National Workshop on Effective Management of E-Resources in Research Libraries
12-17 October, 2015

Course Manual

ICAR-Central Marine Fisheries Research Institute
(Department of Agricultural Research and Education, Government of India)
P.B. No. 1603, Ernakulam North P.O., Kochi - 682 018, Kerala, India
National Workshop on Effective Management of E-Resources in Research Libraries

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Library and Documentation Centre
ICAR-Central Marine Fisheries Research Institute
(Indian Council of Agricultural Research)
P.B. No.1603, Ernakulam North P.O.,
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http://www.cmfri.org.in
Libraries play inevitable role in the growth of research organizations by linking knowledge sources with the researchers. In the modern scenario, new technologies developed in Information and Communication contributed much to the development of research libraries. Library professionals need to innovate their services with these modern technologies to cope up with the changing requirements of the users.

The National Workshop on “Effective Management of E-Resources in Research Libraries” is the first of its kind organised by the Library & Documentation Centre of ICAR-Central Marine Fisheries Research Institute, Kochi. Periodic trainings on newer technologies developed in the field of Library & Information Sciences help library professionals to enhance their professional competencies that will contribute largely to the output of the parent organization.

Digital repositories are the need of the hour where the Institute can showcase the research findings. ICAR-CMFRI is a pioneer in developing Institute repository and the open access repository of the Institute "eprints@cmfri" now stands 1st among ICAR Institute repositories, 3rd among Indian repositories and 343rd among the world repositories. Topics of current relevance towards development and modernisation of research libraries are included in the Workshop which is expected to help the participants to understand the possibilities and ways of supporting the research activities of the parent Institution more effectively.

I congratulate the organising team led by Smt. P. Geetha, Co-ordinator of the workshop & Officer-in-Charge, Library, Dr. K. S. Sobhana, Principal Scientist & Scientist-in-Charge, Library, and the entire staff of the Library & Documentation Centre of CMFRI for their sincere efforts in successful organisation of this National level workshop.

October, 2015

A. Gopalakrishnan
Director
Libraries are integral part of research organisations and have become more and more digital today. A state of the art library is a boon to every research institute. Expectations from the library professionals have also been increased. Well designed and need based training programmes can contribute towards the capacity building of Library professionals. The prime objective of the National Workshop on “Effective Management of E-Resources in Research Libraries” being organised by the Library and Documentation Centre of ICAR-CMFRI, is to expose the participants to the state of the art in library systems and to train them on how to develop and modernise their respective Institutional Libraries. I hope the workshop will help to improve the professional competencies of the participants and update them on modern trends in managing digital Libraries. Participants will be trained to develop their own Institutional Repositories using the open source software DSpace and will be made familiar with the open access repository of CMFRI, eprints@cmfri.

Resource persons and participants cover a spectrum of ICAR Institutes, SAUs and other Research organisations. I express my sincere appreciation to all the resource persons for accepting our invitation and for sharing their valuable experiences and knowledge with us. This manual is the compilation of the lecture notes provided by the resource persons, which I hope will be effectively utilised by library professionals.

I am indeed grateful to Dr. A. Gopalakrishnan, Director, ICAR-CMFRI, who extended all the motivation, support and cooperation in successfully organizing the workshop. I am also grateful to Dr. K.S. Sobhana, Scientist-in-charge, Library for her proper and timely guidance in organizing the workshop smoothly. I have great pleasure in extending my gratitude to all my colleagues of the Library and Documentation Centre for their sincere and whole hearted assistance in organization of the workshop.

I place on record my sincere thanks to the Scientist-in Charge, HRD Cell for extending all the support. I also thank the staff of the Administrative & Accounts sections and all other staff of CMFRI who extended timely support in organizing the workshop.

October, 2015

P. Geetha
Co-ordinator
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Effective Management of E-Resources in Research Libraries

DSpace

Liny Varghese

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Kochi, Kerala
**DSpace**

**DSpace Architecture**

DSpace is a platform that allows you to capture items in any format—text, video, audio, and data. It distributes it over the web. It indexes your work, so users can search and retrieve your items. It preserves your digital work over the long term.
DSpace is typically used as an institutional repository. It has three main roles:

- Facilitate the capture and ingest of materials, including metadata about the materials
- Facilitate easy access to the materials, both by listing and searching
- Facilitate the long term preservation of the materials

DSpace can be used to store any type of digital medium. Examples include:

- Journal papers
- Data sets
- Electronic theses
- Reports
- Conference posters
- Videos
- Images

**DSpace communities**

Each DSpace service is comprised of Communities—the highest level of the DSpace content hierarchy. Communities may be:

- Departments
- Labs
- Research Centres
- Schools

Each community contains descriptive metadata about itself and the collections contained within it

**The DSpace Collection**

Each community in turn has collections which contain items or files. Collections can belong to a single community or multiple communities (collaboration between communities may result in a shared collection). As with communities, each collection contains descriptive
metadata about itself and the items contained within it. Structures may be based around organisational units. Structures are hierarchical.

For example:

<table>
<thead>
<tr>
<th>Community</th>
<th>Collection</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Research Group</td>
<td>Items</td>
</tr>
<tr>
<td>Department</td>
<td>Item Type</td>
<td>Items</td>
</tr>
</tbody>
</table>

**Creating a Community**

To create a community, you must be an administrator and signed into DSpace. Creation of a typical Community involves:

- Choosing the type of community
  - Top level community
  - Sub Community
- Completing the descriptive metadata for the community
- Configuring the community’s authorisations (access rights)
- Sign into DSpace as an administrator
- Select ‘Community & Collection’ from the browse menu
- Select ‘Create Top-Level Community’ from the Admin Tools menu
- Complete the descriptive metadata for the Community

- Completing the descriptive metadata for the community
  - There are basic descriptive fields for each community which describes information about the community and its collections. These generally are the community
    - **Title**: The title of the community.
    - **Short title**: A short description of the community.
Effective Management of E-Resources in Research Libraries

- **Introductory text**: Introductory text describing the community

- **Copyright text**: Copyright text pertaining to anything contained within the community

- **Side bar text**

- **Logo**: A logo for the community.

- Configuring the community’s authorizations. These are the access rights which determine who can view, modify and delete the community and its associated metadata.

- Click ‘Create’ to complete the Community

**Creating a Collection**

To create a collection, you must be an administrator of the parent community. Creation of a typical collection involves:

- Selecting the parent community of the collection
- Answering some initial questions about the collection
- Entering the descriptive metadata for the collection
- Setting the collections authorisations (users who can submit new items)
- Configuring the workflows for the collection (see module: Workflows)
- Configuring the collections authorisations (access rights)

Navigate to the parent Community of the collection to be created

- Select ‘Create Collection’ from the Admin Tools menu
- Select the appropriate statements that apply to this collection
- Complete the descriptive metadata for the Collection
- Select the users who can submit to the Collection and the ‘Next’
- Click ‘Update’ to complete the collection creation process
- Entering the descriptive metadata for the collection
There are basic descriptive fields for each community which describes information about the community and its collections.

These generally are the community

- **Title:** The title of the collection.

- **Short Description:** A short description of the collection.

- **Introductory text:** Introductory text describing the collection

- **Copyright text:** Copyright text pertaining to anything contained within the collection

- **Side bar text**

- **License:** The default license associated with items in this collection.

- **Provenance**

- **Logo:** A logo for the collection.

• Setting the collections authorisations

  o This determines which individual users or group are authorised to submit items to this collection. To add a user, click ‘**select E-People**’ choose the users who are authorised for submission, close the pop up window and click ‘next’.

• Configuring the collections authorisations

  o These are the access rights which determine who can view, modify and delete the collection and its associated metadata

**Items**

Items are one of the core concepts in DSpace. An item a representation of the files and metadata bought together to make an atomic unit. This module introduces items and the constituent parts of metadata, bundles and bitstreams. The module concludes with a description of the standard submission interface and a practical exercise to submit an item.
An item is made up of three components.

- **Metadata**: Metadata is required to describe the item. Without metadata no one would understand what the item was.
- **Bundles (e.g. ORIGINAL / LICENCE / TEXT)**: Bundles are collections of files. Typical bundles include the ORIGINAL bundle which contains the raw files deposited into the repository, the LICENCE bundle which contains a copy of the license that was agreed to during submission, and TEXT which includes the extracted text (for indexing purposes) for each file in the ORIGINAL bundle.
- **Bitstreams**: Each file uploaded into DSpace, or created by DSpace is considered a bitstream. A bitstream refers to the fact that a file is simply a stream of ‘bits’ (0s and 1s) held on storage medium such as a disk.

A typical submission:

- Choose a collection to submit to
- Answer some initial questions
- Enter some metadata
- Upload some files
- Verify the submission
- Agree to the deposit licence

**A typical submission**

A typical submission involves the following steps:

- Choose a collection to submit to
  - This can be done by either using the ‘Submit to this collection’ button within a collection, or by selecting the ‘Start a New Submission’ button on the ‘My DSpace’ page, and choosing the relevant collection from the drop down box that appears.
• Answer some initial questions
  o The initial questions are required in order for DSpace to customize the submission process. The questions are:
    ▪ The item has more than one title, e.g. a translated title (DSpace will provide a box for an alternative title to be provided)
    ▪ The item has been published or publicly distributed before (DSpace will ask for a bibliographic citation, a publisher, and a date of publication)
    ▪ The item consists of more than one file (DSpace will allow the user to upload more than one file)
  • Enter the metadata
    o There are fields for the metadata. Typical fields include title, author, abstract, citation and date of publication.
    o The metadata required is configurable. See the module ‘An introduction to metadata input customization’ for details.
  • Upload the files
    o You can upload one or more files. Files are uploaded by selecting them in the browser.
  • Verify the submission
    o DSpace will present all the metadata you have entered back to you, along with the files. This allows you to confirm that the data is correct. If it is not, it gives you the opportunity to correct the data.
  • Agree to the deposit license
The final stage of the deposit requires you to agree to a deposit license. A copy of the license is deposited along with the item.

**Users and Groups**

Users require accounts to be able to log in and submit or edit items. Logical collections of users can be placed in groups to make administration easier. Some users have additional rights that let them administrate the software. User accounts are required in DSpace in order to allow DSpace to differentiate between users of the software. There are different privileges that can be assigned to users:

- **Anonymous user**: If not logged in, users of DSpace are considered ‘anonymous users’. Privileges such as viewing items are often given to the anonymous user so that anybody can view the items.
- **Normal user**: Once logged in, normal users can be given privileges in order to allow them to submit to different collections. Individual users can be given rights in certain areas such as editing items in one particular collection.
- **Administrator**: Some users can be made administrators. They have full access to all functions on all items in DSpace.

**Creating users**

This description of creating users relates to DSpace instances that are configured to use the in-built password authentication system in DSpace. The module ‘User management and authentication’ explains how to use and configure other authentication systems.

Users can register by following these steps:

1. From the DSpace front page, click on the link ‘My DSpace’ in the left hand menu bar.
2. Rather than logging in, select the link ‘New user? Click here to register.’
3. Enter an email address in the box provided, and press the ‘Register’ button.

An automatic email will now be sent to the user. The user must follow the link contained in the email to complete the registration process. An email is sent to the user in order to stop
a spammer creating hundreds of accounts. Accounts can only be created by people with individual email accounts.

4. Click on the link in the email to go to the final registration page. Provide your first and last names, and a contact telephone number, and enter and confirm a password. Once this is done, press ‘Complete Registration’.

The user will now have an account which they can use to log in by visiting the ‘My DSpace’ link. A newly created default user will only have the same permissions that an anonymous user has.

**Groups**

DSpace is able to combine users into logical groups. This can assist with user management. If you have a collection of users, all of whom need the same privileges then create a group for them. When it comes to granting the privileges, grant them to the group rather than each individual user.

You may wish to use groups as follows:

Groups for faculty from different departments:

- Create a group called ‘History staff’ and add all relevant users to that group. Those users will then inherit the privileges associated with that group.

Users can be a member of multiple groups. For example an administrator may work for two different departments. By putting them in both groups they will inherit both sets of privileges. Groups can be members of other groups.

**Special groups**

There are two special groups in DSpace:

- Anonymous: The anonymous group does not normally have any users added to it.
- Administrator: The administrator group contains all the users who require system administrator level access.
Creating the first administrator
Before any users can be assigned privileges, an initial administrator must be created. This administrator can then grant privileges to other users, and can make other users administrators also.

Creating the first DSpace user requires direct access to the DSpace server so that DSpace knows they are a trusted user.

The following command is used to create the administrator:

```
# /dspace/bin/dspace create-administrator
```

You are prompted to enter an email address, first name, last name and password. Once this user is created, you can use it to log in to DSpace.

The application architecture
The DSpace system is organised into three tiers which consist of a number of components. Each layer only invokes the layer below it i.e. the application layer may not use the storage layer directly.

The Storage Layer
The storage layer is responsible for physical storage of metadata and content. DSpace uses a relational database to store all information about the organization of content, metadata about the content, information about e-people and authorization, and the state of currently-running workflows.

The Business Logic Layer
The business logic layer deals with managing the content of the archive, users of the archive (e-people), authorization, and workflow.

The Application Layer
The application layer contains components that communicate with the world outside of the individual DSpace installation, for example the Web user interface and the Open Archives...
Effective Management of E-Resources in Research Libraries

Initiative protocol for metadata harvesting service. The DSpace Web UI is the largest and most-used component in the application layer. There are two versions:

1. JSPUI: Built on Java Servlet and JavaServer Page technology
2. XMLUI (Manakin): Built on XML and Cocoon technology

The Server Architecture

- The **user interface** is the visual front end to the DSpace software. It is viewed through a web browser such as Microsoft’s Internet Explorer or Mozilla Firefox. There are two separate front ends to DSpace, these being the Java Server Page (JSP) interface and the Manakin interface. For instructions on how to view these, please see the ‘local instructions’ manual.
- The **web application server**, either Apache Tomcat or Jetty sits between the User Interface and the Disk/File Store and Database and serves the web pages requested by the user of the repository.
- The **disk/file store** is where items placed in the repository reside.
- The **database**, either Postgres or Oracle is all the information about the organization of content, metadata about the content, information about e-people and authorization, and the state of currently-running workflows is stored.
Backup

**Asset Store** - This is where the bitstream files are located.

**Database** - This is where information about organization of content, metadata about the content, information about e-people and authorization, and the state of currently-running workflows is stored.

**Source Directory** - This is where the DSpace source code is located.

**Installation Directory** - This is where the files are located which are used by DSpace as it runs.

Run these commands at the terminal to take the backup:

- Open terminal
Connect the external device (hard disk or pen drive) to store the backup data

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>What to backup</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Installation</td>
<td>cp –R /dspace &lt; location of external device install folder &gt;</td>
</tr>
<tr>
<td>2</td>
<td>Source folder</td>
<td>cp –R /usr/local/dspace-5.3-src-release &lt; location of external device source folder &gt;</td>
</tr>
<tr>
<td>3</td>
<td>assetstore</td>
<td>cp –R /dspacestore/ &lt; location of external device folder/assetstore &gt;</td>
</tr>
<tr>
<td>4</td>
<td>postgresql</td>
<td>pgdump dspace2015 &gt; dspace-2015-10-01.sql</td>
</tr>
</tbody>
</table>

The Repository Manager & Technical Staff

Technical staff will be required to configure, customise and manage many features of the repository via the back end.

Installation steps

1. **Create the DSpace user.** This needs to be the same user that Tomcat (or Jetty etc.) will run as. e.g. as root run:

   ```bash
   useradd -m dspace
   ```

2. **Download** the latest DSpace release.

3. **Unpack** the DSpace software

   ```bash
   unzip dspace-5.x-release.zip
   ```

4. **Database Setup**

   **PostgreSQL:**

   - Create a dspace database user. This is entirely separate from the dspace operating-system user created above *(you are still logged in as "root"):*
createuser --username=postgres --no-superuser --pwprompt dspace

- You will be prompted (twice) for a password for the new dspace user. Then you'll be prompted for the password of the PostgreSQL superuser (postgres).

- Create a dspace database, owned by the dspace PostgreSQL user *(you are still logged in as 'root')*:

```
createdb --username=postgres --owner=dspace --encoding=UNICODE dspace
```

- You will be prompted for the password of the PostgreSQL superuser (postgres).

5. **Initial Configuration**: Edit `[dspace-source]/build.properties`. This properties file contains the basic settings necessary to actually build/install DSpace for the first time (see build.properties Configuration for more detail). In particular you'll need to set these properties -- examples or defaults are provided in the file:

- `dspace.install.dir` - must be set to the `[dspace]` (installation) directory *(On Windows be sure to use forward slashes for the directory path! For example: "C:/dspace" is a valid path for Windows.)*
- `dspace.hostname` - fully-qualified domain name of web server.
- `dspace.baseUrl` - complete URL of this server’s DSpace home page but without any context eg. /xmlui, /oai, etc.
- `dspace.name` - "Proper" name of your server, eg. "My Digital Library".
- `solr.server` - complete URL of the Solr server. DSpace makes use of Solr for indexing purposes.
- `default.language`
- `db.name` - postgres or oracle
- `db.driver`
- `db.url`
- `db.username` - the database username used in the previous step.
- `db.password` - the database password used in the previous step.
- `mail.server` - fully-qualified domain name of your outgoing mail server.
- `mail.from.address` - the "From:" address to put on email sent by DSpace.
- `mail.feedback.recipient` - mailbox for feedback mail.
- `mail.admin` - mailbox for DSpace site administrator.
- `mail.alert.recipient` - mailbox for server errors/alerts (not essential but very useful!)
- `mail.registration.notify` - mailbox for emails when new users register (optional)
6. **DSpace Directory:** Create the directory for the DSpace installation (i.e. [dspace]). As root (or a user with appropriate permissions), run:

   mkdir [dspace]
   chown dspace [dspace]

7. **Build the Installation Package:** As the dspace UNIX user, generate the DSpace installation package.

   cd [dspace-source]/dspace/
   mvn package

8. **Install DSpace and Initialize Database:** As the dspace UNIX user, initialize the DSpace database and install DSpace to [dspace]:

   cd [dspace-source]/dspace/target/dspace-[version]-build
   ant fresh_install

9. **Deploy Web Applications:**
   
   cp -r [dspace]/webapps/* [tomcat]/webapps
   
   /etc/init.d/tomcat7 restart

10. **Administrator Account:** Create an initial administrator account:

    [dspace]/bin/dspace create/administrator
Latest Trends in Library Management

Emerging Trends

Dr. Neena Singh
INSTITUTIONAL REPOSITORIES/

E- RESOURCES

• Engaging Patrons with Social network
• Web 2.0 interactive library web sites
• Open Access and Consortiums
• Subject Gateways
• Information Literacy

Emerging trends

<table>
<thead>
<tr>
<th>Cloud computing</th>
<th><img src="image" alt="Cloud computing" /></th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet of things</td>
<td><img src="image" alt="IoT" /></td>
</tr>
<tr>
<td>Crowd sourcing</td>
<td><img src="image" alt="Crowd sourcing" /></td>
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<tr>
<td>Big Data</td>
<td><img src="image" alt="Big Data" /></td>
</tr>
<tr>
<td>MOOCs</td>
<td><img src="image" alt="MOOCs" /></td>
</tr>
</tbody>
</table>
What is a cloud?

Is Combination of servers, network connection, application software's and resources.

Is a computing technology which facilitates sharing of resources and services over internet, rather than having these services and resources and on Local servers or personal devices.

Cloud computing is a Resource Pooling technology for libraries to provide access to number of services and resources as per demand of users.

Virtual technology

Usage of Cloud Computing
Common Usage of CC with libraries

- Development of digital libraries / Access to OPAC
- Using / Sharing of resources on virtual environment on the web photos on Flickr, Facebook or Google talk, Gmail

Uses of Cloud Computing

- Any one connected to Internet is using some type of Computing on regular basis.
- Whether using Gmail, photos on Flickr, Google talk or twitter

Cloud Computing

- Interesting thing about CC is that it did not start as a technology for business enterprise but was driven by public services like Face book and Flickr

    Moor Geoffrey
### Four types of Cloud Computing

<table>
<thead>
<tr>
<th>Type of Cloud Computing</th>
<th>What is it</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure Type</td>
<td>Buying space or time on external servers</td>
<td>Amazon A3</td>
</tr>
<tr>
<td>Platform Type</td>
<td>Using existing software platform on Internet to build own applications for providing services</td>
<td>Facebook, twitter etc.</td>
</tr>
<tr>
<td>Applications Type</td>
<td>Application software's can be used/accessed with web browser</td>
<td>Google Docs, Monkey Survey can be used to collect data</td>
</tr>
<tr>
<td>Services Type</td>
<td>Ready to use services</td>
<td>ADP</td>
</tr>
</tbody>
</table>
Uses of Cloud Services

<table>
<thead>
<tr>
<th>Uses of Cloud Services</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing Services</td>
<td>Gmail, Yahoo, Hotmail, Sify, Indiamail etc.</td>
</tr>
<tr>
<td>Forums</td>
<td>LIS Forums, LIS link, India Talks</td>
</tr>
<tr>
<td>Data /Information</td>
<td>Survey Monkey, Google Forms, Poll everywhere, Zoomerang, Zuhu creator</td>
</tr>
<tr>
<td>Collection</td>
<td>Social Networking</td>
</tr>
<tr>
<td>File Sharing</td>
<td>Slide Share, Drop box, Google Drive etc.</td>
</tr>
<tr>
<td>Video Sharing &amp;</td>
<td>You Tube, Google presentation, Screen Caste, Jing</td>
</tr>
<tr>
<td>Presentation</td>
<td>Software and Applications</td>
</tr>
</tbody>
</table>

Cloud Computing: Libraries

Libraries: Have been using CC Services for over a decade

Some of the Cloud based Application

Access to Online databases.

Access to Large Union catalogues (world cat OCLC)
Cloud Computing solutions in libraries

Jeff of Amazon states that business that runs on own application/closed system spend 70% of time and money building & updating infrastructure. It leaves only 30% of time to work on innovations and grow business.

With using CC resources this ratio can be inverted giving 70% time & money to grow their business.

CC Solutions: Technology Improvements

Library Management System / Automation software's were developed before Internet or WWW existed & were closed proprietary system. eg.: Libsys

- Was difficult & Costly for closed system to take advantage of new technologies, libraries had to rely on vendors to do integration.
- Many Cloud offered solutions of openness/open access with published application program interfaces that any programmer can take advantage e.g.: KOHA

Benefits of Cloud Computing

- When library systems are deployed to open cloud libraries can get solutions from other library community rather than from vendors.
- Libraries can get out of technology Business and focus on collection building, patron Services etc.
- CC can Helps libraries shift away from owning and operating local server to web based servers and services. No longer replace every 5 years and worry about upgrades.

Benefits of Cloud Computing

<table>
<thead>
<tr>
<th>• Location independence</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• 24x7 support</td>
<td></td>
</tr>
<tr>
<td>• Pay as you Use</td>
<td></td>
</tr>
<tr>
<td>• Secure Storage &amp; Mgt.</td>
<td></td>
</tr>
<tr>
<td>• Sustainability</td>
<td></td>
</tr>
</tbody>
</table>
What is Internet of Things?

Is Network of things or Physical objects embedded with electronics, sensors, software’s and connectivity to enable objects to exchange data with other connected devices (based on Int. telecommunication Union global standard initiative).

- IOT – Objects can be sensed and controlled remotely across existing infrastructure.
- IOT – Is expected to generate large amount of data from diverse locations that is generated very quickly. (increasing the need to better index/store and process such data)
IOT: Importance

- IOT - was coined by British Entrepreneur Kevin Ashton in 1999.
- IOT is expected to offer advanced connectivity of things, devices, systems and services that goes beyond M2M communication.
- Interconnection of these embedded devices is going to *usher automation in all fields*.

IOT: Applications

Main application of IOT is For:

- Tracking – Monitoring – Controlling from remote locations managing things smartly

It develops smart Management System

Current Examples

<table>
<thead>
<tr>
<th>Every Day Life</th>
<th>In Library</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Smart thermostat for controlling/monitoring system</td>
<td>• RFID</td>
</tr>
<tr>
<td>• Smart washers/dryers that utilize Wi-Fi</td>
<td>• Inventory control</td>
</tr>
<tr>
<td>• Automated toll collection</td>
<td>• Tracking of books</td>
</tr>
<tr>
<td>• AC/TV and electrical devices that can be controlled remotely available in market</td>
<td>• Tracking of books</td>
</tr>
</tbody>
</table>
IOT: Early Stages

IOT: popular in 1999 through Auto ID centre at MIT.

- RFID was seen pre request for IOT in early days.
- If all objects in daily lives were equipped with identifiers/sensors, computers can manage & inventory them.
- Through RFID, tagging of things can be achieved through such technologies.

Large Scale Deployment (LSD)

- On-going LSD of IOT for better management of cities.
  - *Songdo city in South Korea* first of its kind near completion.
- Everything is fully equipped and wired smart city.
- The city is planned to be connected and turned into constant stream of data that would be monitored by computers without much human intervention.

Large scale Deployment of IOT

- Other example large scale deployment.
- New York water ways in NYC to connect all their vessels and being able to monitor them live 24/7 covering Hudson River.
- Network was designed & engineered by Fluid mesh Networks Company.
- Applications include security, fleet management, digital signage, paper less ticketing etc.

IOT: Present Situation

- Is in developing stage it’s good to remember what internet was in infancy.
- In 1995 most internet connectivity was slow, laptop was rare idea of tablet/Ipad or kindle was imaginary.
- Those days people didn't have e-mail, players like Google, Facebook, Amazon, YouTube, and Twitter were years away.
Situation of IOT –Today

- We are with IOT in early stage.
- Some industries have done well with embedded & connected logistics like application RFID.
- Libraries have been using RFID tags/chips to create small spaces of connected things to for tracking of books and smart kiosks for self check/check out.

IOT: Application in library

<table>
<thead>
<tr>
<th>Totally wired library:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Things</td>
</tr>
<tr>
<td>Books/CD’s /journals</td>
</tr>
<tr>
<td>Computers</td>
</tr>
<tr>
<td>AC/Fans</td>
</tr>
</tbody>
</table>

Library things can be monitored/controlled tracked by embedding these things with sensors, software’s, electronic and connectivity to enable library objects to exchange data with other connected devices.
Crowd Sourcing

Crowd sourcing is the process of getting works or funding usually online from crowd of people.

Word Crowd sourcing is a combination of the word Crowd and Outsourcing

Idea is to take work and outsource it to a crowd of workers.

- Best Example
  - Wikipedia: instead of Wikipedia creating an encyclopaedia on their own, hiring writers and editors, they gave a crowd the ability to create the information on their own.

The result...?

The most comprehensive encyclopaedia this world has seen

Why Crowd Sourcing

- Quality, knowing opinion of people, improvements.
- Main principle of CS is that more heads are better than one.
- By canvassing to a large crowd of people for ideas, skills or participation. The quality of content and idea generation will be superior.

Crowd Sourcing

- In Radio program Indian PM asked for pictures Incredible India.
- What he should speak
- U S president ask the crowd to donate
- Design of sign of Rupee
- Looking for Logo design
- Crowd sourcing thus increases quality/decreases the price to get a work done
Applications of Crowd Sourcing

Looking for logo: Tell crowd of designers

What you want/ U will pay/Deadline. Interested designers will create design of logo which you can choose from.

CS- Can be used to get designs for furniture's, product design/fashion/advertisements etc.
Big Data is coming to the World much faster than you can think.

The Schools, hospitals, colleges, manufacturers, libraries etc. create /have lot of data.

They have begun to collect and store.

The main goal – is make use of these data to provide new valuable services to improve upon efficiency and take better decisions.

Analyse big data and make predictions based on it.

What is Big Data (BD)?

Big data – broader term is large and complex data sets that traditional data processing applications are inadequate.

According to IBM report every day we create 2.5 quintillion bytes of data (by Univ. Industries, govt.)

CISCO predicts global IP traffic will grow to more than 330 Exabyte's (http://investor.cisco.com)
Big data size

Big data differs from regular data - size of datasets is huge, how huge depends on industry or discipline.

Big Data - that cannot be stored or analysed by conventional hardware and software's

Handling Big Data requires massively parallel running on tens, hundreds even thousands of servers.
Characteristics of Big Data

- **Big data** – is characterised by 3 Vs
  - **Volume**
  - **Velocity**
  - **Variety**

**Volume** - Huge size data that cannot be stored/analysed by hardware’s/software’s big data tools can handle terabytes & petabytes size data (not kilo/megabytes).

**Speed** - Refers to speed in which data is created imagine speed by which tweets are created in twitter or posted to Facebook or by remote sensors measure.

**Variety** - makes big data sets more challenging to organise & analyse traditional data could be controlled and structured into spread sheet with specific rows & columns.

Big data contains unstructured data such as email/sms/tweets/postings on Internet forums.

**What Librarians Need to Know about Big Data?**

- Librarians have been great at Information Management and Organisation.
- They have ability to analyse data and transform user’s information needs into strategies & resources investigation & learning.
- Today, lots of posts on data scientist (who understand internet, database, analytics, visualization etc.)
Big Data

<table>
<thead>
<tr>
<th>Data Science Professionals (DSP)</th>
<th>Librarianship</th>
</tr>
</thead>
</table>
| Task – transform raw, messy data into actionable knowledge  
  • That can be used by decision makers | Mission of librarianship is to facilitate knowledge creation, knowledge organisation/dissemination etc.  
  Librarian can exercise a no of skills on understanding user need of information and Data Curation. |

**Key Values driving librarianship**

<p>| | |</p>
<table>
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<th></th>
<th></th>
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<tbody>
<tr>
<td><strong>Librarian</strong> does not need to be programmer.</td>
<td>• But should know how software tools can analyse/transform data.</td>
</tr>
<tr>
<td><strong>Librarian</strong> need not be database engineer.</td>
<td>• But understand information retrieval tools.</td>
</tr>
<tr>
<td><strong>Librarian</strong> need not be statistician.</td>
<td>• But have understanding of how numeric data can be used or misused.</td>
</tr>
<tr>
<td><strong>Librarians</strong> are not data scientist.</td>
<td>• But they need to know basics of Big data &amp; to facilitate academic research process.</td>
</tr>
</tbody>
</table>

**Users of Big Data**

- Earlier Users of Big data were Born Digital Firms that relied on analysing large data sets to know about their success like Facebook, LinkedIn, Google and twitter etc.
Librarians need to know

• Where Big data can be found
• How big data is used
• Accept role in making big data sets/accessible by creating databases and creating metadata schemes.

Big data and libraries

• Libraries should examine what type of big data sets they could be gathering eg. Users’ feedback data on social network (Facebook, twitter etc.) on books or etc. users daily statistics on books issues /returned on particular discipline.

• The library has opportunity to measure massive data and analyse for decision making /improving services.

Big Data and libraries

• Libraries can be involved in data curation. As part of storing Faculty scholarly research and making it accessible can also store faculties’ raw research data for others to use.

Uses of Big data for libraries

Libraries can **gather big data for analysis to make data driven decisions.**

Example – what type of **big data** can be used to make **better decisions** about collection **development, updating social /public space.**

Tracking **use of library materials.**

Understand **issues and opportunities big data offers to**

**Researcher, administration and librarians**
MOOCs

What is MOOCs

• Massive Open Online Courses – Are a new online learning model that offers free higher education courses to anyone with an internet connection and keen interest to learn.

• No application process and No fees required.

Benefits of MOOCs

• MOOCs allow following course contents at students own pace.

• Re-watch sections of the lectures that covered tricky concepts.

• Interact with enormous number of engaged students from around the world.

• Demonstrate what has been learnt through some well-designed online quizzes & assessment tools.
Importance of MOOCs

MOOCs are massive open online courses that enrol any one for free.

MOOCs provide /facilitates to a massive number of learners free online courses from anywhere all over the world.

Requires creating a user account, find a course that interests you and drive in.

Gain exposure to course content that would cost heavy enrolment fees.

MOOC Providers

<table>
<thead>
<tr>
<th>Major MOOCs Providers:</th>
</tr>
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<tbody>
<tr>
<td>• edX</td>
</tr>
<tr>
<td>• Udacity</td>
</tr>
<tr>
<td>• Coursera</td>
</tr>
</tbody>
</table>

MOOCs Providers

edX is a Non-profit company created by Harvard & MIT

Hosts 9 online courses taught by these Universities on computer sciences, artificial intelligences etc.

Students can view pre-recorded lectures, complete embedded exercise, submit assignments etc. Supporting literature free e-books are provided to students.

Udacity is a for Profit Company founded by Stanford Professor Sebastien.

Developed 19 courses focuses on sciences of computer science, physics, & Statistics. Artificial intelligence course enrolled 150,000 students.

Coursera is a for Profit Company.

Offers 200 courses covering humanities, biology, maths, medicine etc. created by faculties of 30 universities like Princeton, Stanford Virginia etc.

Students watch lectures with embedded quiz, assignments, peer reviews, collaboration via online forums.
MOOCs - Professional development tools for Librarians

Librarians can use MOOCs to have hands on experience with particular technologies e.g. courses in Computer sciences- and develop technological expertise. Management courses – develop managerial skills, HRD, organisational behaviour etc.

LIS Courses through MOOCs

- Schools of LIS are beginning to roll out MOOC’s e.g.
- Schools of Information Studies Syracuse Univ. is offering New Librarianship Master classes
- School of LIS San Jose State university offered Hyperlinked library MOOC’s in 2013
- Such courses can help librarians build on LIS training.

MOOCs

MOOCs are likely to be part of higher education landscape for years to come, therefore.

Distance learning and MOOCs

Teachers praise MOOCs for ability to distribute lectures to large audience and distance learning.

Students enjoy the flexibility of free tuition, video lectures, and access to elite university faculty.

Librarians need to address library services in distance learning through MOOCs.
How libraries help MOOCs students

- Librarians can develop MOOCs courses on information literacy skills.
- Students need to enhance their IL skills in order to be able handle MOOCs /online content.
- Librarians can get embedded Ask a librarian features on MOOCs platform.
- Provide links to open access tutorials and research guides sections in university library websites.
Advanced Automation Technology

Dr. Neena Singh
Popular Technologies

To speed up Library services

Bar Code

RFID – (Radio Frequency Identification)

(Is a technology that uses radio signals to identify specific signals)

RFID System consists of RF device that communicates with tags embedded with single chip processor and an antenna.

Decide priority

Priority for Security / Protection only

- Circulation Mgt by Barcodes /scanners, handheld
- Electro Magnetic Products/ Gates – 3M Gates works on Electromagnetic field
- Books are fixed with tattle tapes

If Priority is Inventory Management

RFID is solution (works on radio frequency)

- Quick check-in checkout
- Drop Box
- Self Check-in check-out Kiosk
- Automatic Sorter and Conveyer belt
- Security Gates
Priority –both

- Security and Inventory Management
  - Hybrid System -
  - For Inventory - RFID system (without gates), Kiosk, book drop, scanners hand held, sorter etc
  - For Security – Tattle tapes and 3M gates
  - Tags (Rs 15-18 /-) and Tattle tapes (Rs 12-15/-) both will be fixed in books cost goes up

Why This Technology

- Manage Issue/return efficiently(repetitive)
- Security System
- 24X7 hours Book Drop facility (automatic Check in)
- Self Check in & Checkout by automated kiosks
- Stock management
- Sorting in automated bins

RFID in Library management
Barcodes vs. RFID

<table>
<thead>
<tr>
<th>BAR CODES</th>
<th>RFID</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Visible (barcodes)</td>
<td>Tags (not visible/sightless)</td>
</tr>
<tr>
<td>• Cost - very cheap</td>
<td>No line of sight</td>
</tr>
<tr>
<td>• Issue &amp; Return by scanning each barcodes</td>
<td>Cost per Tag – Rs. 15 -18</td>
</tr>
<tr>
<td>• Another technology required for security of</td>
<td>10-12 books can be issued at a time by placing</td>
</tr>
<tr>
<td>books / (3M – Tattle Tapes)</td>
<td>in Flat Antenna</td>
</tr>
<tr>
<td></td>
<td>• Theft detection/security</td>
</tr>
<tr>
<td></td>
<td>available by EAS gates</td>
</tr>
<tr>
<td></td>
<td>• Tags</td>
</tr>
</tbody>
</table>

Important features

- Faster Check in/Checkout
- Number of books/items can be checked out at a time.
- Circulation staff is freed for other tasks
  No repetitive stress
- Comprehensive system - address both security and item tracking need of library.

Components of RFID

Security gates - (2 or 3 pedestals)
2. Staff station for - Circulation Desk
3. Hand held Readers
4. Self-Check-in, Check out-kiosk
5. Book Drop Box for check in
6. RFID Tags – For Books journals, CD’s
7. RFID Smart cards – 1kb (Mifair)

Electronic article surveillance - Gates

Read range 1 meters
Effective Management of E-Resources in Research Libraries

Unauthorised lifting

- Security and Theft detection
- Intentional or accidental removal of books is difficult
- Benefits: reduces the cost of replacing the books/items (as they are not lost)

- Finance saving and audit

**Staff Station**

<table>
<thead>
<tr>
<th>Circulation Desk</th>
<th>Read Range</th>
</tr>
</thead>
</table>
| ![Staff Station Image] |  • Read range of Staff station should be 25-30 cm / 12 inches  
  • It should read membership No. Of concerned patron card only.  
  • Larger read range will capture/read patron card of other students in the surrounding area. |

**RFID Antenna and reader**

![RFID Reader Image]
Staff Station

<table>
<thead>
<tr>
<th>Flat Antenna and RFID Reader</th>
<th>A working staff station : Circulation desk</th>
</tr>
</thead>
</table>

How is Functions

Tags

Tags are capable of storing and transmitting information vary in design

Type of Tags - Active and Passive (Most used)

Active Tags - have tiny batteries for power sources which improves read range up to 30 meters

Passive Tags - Low Frequency-(125 Khz) Read range less than M

High Frequency-(13 Mhz) Read range 1 M

Ultra High Frequency (6-8 meters)
Other components

| RFID Middleware’s – software’s for integrating with existing library automation software. |
| Communication Protocols - like NCIP /SIP 2 Required to communicate between RFID Hardware and software. |

Shelf Management

Facility to Scan and read Call No. and Accession No. By Hand held Scanners (HHS)

Call No. in shelf can be read by HHS to find misplaced book

Accession No. can be scanned on shelf for stock taking.

Benefits: Easy shelf reading and labour saving and correction process.

Higher customer satisfaction with correct shelving order.

Staff Experience

Staff: Experience greater job satisfaction from less repetitive tasks
Satisfaction: Having ability to improve customer services
Professional Skill: Staff can exploit professional skills & oppose clerical works
Financial: Reduces cost of replacing books/security
Labour saving: On inventory process, stock verification Self check in and check out.
Automated Kiosks

- RFID Technology facilitates Self check-in Check-out kiosk
- Patrons are empowered and staff is relieved.
- Staff can engage in other works and exploit their professional skills.
- Greater job satisfaction less repetitive task oppose clerical skills.

24 Hours Check in

RFID also facilitates 24X7 self-check in through drop box.
When a book is dropped it automatically gets checked in and generates slip as proof

Book Drop Box

Mounted on wall drop box - capable of reading tags on books in whatever directions they are dropped in the drop box.
Patron Satisfaction

→ Less wait time no standing in queue
→ Less dependent on Staff, by use of self check-in /check out kiosk
→ Use of Book drop allows 24x7 returns and flexible timings

→ RFID enabled patron cards easy patron identification

Researches on RFID

• According to a study published in International Journal's Research Journal of Science & IT Management (Vol. 3/No 8 June 2014) By Research Scholar LRA Nagalakshmi
• 16 % librarians Highly Recommended use of RFID to other libraries.
• 22 % librarians recommend to Use RFID

3% did not recommend
Some issues:

- Know about RFID components and specifications clearly before going for RFID.
- Phase wise - Implementation as per need and funds availability.
- Avoid /Remove - Iron and aluminium materials near the entrance / gates to prevent tag and reader collision.
- NCIP/ Middle ware – to be checked
- Wooden partition is a safe option.

Suggestions

Vendor - Experienced vendors should be selected
Check - Client list and speak to Institutions
Insist - On onsite training for your staff
- Check that RFID hardware’s are NCIP & SIP2 Complaint (communication protocol)

Go for RFID - If transaction is large, finally depends on necessity & affordability

Addl. Security - Install CCTV cameras for additional surveillance
Gates - Should be compliant to integrate with CCTV

Select Vendors

- HCL Infosystem, Noida
- Bartonics India
- Libsys Corporation, Gurgaon
- Rapid Radio Solutions, Ahmadabad
- RFID Infoteck, Mumbai
- Total IT solution, New Delhi
- I-Tek, Pune
- R S Barcodes, New Delhi
- Edutech, Chennai
- 3M Library System, New Delhi
- Knowledge Circle, Chennai
Author guidelines for
Online article submission

Directorate of Information and Publications of Agriculture
KRISHI ANUSANDHAN BHAVAN-I
Indian Council of Agricultural Research (ICAR)
Pusa New Delhi 110 012
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Annexure I. Scope and criteria for consideration of article
Annexure II. Guidelines to author
Authors Guide

1. Author

Authors submit manuscripts to the journal directly through the journal’s website. He uploads a submission file and provides metadata or indexing information. (The metadata improves the search capacity for research online and for the journal.) Author can upload Supplementary Files, in the form of data sets, research instruments, or source texts that will enrich the item, as well as contribute to more open and robust forms of research and scholarship. The Author is able to track the submission through the review and editorial process — as well as participate in the copyediting and proofreading of submissions accepted for publication -by logging into the journal’s website.

- Author of original research work are expected to present correct account of the experiment conducted and an objective discussion of its significance.
- Sufficient details should be provided in an article allowing others to repeat the experiment.
- Review articles should also be accurate and objective.
- Authors must retain data for a reasonable time after publication, and should be prepared for scrutiny data.
- It is author’s duty to submit entirely original works, and if have referred work and/or words of others has appropriately cited or quoted. Plagiarism in any form is unethical publishing behavior and is not acceptable.
- Author is not supposed to submit the same article to many journals and is not acceptable.

2. About the Journal

The Indian Journal of Agricultural Sciences

This journal is devoted to experimental agriculture and abstracted by all the major abstracting services. It includes articles on crop science, plant breeding and genetics, cytology, agronomy, soil science, horticulture, water use, microbiology, plant diseases and pest, agricultural engineering, agricultural economics and agricultural statistics with emphasis on original articles, from India and countries having similar agricultural conditions.
The Indian Journal of Animal Sciences
This journal caters to a wide clientele comprising veterinarians, researchers and students. Articles are included on animal breeding and genetics, immunology, biotechnology, epidemiology, medicine and pharmacology, anatomy and histology, surgery, pathology, physiology, nutrition, milk, meat and other animal products, housing and fisheries from India and internationally. This journal is abstracted by all the major abstracting services.
3. **Scope and Criteria for consideration**
The details of type of articles included in the journal or the coverage area of the journal are given in scope and criteria for consideration (Annexure I).

4. **Guidelines to Authors**
Author should consult Guidelines to authors (Annexure II) before submitting the article to the journal. It gives information on in-house style of text, table, figure, reference presentation in the Journal.

5. **The reviewing system**
The number of scientific articles published each year continues to grow, hence the peer-review process, together with the merit of the editorial board, is cited as the primary influence on a journal’s reputation, impact factor, and standing in the field. Reviewers do this difficult job without honorarium as they are good citizens of scientific community. The *ICAR Journals* relies on expert and objective review by knowledgeable researchers to ensure the quality of the papers it publishes. Guidelines to reviewers are presented in Annexure III.

6. **Registering with a Journal**

    Unregistered visitors to a journal may register as a Reader, Author, and/or Reviewer.

    To register with a journal, click the Register link on the topmost navigation bar, select the journal you want to register with if asked, and fill out the ensuing form. All fields with an asterisk beside them (Username; Password; Repeat Password; First Name; Last Name; Email; Confirm Email) are mandatory.

    The username and your email address must be unique; furthermore, while one can change the email address at a later date, one will be unable to change your username. One may be able to register as a Reader, an Author and/or a Reviewer. To register as a Reviewer, reviewing interests are to be given.

7. **On-line article processing**

    - A registered user login directly by entering the user name and password.
    - A new user has to register first.
Effective Management of E-Resources in Research Libraries

7.1 Go to Login
7.2 Go to Registration

Make sure before going to click on register, you have to choose the following options to the journal and please tick the column:

- register as Reader: able to Read
- register as Author: able to submit
- register as Reviewer: able to Review

Note: A Reviewer has facility to join with the Journal to review the manuscript with the permission of Editor and also can be registered directly as Reviewer on the web portal. Reviewers are requested to please submit their all details including Subject Specialization (Major and Minor, 4-5 key words of area of specialization along with their emails.)
7.3 Viewing and Changing your Profile

To view and edit profile, log in and click the Edit My Profile link from the User Home page. Alternatively, once logged in, one can always click the My Profile link from the User Navigation block on the sidebar. From here, one can update the email address, change the personal information, or change password.

7.4 Change Password

The password can be changed on clicking change password under User icon by entering current password and chosen new password.

Resetting Password

Resetting password is a simple process if the user remembers it and just wants to change it to something else: log in, and from the User Home page click the Change Password link. User has to enter the current password, and then the new password twice.

Resetting the password if one has forgotten it, is still a simple process, but it takes a few more steps:
1. Click the Log In link on the topmost navigation bar.
2. Click theForgot Your Password? Link.
3. Enter the email address in the box provided, and click the Reset Password link. This will send a confirmation email to your email address (if one does not see an email in the Inbox, check your spam folder) (Please check the spam folder).
4. The email will include a link to reset the password: click it, and return to the journal web site.
5. On returning to the journal web site, user should be notified that an email containing a new password has been sent to your email address. Check for that second email, and use the new credentials to log into the site.

6. After successfully logging in, user will be used to immediately change the password. Enter the emailed password first (Current Password), and then a new, secret password twice (New Password, Repeat New Password).

7.5 On-line Submission

**Step 1** ensures that the Author understands the journal's submission rules. The Author will have to Click the appropriate section to submit to, and will be provided with information on the journal’s privacy statement, copyright notice, competing interest statement and/or author fees, if applicable.

**Submission Checklist:** Next, the author must check each of the items from the submission checklist. The checklist is mandatory and if author does not fulfill all the criteria will not be able to submit. Carefully selecting the most appropriate disciplines, classification system, and keywords will enhance the ability of others to find your articles. In this system, Authors index their own submissions, but this information can be checked over and changed by Editors at any time.
Effective Management of E-Resources in Research Libraries

SUBMISSION CHECKLIST

Indicate that this submission is ready to be considered by the journal by checking off the following (comments to the editor can be added below).

☐ The author has been seen by all the authors, who are satisfied with its form and content. The sequence of names of authors in the by-line is in the relative contribution to the argument, giving due credit to all scientists who made notable contribution to it.

☐ The submission has not been previously published, nor is it before another journal for consideration (or an explanation has been provided in Comments to the Editor).

☐ The submission file is in Microsoft Word format. The text is single-spaced, uses 12-point font, employs italics, rather than underlining (except with URL addresses), and all illustrations, figures, and tables are placed within the text at the appropriate points, rather than at the end.

☐ Where available, URLs for the references have been provided.

☐ The text adheres to the stylistic and bibliographic requirements outlined in the Author Guidelines, which is found in About the Journal.

Comments for Editor Finally, the author can add any comments, which will be visible to the editor. Move to the next step by clicking the Save and Continue button.

JOURNAL’S PRIVACY STATEMENT

The names and email addresses entered in this journal or website will be used exclusively for the stated purposes of this journal and will not be made available for any other purpose or to any other party.

COMMENTS FOR THE EDITOR

Enter text (optional): [ ]

Copyright notice: Author is advised to go through the ARTICLE CERTIFICATE and submit in original by post to Editor Address.

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☐ The authors agree to the terms of this Copyright Notice, which will apply to this submission if and when it is published by this journal (comments to the editor can be added below).

Step 2 Uploading the Submission

Submission Step Two allows you to upload the submission file, typically a word-processing document.

• Click Browse ( ) to open a Choose File window for locating the file on the hard drive of your computer.

• Locate the file you wish to submit and highlight it.

• Click Open on the Choose File window, which places the name of the file on this page.

• Click Upload on this page, which uploads the file from the computer to the journal’s website and renames it following the journal’s conventions.

• Once the submission is uploaded, click Save and continue.
Note: Make sure that File size should not be more than 2 MB. If, yes, please split as Table and Figures separately and add Table and figure in Step 3 as a supplementary file.

If there are multiple authors for the submission, their information can be added using the Add Author button. You can also re-order the list of authors, make one of the authors the principal contact with the editor, and delete any authors added in error.

Note: Next, enter the submission title and abstract.

The next section allows you to enter the name of any organization that may have supported your research.

**Step 3. Entering the Submission’s Metadata**

In the third step, all author’s detailed information to be filled by corresponding author.
Affiliation- Please mention the name of Institute/University/organization.
Bio-statement- Please mention the Designation and Division name/ other
Add Author 1 - on clicking to add author, you will be provided space to fill the information
Add Author 2 - If, needed
Add Author 3 - If, needed

Title and Abstract:

Step 4 Uploading of Supplementary File
This step is optional. If you have any supplementary files, such as research instruments, data sets, etc., you may add them here. These files are also indexed by the author, identifying their relation to the submission, as well as their ownership. Supplementary Files can be uploaded in any file format and will be made available to readers in their original format.
• Locate the file you wish to submit and highlight it.
• Click Open on the Choose File window, which places the name of the file on this page.
• Click Upload on this page, which uploads the file from the computer to the journal's web site and renames it following the journal's conventions.
• Once the submission is uploaded, click Save and Continue.

**Submission Step 5: Confirming the Submission**

This final step provides a summary of your submission.

Note: This final step provides a summary of your submission.

### 7.6 Active submission on Authors Screen:

**ACTIVE SUBMISSIONS**

Submission complete. Thank you for your interest in publishing with The Indian Journal of Animal Sciences.

ISBN: 007-0118
7.7 Finish Submission  As the author successfully completed the submission, an automated Email will be generated on authors Email address mentioning the ID no. of the submitted manuscript. This final step provides a summary of your submission.

7.6 Acknowledgement

An acknowledgement letter will immediately be issued, when an author finishes the submission and will get the ID No. allotted of the submitted manuscript (encircled).

Note: Author can directly open their page on clicking to URL mentioned

Note: Once an author has submitted their paper they cannot access it again to make changes until editor returns it to them for revision. They can track the progress of the paper from their Author Centre but they cannot view the paper or edit it while it is in the Editor Centers. Authors cannot see how many reviewers have been invited or how many reviewers have replied. They also cannot see when a paper shows overdue.

If you are the author or co-author on a paper, you will not be able to see it in your Editor Centre as the system prevents Editors from seeing their own work - this is to maintain the blind review process.

7.8 Track the submission's progress

To track the submission's progress through the review and editorial process, author has to log into the journal web site.

Click on the linked title to go to the submission record.
Status of Manuscript- Arrow showing that the manuscript is not assigned to Reviewers. Author has facility to view the current status, once he submitted an article to the Journal.

This page will list any of your submissions to the journal that are still in process (e.g., awaiting assignment to an editor, undergoing review, being edited) or incomplete (in which case you can return and finish the submission at any point). Each completed submission will fall into one of the following categories:

- **Awaiting Assignment**: the submission has been completed by you; you cannot now delete the submission from the system yourself. The Editor can now see the submission, and must assign an Editor or Section Editor to it.

- **Queued for Review**: The submission has been vetted and is now in the review process. You should receive notice shortly on the review decision.

- **Queued for Editing**: The submission has completed the review process and has been accepted for publication; it will now make its way through the system's copyediting, layout editing and proofreading processes.

### 7.8.1 Summary

From the resulting 'Summary' page, author will see links to Summary. The pages will provide details about the submission.

**Add a Supplementary file**: In case of requirement of any photographs/table/data or some any other relevant information by the Editor / Editorial Board as well as Reviewer, author has facility to add a supplementary file as required.
**Note:** If Original file is showing none that means some errors have been made by author. In such case request to author for resubmission and present manuscript should be archived.

**REFBACKS**

The RefBacks section displays any incoming links from external web sites such as blogs, news sites, or other articles that link directly to your articles. Each RefBack can be edited: it can be ignored, deleted, or published, in which case it appears publicly at the end of your published article on the web site.

**7.8.2 Reject and Archive**

**Rejection:** Your submission was not accepted for publication with this journal, either because it was not seen to be of high enough quality, or its subject did not match the journal. Reject and archive submission could be on the following circumstances as –

- If, there is missing of original File/manuscript in MS word version or Information given are unable to read.
- If, Year of study not given in the article. Data should not be more than 5 years old.
- If, article is not much interest of the reader of the journal.
- If, information given does not fall under the purview of the Journal.
- If, does not involved research work.
• If, article is of Thematic/Local/Regional importance.
• If, no any new information’s given and information are confirmatory in approach.

**Archive:** Archive means all the declined submissions, as well as any published submissions along with information on which issue they appear in. This will generate an email (based on an existing email template) to the author.

**Author’s screen, when editor initiates action on the article**

**Authors screen, when article is sent for review-**
7.9 Peer review

From this section Editor Decision can notify once you have submitted your revised submission file, view the reviewer comments (click on the cloud icon), and upload your revised submission file (if revisions were required).

Possible decisions include:

- **Accept**: Your submission has been accepted as is.

- **Revisions Required**: Your submission requires minor changes and will be accepted once those have been completed.

- **Resubmit for Review**: Your submission needs significant re-working. A new file must be submitted and another round of review will take place.

- **Reject**: Your submission was not accepted for publication with this journal, either because it was not seen to be of high enough quality, or its subject did not match the journal.
Modification: A letter may be issued to author for modification on clicking the marked point. Screen display below showing letter to be issued for modification.

The author will receive the following email

Find the editor comments (by clicking at encircled point),

Author modifies the article as per the reviewer’s and editorial comments and uploads the file. Editor’s screen will show the following changes when author uploads the file. If author does not upload the file, editor screen shows none (arrow).

When author uploaded the revised version the screen shows the author version.
7.10 Copyediting
The Copyeditor edits articles to improve grammar and clarity, ensures that author follows in-house style for text, table and reference presentation, and prepares a final edited copy for the production officer to prepare page proofs (or gally proofs) that will be in the published in the format of the journal. In the next section, author can follow the copyediting process. Author will receive an email to check the corrections made in copyedited manuscript.

- Step 1: The journal’s Copyeditor has made changes to the reviewed submission file. Author can download a revised copy (e.g., 1223-2346- ED.DOC).
Click on **In Editing** to work on the manuscript copyedited by the editor.

- Step 2: Author will review the Copyeditor's changes, and make any final changes of his own. Author then uploads the revised submission file. Be sure to use the email icon to notify the Copyeditor that you have submitted the file.

- Step 1: Editor downloads the ms, edits it and uploads by clicking **browse and upload** (arrow) at second step. The ms will appear at author copy edit (arrow)
The encircled area indicate the copyedit instructions.

**Uploading the checked version by author:**

As the step 1 process completed, the request and completed indication will changed on authors as well as editor screen.

- Step 3: The Copyeditor takes a last look at your changes before assigning the submission to an issue of the journal.

**7.11 Acceptance letter**

Author receives the following email.
7.12 Proofreading

The Proofreader carefully reads over the galleys in the formats in which the journal publishes (as does the author). The Proofreader (and the Author) records any typographic and formatting errors for the Layout Editor to fix.

Email received by Author for Proof correction

```
From: "ARUNA T. KUMAR" <arunakumar0@gmail.com>
Subject: [Submit] Proofreading Request (Author)

Your submission "Base line survey of Indian Journal of Animal Science" to The Indian Journal of Animal Sciences now needs to be proofread by following these steps:
1. Click on the Submission URL below.
2. Log into the journal and add PROOFING INSTRUCTIONS.
3. Click on VIEW PROOF in Layout and proof the galleys in the line or more formats used.
4. Enter corrections (typographical and format) in Proofreading Corrections.
5. Save and email corrections to Editor.
6. Send the COMPLETE email to the editor.
```

Author sends following email to Editor after completing proofreading

```
From: "ARUNA T. KUMAR" <arunakumar0@gmail.com>
Subject: [Submit] Proofreading Completed (Author)

Corrected PDF of Proof of the article "Base line survey of Indian Journal of Animal Science," for The Indian Journal of Animal Sciences, is in attached file. The proof being sent to you are final and ready for printing.

Mrs. Aruna T. Kumar
```

Information of published issue is sent to all authors.

SEARCH

- Search terms are case-insensitive
- Common words are ignored
- By default only articles containing all terms in the query are returned (i.e., AND is implied)
- Combine multiple words with OR to find articles containing either term; e.g., education OR research
- Use parentheses to create more complex queries; e.g., archive (journal OR conference) NOT theses
• Search for an exact phrase by putting it in quotes; e.g., "open access publishing"
• Exclude a word by prefixing it with - or NOT; e.g. online -politics or online NOT politics
• Use * in a term as a wildcard to match any sequence of characters; e.g., soci* morality would match documents containing "sociological" or "societal"
Annexure I

SCOPE AND CRITERIA FOR CONSIDERATION OF ARTICLE

*The Indian Journal of Agricultural Sciences*

*The Indian Journal of Agricultural Sciences* publishes papers concerned with the advancement of agriculture throughout the world. It publishes original scientific work related to strategic and applied studies in all aspects of agricultural science and exploited species, as well as reviews of scientific topics of current agricultural relevance.

Specific topics of interest include (but are not confined to): genetic resources, all aspects of crop improvement, crop production, crop protection, physiology, modeling of crop systems, the scientific underpinning of agronomy, engineering solutions, decision support systems, land use, environmental impacts of agriculture and forestry, impacts of climate change, rural biodiversity, experimental design and statistical analysis, the application of new analytical and study methods (including molecular studies) and agricultural economics.

The journal also publishes book reviews. Articles are accepted on the following broad disciplines

- Agric. Engineering & Technology
- Agric. Social & Economic Sci.
- Agronomy
- Biometry
- Biosciences
- Cytology
- Ecology
- Environmental Sciences
- Fertilization
- Forestry
- Genetics
- Horticulture
- Microbiology
- Pest
- Weed Control etc.
- Molecular Biology

*The Indian Journal of Animal Sciences*

Articles published in *The Indian Journal of Animal Sciences* encompass a broad range of research topics in animal health and production related to cattle, buffalo, sheep, goat, camel, equines, pig, rabbit, yak, mithun, poultry and fisheries. Studies involving wildlife species and laboratory animal species that address fundamental questions about their biology will also be considered for publication. **All manuscripts must present some new development and must be original, timely, significant and scientifically excellent.** Papers will be rejected if standards of care of, or procedures performed on animals are not up to those expected of humane veterinary scientists. At a minimum, standards must meet the International Guiding Principles for Biomedical Research involving Animals, as issued by the Council for International Organizations of Medical
Effective Management of E-Resources in Research Libraries

Sciences. (C.I.O.M.S., c/o WHO, CH 1211 Geneva 27, Switzerland). Articles reporting new animal disease must follow GOI directive as given in detail in Guidelines to Authors. The readership of the journal is global. The Indian Journal of Animal Sciences is published both online and in print mode. The Indian Journal of Animal Sciences includes articles on following disciplines:

I. Animal Health

1. Epidemiology: Research findings and methodological developments in the field of epidemiological research; epidemiology of both communicable and non-communicable diseases.

2. Immunology: Broad range of experimental studies in molecular and cellular immunology: vaccine — molecular biology, synthetic peptides, recombinant antigens, vectors, new immunogens, adjuvants, immunity, immunology of protection, fertility, academic research, developmental applications, field trials, epidemiology, efficacy, cost/benefit (biology of cells and mechanisms of the immune system, immunochemistry, immunodeficiency’s, immunodiagnosis, immunogenetics, immunopathology, immunology of infectious disease and tumours, immunoprophylaxis to infectious disease including vaccine development and delivery, immunological aspects of pregnancy including passive immunity, reagent development including development of antibodies to new differentiation antigens and cytokines and gene isolation, interaction of the immune system with other tissues including autoimmunity, transplantation immunology.

3. Veterinary microbiology: Veterinary Microbiology is concerned with microbial (bacterial, fungal, viral) diseases of domesticated animals (livestock and poultry). In addition, Microbial diseases of wild animals living in captivity, or as members of the feral fauna will also be considered if the infections are of interest because of their interrelation with humans (zoonoses) and/or domestic animals, or for comparative or other scientific reasons. Studies of antimicrobial resistance are also included.

Original research papers of high quality and novelty on aspects of control, diagnosis, epidemiology, host response, immunology, molecular biology, pathogenesis, prevention, and treatment of microbial diseases of animals are published. Drug trial papers are accepted if they have general application or significance. Papers on the identification of microorganisms are also accepted, but detailed taxonomic studies do not fall within the scope of the journal. Case reports are usually not accepted, unless these have general application or contain novel aspects. Papers of geographically limited interest, which repeat what had been established elsewhere, will not be accepted.

4. Parasitology: Original papers, from all geographical areas and covering all parasitological disciplines, including structure, immunology, cell biology, biochemistry, molecular biology, and systematic are considered. Reviews on recent
developments may be submitted. Papers of the highest quality dealing with all aspects of disease prevention, pathology, treatment, epidemiology, and control of parasites in all domesticated animals fall within the scope of the journal.

Parasitological studies on laboratory animals are considered only if they provide a reasonably close model of a disease of domestic animals. Papers relating to wildlife species where they may act as disease reservoirs to domestic animals, or as a zoonotic reservoir, are also considered. Papers dealing only with the taxonomy of parasites are not accepted.

5. **Veterinary public health**: Articles included are on — infection prevention and control, microbiology, infectious diseases, public health and the application of healthcare epidemiology to the evaluation of health outcomes. The information must advance the scientific knowledge of the sources, transmission, prevention and control of zoonoses. Articles that incorporate recent data into new methods, applications, or approaches (e.g. statistical modeling) which enhance public health are also considered.

6. **Medicine**: Epidemiology of domestic and wild animals, costs of epidemic and endemic diseases of animals, the latest methods in veterinary epidemiology, disease control or eradication, relationships between veterinary medicine and animal production, and development of new techniques in diagnosing, recording, evaluating and controlling diseases in animal populations.

7. **Pharmacology and toxicology**: Basic and clinical aspects of veterinary pharmacology and toxicology; toxic effects observed at relevant exposures, which have direct impact on safety evaluation and risk assessment — articles on these aspects are included in the journal.

8. **Surgery and radiology**: Articles having up-to-date coverage of surgical and anesthetic management of animals, and addressing significant problems in veterinary surgery with relevant observations are considered.

9. **Pathology**: Original articles presenting findings on all aspects of general, anatomic and molecular pathology, coverage of the most recent developments across the entire field of pathology and reviews focusing on recent progress in pathology, are included.

10. **Avian diseases**: Articles on etiology, pathogenesis, diagnosis, and control relevant to avian diseases are considered.

11. **Reproduction**: Original research and timely reviews on topics relating to reproduction and fertility in animals are included — both fundamental research and applied studies, including management practices that increase our understanding of the biology and manipulation of reproduction; animal physiology and biochemistry of reproduction; animal reproductive biology and biotechnology, including basic
and applied studies in cryobiology of gametes and embryos, conservation biology, and assisted reproduction of domestic, wild, avian species and captive and endangered species including zoo animals.

12. **Biochemistry & biotechnology:** Articles of original research in the fields of biochemistry and biotechnology and papers presenting information of a multidisciplinary nature are particularly welcome.

13. **Anatomy and histology:** Publishes original papers, invited review articles and book reviews with main focus on understanding development, evolution and function through a broad range of anatomical approaches. Articles on bioinformatics and other topics clarifying functional and anatomical understanding will also be considered. Priority will be given to experimental studies, to contributions based on molecular and cell biology, and on the application of modern functional imaging techniques. Studies that are essentially descriptive anatomy will only be published if the Editor considers that these are of functional significance. Also include original papers covering a link between anatomy and molecular biology, cell biology, reproductive biology, immunobiology, developmental biology, neurobiology, embryology as well as neuroanatomy, neuroimmunology, clinical anatomy, comparative anatomy, modern imaging techniques

**II. Animal Production**

1. **Genetics and Molecular tools:** Areas covered in the journal are genetic resources; genetics and genomics, immunogenetics, molecular genetics and functional genomics of economically important and domesticated animals; evolutionary and comparative genomics, including phylogenomics; study of variability at gene and protein levels, mapping of genes, traits and QTLs, associations between genes and traits, genetic diversity, and characterization of gene expression and control; animal genetic resources; computational biology, bioinformatics and biostatistics, complex gene studies, population genomics, association studies, structural variation, and gene-environment interactions; genomic approaches to understanding the mechanism of disease pathogenesis and its relationship to genetic factors; medical genomics, application of genomic techniques in model organisms.

2. **Breeding:** Articles are included on — crossbreeding, its impact on economic traits of animals; progress in animal production and quantitative genetics.

3. **Nutrition:** Areas covered in the journal are — nutritive value of feeds (e.g., assessment, improvement); methods of conserving and processing feeds that affect their nutritional value; rumen manipulation; agronomic and climatic factors influencing the nutritive value of feeds; utilization of feeds and the improvement of such; metabolic, production, reproduction and health responses to dietary inputs (e.g., feeds, feed additives, specific feed components, mycotoxins); mathematical
models relating directly to animal-feed interactions; analytical and experimental methods for feed evaluation; pasture, plant-animal relationship.

- **Behavior, housing and climatology**: Articles are included on — behavior of farm, zoo and laboratory animals in relation to animal management and welfare; studies of the behavior of wild animals when these studies are relevant from an applied perspective, for example in relation to wildlife management, pest management or nature conservation; aspects of shelter design and animal housing that affect health and physiology of animal; effect of climate change on breeding, feeding and health in animals and its mitigation.

4. **Livestock economics, marketing and extension**: Livestock economics and related disciplines such as statistics, marketing, and their application to issues in the livestock, food, and related industries; rural communities, and the environment; new extension issues are considered for publication.

5. **Statistics**: Articles on development and use of statistical methods in the animal sciences and fisheries are considered for inclusion in journals.

6. **Indigenous technical knowledge**: Articles related to validation of indigenous knowledge on any field of animal sciences; organic farming is included in the journal.

### III. Animal Products

- **Animal products**: Methods to improve production, quality and shelf life of dairy, meat and egg products, and wool and hide are in the scope of the journal.

### IV. Fisheries

- Articles on fisheries in salt, brackish and freshwater systems, and all aspects of associated ecology, environmental aspects of fisheries, and economics, are considered. Both theoretical and practical papers are acceptable, including laboratory and field experimental studies relevant to fisheries. Papers on the conservation of exploitable living resources and review articles are also published. The approach of the journal is multidisciplinary.
GUIDELINES TO AUTHOR

The Indian Journal of Agricultural Sciences

1.1 The Indian Journal of Agricultural Sciences is published every month.

1.2. MANUSCRIPT SUBMISSION, Article (in MS word) along with tables, figs. (Preferably single file) should be uploaded on-line to The Indian Journal of Agricultural Sciences at www.icar.org.in (Publication).

2.1 PAPERS ON ORIGINAL RESEARCH COMPLETED, not exceeding 3,500 words, should be exclusive for the journal. They should present a connected picture of the investigation and should not be split into parts.

2.2 SHORT RESEARCH NOTES not more than 1,500 words, which deals with (a) research results which are complete but do not warrant comprehensive treatment, and (b) descriptions of new material or improved techniques, with supporting data. Such notes require no headed sections. In short notes headings are also not given. Summary (not more than 80-100 words) is to be provided at the end of the text.

2.3 CRITICAL RESEARCH REVIEW pointing out lacunae in research and suggesting possible lines of future work.

2.4 Contributors are requested to ensure that the research papers or notes submitted for publications have a direct bearing on agricultural production or open up new grounds for productive research. Basic types of papers and notes which relate to investigations in a narrow specialized branch of a discipline may not form an appropriate material for this journal. Author should check that articles have all the following sections and appear in that order of:

Title, Name(s) of author(s),Complete postal address(es) of affiliations (place where work was conducted)
Present address(es) of author(s) if applicable; Complete correspondence address including e-mail address to which the proofs should be sent (these are given as footnote on first page).

Abstract, Keywords (indexing terms), normally 3 – 6 items.
Introduction (without heading)
Materials and methods
Results and discussion
Conclusion (without heading)
Acknowledgements
References
Tables
Figure captions
Figures (separate file(s))

Note: Titles and subtitles should not be run within the text. They should be typed on a separate line, without indentation. Use lower-case letter type.

The Journal reserves the privilege of returning to the author for revision of accepted manuscripts and illustrations which are not in the proper form given in this guide.

3.1 The manuscript of the paper starts with the title. It should be short, specific and informative. It should be phrased to identify the content of the article must include the nature of the study, and technical approach, which is essential for key-word indexing and information retrieval. Title should be as brief as possible, and include the species involved in the research when applicable. Abbreviations are not permitted in the title.

3.2 In addition, a SHORT TITLE not exceeding 50 letters should be provided separately for running headlines.

3.3 The BYLINE should contain, in addition to the names and initials of the authors, the place where research was conducted. Naming an author on a paper implies that the person named is aware of the research reported and agrees with and accepts responsibility for any results or conclusions reported. The address of the institution should include the name of the institution, city, Pin code and country. Present address should be given as a footnote. When a paper has several authors from different institutions, key the author to the address with superscript Arabic numerals and present the additional addresses as footnotes at the bottom of the page, e.g. Present address: Give designation, present address of all the authors and email of corresponding author. 1Designation, Division of... (1email of first author); 2Designation, Division of...( if second author is from different division); 3Designation, Division of...(if the author is from different place).

4. The ABSTRACT, written in complete sentences, should not have more than 250 words. It should contain a very brief account of the materials, methods, results, discussion and conclusion, so that the reader need not refer to the whole article except for details. It should not have references to literature, illustrations and tables. The abstract should summarize pertinent results in a brief but understandable form. The abstract should start with a clear statement of the objectives of the experiment and must conclude with one or two sentences that highlight important conclusions. "An abstract is defined as an abbreviated accurate representation of the contents of a document, preferably prepared by its author(s) for publication with it. Such abstracts are also useful in access [abstracting] publications and machine-readable databases".
4.1 Key-words: At the end of the abstract, list up to six key words that best describe the nature of the research. Because major words in the title are not used in the subject index, appropriate words from the title (or synonyms) should be listed as key words.

**Major headings** are MATERIALS AND METHODS, RESULTS AND DISCUSSION, and REFERENCES

Major headings of review papers or papers from symposia may deviate from this standard format; however, all papers must contain an abstract, key words, and an introduction. Abbreviations should be avoided in headings.

5.1 The INTRODUCTORY part should be brief and limited to the statement of the importance of the study, problem or the aim of the experiment. And may briefly justify the research and specify the hypotheses to be tested. The review of literature should be pertinent to the problem. Objective of the study should be discussed in view of latest references. Authorities for the Latin binomial of every organism are not used in the title or summary, and only on the first mention in the main body of the text. Gene names and loci should be italic, and proteins should be roman. Virus nomenclature (and acronyms) should follow the guidelines of the International Committee on the Taxonomy of Viruses (ICTV). The current report is: van Regenmortel MHV, Fauquet CM, Bishop DHL (Eds) (2001) Virus Taxonomy: Seventh Report of the International Committee on Taxonomy Viruses. San Diego: Academic Press. Authors are also advised to check the ICTV website for the latest information. Biological nomenclature, as laid down in the International Code of Botanical Nomenclature, the International Code of Nomenclature of Bacteria, and the International Code of Zoological Nomenclature should be followed. [www.sp2000.org](http://www.sp2000.org) and [www.fishbase.org](http://www.fishbase.org) websites may be checked for nomenclature. Chemical nomenclature should follow the International Union of Pure and Applied Chemistry (IUPAC) definitive rules for nomenclature. No trade name should be used and Industrial products should be referred to by their chemical names (give ingredients in parentheses) at first mention. In the absence of a common name, use the full name or a defined abbreviation, in preference to a trade name.

5.2 Relevant details should be given of the crop, MATERIALS AND METHODS, including experimental design year of study (the study should not be more than 5 years old) and the techniques employed. Where the methods are well known, the citation of a standard work is sufficient. All modifications of procedures must be explained. Experimental materials and statistical models should be described clearly and fully. Calculations and the validity of deductions made from them should be checked and validated by a statistician. When possible, results of similar experiments should be pooled statistically. Do not report a number of similar experiments separately. Units of measurement, symbols and standard abbreviations should conform to those recommended by the International Union of Biochemistry (IUB) and the International Union of Pure and Applied Chemistry (IUPAC). Metric measurements are preferred, and dosages should be expressed entirely in metric units (SI units). In exceptional circumstances, others may be used, provided they are consistent. Give the meaning of all symbols immediately after the equation in which they are first used. Equations should be numbered serially at the right-hand side in parentheses.
In general only equations explicitly referred to in the text need be numbered. The use of fractional powers instead of root signs is recommended. Powers of e are often more conveniently denoted by exp. In chemical formulae, valence of ions should be given as, e.g. Ca\(^{2+}\), not as Ca\(^{++}\). Isotope numbers should precede the symbols, e.g. \(^{18}\)O. The repeated writing of chemical formulae in the text is to be avoided where reasonably possible; instead, the name of the compound should be given in full. Exceptions may be made in case of a very long name occurring very frequently or in the case of a compound being described as the end product of a gravimetric determination (e.g. phosphate as \(\text{P}_2\text{O}_5\)).

5.3 The RESULTS AND DISCUSSION should preferably be combined to avoid repetition.

Results should be presented in tabular form and graphs when feasible but not both. The color figures and plates, are printed when information would be lost if reproduced in black and white. Mean result with the relevant standard errors should be presented rather than detailed data. The data should be so arranged that the tables would fit in the normal layout of the page. Self-explanatory tables should be typed on separate sheets and carry appropriate titles. The tabular matter should not exceed 20% of the text. Any abbreviation used in a table must be defined in that table. Paginate the tables in series with the text. All tables should be cited in the text. If an explanation is necessary, use an abbreviation in the body of the table (e.g. ND) and explain clearly in footnotes what the abbreviation means. References to footnotes in a table are specified by superscript numbers, independently for each table. Superscript letters are used to designate statistical significance. Use a lower case P to indicate probability values (i.e. \(p<0.05\)). In general, use numerals. When two numbers appear adjacent to each other, spell out the first. In a series using some numbers less than 10 and some more than 10 use numerals for. Do not begin a sentence with a numeral. Spell it out or rearrange the sentence. Abbreviate the terms hour (hr), minute (min.) and second (sec.) when used with a number in the text but spell them out when they are used alone. Do not use a hyphen to indicate inclusiveness (e.g. use 12 to 14 mg or wk 3 and 4 not 12-14 mg or wk 3-4). Use Arabic numerals with abbreviated units of measure: 2 g, 5 d, \$4.00, 3% and numerical designations in the text: exp 1, group 3, etc.

Author is required to submit high-resolution images, preferably with the initial submission but no later than revision stage. Electronic images (figures and schemes) must be at a minimum resolution of 600 d.p.i. for line drawings (black and white) and 300 d.p.i. for color or grayscale. Color figures must be supplied in CMYK not RGB colors. Please ensure that the prepared electronic image files print at a legible size (with lettering of at least 2 mm).

A number of different file formats are acceptable, including: PowerPoint (.ppt), Tagged Image File Format (.tif), Encapsulated PostScript (.eps), Joint Photographic Experts Group (.jpg), Graphics Interchange Format (.gif), Adobe Illustrator (.ai) (please save your files in Illustrator’s EPS format), Portable Network Graphics (.png), Microsoft Word (.doc), Rich Text Format (.rtf), and Excel (.xls) but not Portable Document Format (PDF).

Please ensure that the figure is clearly labeled with its figure number.
Original artwork: If you are unable to submit electronic artwork, please provide two sets of all figures as high-quality glossy prints at the size that they are to appear in print. One set should be unlabelled. The text should explain or elaborate on the tabular data, but data should not be repeated extensively within the text. Sufficient data, all with some index of variation attached, should be presented to allow the reader to interpret the results of the experiment. The discussion should interpret the results clearly and concisely in terms of biological mechanisms and should integrate literature results with the research findings to provide the reader with a broad base on which to accept or reject the hypotheses tested.

Results and references to tables and figures already described in the RESULTS section should not be repeated in the DISCUSSION section.

5.4 The DISCUSSION should relate to the limitations or advantage of the author’s experiments in comparison with the work of others. **Authors must obtain permission to reproduce any copyright material, and include an acknowledgement of the source in their Article.** They should be aware that the unreferenced use of the published and unpublished ideas, writing or illustrations of others, or submission of a complete paper under a new authorship in a different or the same language, is plagiarism.

The Conclusion section should not be of more than one paragraph after the discussion and explain in general terms the implications of findings of this research on crop sciences. Abbreviations, acronyms, or citations should not be used here. Though some speculation is permitted, this section should also caution the reader against over extrapolation of results. For manuscripts with direct applications, this section will consist of an interpretive summary. If results have no implications, this should also be stated.

A recent issue of the journal should be consulted for the methods of citation of References in the text as well as at the end of the article. Reference citations in the text are typed as follows: Black (1971) or (Black 1971); Dickerson et al. (1974) or (Dickerson et al. 1974); Smith and Jones (1977) or (Smith and Jones 1977). Groups of references cited in a sentence in the text must be listed in chronological order as in the previous sentence. REFERENCES lists should be typed in alphabetical order. The reference list should be first sorted alphabetically by author(s) and secondly chronologically.

**For journal articles**
Author(s). Year. Title. Journal title (full name and in italics) Volume number (bold): Page-page.<to be ended by period>


**For whole books**
Author(s), Year. Title. Number of pages, Edition, if any, (Ed.). Publisher address.

For chapters from books
Author(s), Year. Title. book title, Page-page.editors (editors), Publisher, address.

For Symposium
Authors should ensure that all references in the text appear at the end of the paper and vice- versa, and those names and dates at the two places correspond.

7. All articles are sent to referees for SCRUTINY and authors should meet criticism by improving the article.

8. Papers should be composed in MS Word, and double-spaced throughout (including references and tables). Article (including illustrations) should be sent after a careful check-up of typographical errors.

9. Authors are requested to consult The Council of Biology Editors Style Manual. 7th edn. American Institute of Biological Sciences, Washington DC.

10. Proof-correction should be marked in PDF file only.

All queries marked in the article should be answered. Proofs are supplied for a check-up of the correctness of type-setting and facts.

Excessive alteration may be charged to the authors. The proofs should be returned within 3 days.

11. Each contributor will receive one copy of the Journal free.

The Indian Journal of Animal Sciences

1. The Indian Journal of Animal Sciences is published every month.

1.2 MANUSCRIPT SUBMISSION, Article (in MS word) along with tables, figs (preferably single file) should be uploaded on-line to The Indian Journal of Animal Sciences at www.icar.org.in (Publication).

2.1 PAPERS ON ORIGINAL RESEARCH COMPLETED, not exceeding 3,500 words (approximately 10-12 pages), should be exclusive for the journal. They should present a connected picture of the investigation and should not be split into parts.
2.2 SHORT RESEARCH NOTES not more than 1,500 words (about 4-5 pages), which deals with (a) research results which are complete but do not warrant comprehensive treatment, and (b) descriptions of new material or improved techniques, with supporting data. Such notes require no headed sections. In short notes headings are also not given. Summary (not more than 80-100 words) is to be provided at the end of the text.

2.3 CRITICAL RESEARCH REVIEW pointing out lacunae in research and suggesting possible lines of future work.

2.4 Contributors are requested to ensure that the research papers or notes submitted for publications have a direct bearing on animal production or open up new grounds for productive research. Basic types of papers and notes which relate to investigations in a narrow specialized branch of a discipline may not form an appropriate material for this journal.

3. Author should check that articles has all the following sections and appear in that order:
   Title
   Name(s) of author(s)
   Complete postal address (es) of affiliations (place where work was conducted)
   Present address (es) of author(s) if applicable; Complete correspondence address including e-mail address to which the proofs should be sent (these are given as footnote on first page).

Abstract
Keywords (indexing terms), normally 3 – 6 items.
Introduction (without heading)
Material and methods
Results and discussion
Conclusion (without heading)
Acknowledgements
References
Tables
Figure captions
Figures (separate file(s))

Note: Titles and subtitles should not be run within the text. They should be typed on a separate line, without indentation. Use lower-case letter type.

The Council reserves the privilege of returning to the author for revision of accepted manuscripts and illustrations which are not in the proper form given in this guide.

3.1 The manuscript of the paper starts with the title. It should be short, specific and informative. It should be phrased to identify the content of the article must include the nature of the study, and technical approach, which is essential for key-word indexing
and information retrieval. Title should be as brief as possible, and include the species involved in the research when applicable. Abbreviations are not permitted in the title.

3.2 In addition, a SHORT TITLE not exceeding 50 letters should be provided separately for running headlines.

3.3 The BYLINE should contain, in addition to the names and initials of the authors, the place where research was conducted. Naming an author on a paper implies that the person named is aware of the research reported and agrees with and accepts responsibility for any results or conclusions reported. The address of the institution should include the name of the institution, city, country and PIN code. Present address should be given as a footnote. When a paper has several authors from different institutions, key the author to the address with superscript Arabic numerals and present the additional addresses as footnotes at the bottom of the page, e.g. Present address: Give designation, present address of all the authors and email of corresponding author.

1Designation, Division of... (email of first author); 2Designation, Division of... (if second author is from different division). 3 Designations, Division of... (if the author is from different place).

4. The ABSTRACT, written in complete sentences, should not have more than 250 words. It should contain a very brief account of the materials, methods, results, discussion and conclusion, so that the reader need not refer to the whole article except for details. It should not have references to literature, illustrations and tables. The abstract should summarize pertinent results in a brief but understandable form. The abstract should start with a clear statement of the objectives of the experiment and must conclude with one or two sentences that highlight important conclusions. "An abstract is defined as an abbreviated accurate representation of the contents of a document, preferably prepared by its author(s) for publication with it. Such abstracts are also useful in access [abstracting] publications and machine-readable databases".

4.1 Key-words: At the end of the abstract, list up to six key words that best describe the nature of the research. Because major words in the title are not used in the subject index, appropriate words from the title (or synonyms) should be listed as key words.

5. Major headings are MATERIALS AND METHODS, RESULTS AND DISCUSSION, and REFERENCES.

Major headings of review papers or papers from symposia may deviate from this standard format; however, all papers must contain an abstract, key words, and an introduction. Abbreviations should be avoided in headings.

5.1 The INTRODUCTORY part should be brief and limited to the statement of the importance of the study, problem or the aim of the experiment. And may briefly justify the research and specify the hypotheses to be tested. The review of literature should be pertinent to the problem. Objective of the study should be discussed in view of latest references. Authorities for the Latin binomial of every
organism are not used in the title or summary, and only on the first mention in the main body of the text. Gene names and loci should be italic, and proteins should be roman. Virus nomenclature (and acronyms) should follow the guidelines of the International Committee on the Taxonomy of Viruses (ICTV). The current report is: van Regenmortel MHV, Fauquet CM, Bishop DHL (Eds) (2001) Virus Taxonomy: Seventh Report of the International Committee on Taxonomy Viruses. San Diego: Academic Press. Authors are also advised to check the ICTV website for the latest information. Biological nomenclature, as laid down in the International Code of Botanical Nomenclature, the International Code of Nomenclature of Bacteria, and the International Code of Zoological Nomenclature should be followed. www.sp2000.org and www.fishbase.org websites may be checked for nomenclature. Chemical nomenclature should follow the International Union of Pure and Applied Chemistry (IUPAC) definitive rules for nomenclature. No trade name should be used and Industrial products should be referred to by their chemical names (give ingredients in parentheses) at first mention. In the absence of a common name, use the full name or a defined abbreviation, in preference to a trade name. In case of anatomy and surgery articles please follow Nomina Anatomica, Nomina Histologica, Nomina Embryologica, Nomina Anatomica Veterinaria, and Nomina Anatomica cvium for nomenclature.

5.2 Relevant details should be given of the animal, MATERIALS AND METHODS, including experimental design and the techniques employed. Where the methods are well known, the citation of a standard work is sufficient. All modifications of procedures must be explained. Experimental materials and statistical models should be described clearly and fully. Calculations and the validity of deductions made from them should be checked and validated by a statistician. When possible, results of similar experiments should be pooled statistically. Do not report a number of similar experiments separately. Units of measurement, symbols and standard abbreviations should conform to those recommended by the International Union of Biochemistry (IUB) and the International Union of Pure and Applied Chemistry (IUPAC). Metric measurements are preferred, and dosages should be expressed entirely in metric units (SI units). In exceptional circumstances, others may be used, provided they are consistent. Give the meaning of all symbols immediately after the equation in which they are first used. Equations should be numbered serially at the right-hand side in parentheses. In general only equations explicitly referred to in the text need be numbered. The use of fractional powers instead of root signs is recommended. Powers of e are often more conveniently denoted by exp. In chemical formulae, valence of ions should be given as, e.g. Ca$^{2+}$, not as Ca$^{++}$. Isotope numbers should precede the symbols, e.g. $^{18}$O. The repeated writing of chemical formulae in the text is to be avoided where reasonably possible; instead, the name of the compound should be given in full. Exceptions may be made in case of a very long name occurring very frequently or in the case of a compound being described as the end product of a gravimetric determination (e.g. phosphate as P$_2$O$_5$).

Authors must certify that animals were cared for under guidelines comparable to those laid down by the Institutional Animal Ethics Committee.

5.3 The RESULTS AND DISCUSSION should preferably be combined to avoid repetition.

Results should be presented in tabular form and graphs when feasible but not both. The color figures and plates are printed when information would be lost if reproduced in
black and white. Mean result with the relevant standard errors should be presented rather than detailed data. The data should be so arranged that the tables would fit in the normal layout of the page. Self-explanatory tables should be typed on separate sheets and carry appropriate titles. The tabular matter should not exceed 20% of the text. Any abbreviation used in a table must be defined in that table. Paginate the tables in series with the text. All tables should be cited in the text. If an explanation is necessary, use an abbreviation in the body of the table (e.g. ND) and explain clearly in footnotes what the abbreviation means. References to footnotes in a table are specified by superscript numbers, independently for each table. Superscript letters are used to designate statistical significance. Use a lower case p to indicate probability values (i.e. p<0.05). In general, use numerals. When two numbers appear adjacent to each other, spell out the first (i.e. ten 2-day old chicks rather than 10 2-d old chicks). In a series using some numbers less than 10 and some more than 10 use numerals for all (i.e. 2 Holsteins, 6 Charolais and 15 Friesians). Do not begin a sentence with a numeral. Spell it out or rearrange the sentence.Abbreviate the terms hour (h), minute (min) and second (sec) when used with a number in the text but spell them out when they are used alone. Do not use a hyphen to indicate inclusiveness (e.g. use 12 to 14 mg or wk 3 and 4 not 12-14 mg or wk 3-4). Use Arabic numerals with abbreviated units of measure: 2 g, 5 d, $4.00, 3% and numerical designations in the text: exp 1, group 3, etc.

Author is required to submit high-resolution images, preferably with the initial submission but no later than revision stage. Electronic images (figures and schemes) must be at a minimum resolution of 600 d.p.i. for line drawings (black and white) and 300 d.p.i. for color or grayscale. Color figures must be supplied in CMYK not RGB colors. Please ensure that the prepared electronic image files print at a legible size (with lettering of at least 2 mm).

A number of different file formats are acceptable, including: PowerPoint (.ppt), Tagged Image File Format (.tif), Encapsulated PostScript (.eps), Joint Photographic Experts Group (.jpg), Graphics Interchange Format (.gif), Adobe Illustrator (.ai) (please save your files in Illustrator’s EPS format), Portable Network Graphics (.png), Microsoft Word (.doc), Rich Text Format (.rtf), and Excel (.xls) but not Portable Document Format (PDF).

Please ensure that the figure is clearly labeled with its figure number.

Original artwork: If you are unable to submit electronic artwork, please provide two sets of all figures as high-quality glossy prints at the size that they are to appear in print. One set should be unlabelled. The text should explain or elaborate on the tabular data, but data should not be repeated extensively within the text. Sufficient data, all with some index of variation attached, should be presented to allow the reader to interpret the results of the experiment. The discussion should interpret the results clearly and concisely in terms of biological mechanisms and should integrate literature results with the research findings to provide the reader with a broad base on which to accept or reject the hypotheses tested. Results and references to tables and figures already described in the RESULTS section should not be repeated in the DISCUSSION section.
5.4 The DISCUSSION should relate to the limitations or advantage of the author's experiments in comparison with the work of others. Authors must obtain permission to reproduce any copyright material, and include an acknowledgement of the source in their Article. They should be aware that the unreferenced use of the published and unpublished ideas, writing or illustrations of others, or submission of a complete paper under a new authorship in a different or the same language, is plagiarism.

The Conclusion section should not be of more than one paragraph after the discussion and explain in general terms the implications of findings of this research on animal husbandry. Abbreviations, acronyms, or citations should not be used here. Though some speculation is permitted, this section should also caution the reader against over extrapolation of results. For manuscripts with direct applications, this section will consist of an interpretive summary. If results have no implications, this should also be stated.

5.5 A recent issue of the journal should be consulted for the methods of citation of References in the text as well as at the end of the article. Reference citations in the text are typed as follows: Black (1971) or (Black 1971); Dickerson et al. (1974) or (Dickerson et al. 1974); Smith and Jones (1977) or (Smith and Jones 1977). Groups of references cited in a sentence in the text must be listed in chronological order as in the previous sentence. REFERENCES lists should be typed in alphabetical order. The reference list should be first sorted alphabetically by author(s) and secondly chronologically.

For journal articles
Author(s). year. Title. Journal title (full name and in italics) volume number (bold): page-page.<to be ended by period>


For whole books
Author(s), year. Title .(Ed.).Edition if any, Number of pages. Publisher, address.

For chapters from books
Author(s), year. Title. Book title, editors (editors), Publisher, address. Page-page.

For Symposium
Authors should ensure that all references in the text appear at the end of the paper and vice-versa, and those names and dates at the two places correspond.
6. All articles are sent to referees for SCRUTINY and authors should meet criticism by improving the article.

7. Papers should be composed in MS word, and double spaced throughout (including references and tables). Article (including illustrations) should be sent after a careful check-up of typographical errors.

8. Authors are requested to consult The Council of Biology Editors Style Manual. 7th edn. American Institute of Biological Sciences, Washington DC.

9. Proof-correction should be marked in the margin. All queries marked in the article should be answered. Proofs are supplied for a check-up of the correctness of type-setting and facts. Excessive alteration may be charged to the authors. The proofs should be returned within 3 days.

10. Each contributor will receive one copy of the Journal free.
Editor guidelines for
Online article submission

Directorate of Information and Publications of Agriculture
KRISHI ANUSANDHAN BHAVAN-I
Indian Council of Agricultural Research (ICAR)
Pusa New Delhi 110 012
1. About the Journal
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Annexure I. Scope and criteria for consideration of article
Annexure II. Guidelines to author
Annexure III. Guidelines to reviewers
EDITOR GUIDE

The editor of peer-reviewed ICAR journals decides the content material of the journal in consultation with the editorial board and reviewers. Importance of work to researchers and readers decides the editor’s decisions. Policies of the journal, copyright infringement and plagiarism are other factors that bind the editor. The editor evaluates manuscripts for knowledge content keeping aside any bias towards the authors.

The editorial staff and editor should not divulge any information about a submitted manuscript to anyone other than the corresponding author, reviewers and editorial board. An editor should not use any material from the submitted manuscript in his own research or article without obtaining written permission of the author. The comment of reviewer must be kept confidential and not used for personal advantage. Editor if feels that he/she may not be able to remain unbiased with regard to a manuscript should recues him and take help from co-editor/chief editor/editorial board. Any reported act of immoral publishing actions must be looked into, even if reported after years of publication.

Editor decides in consultation with the Editorial Board about the following features-
1. About the Journal
2. Scope and criteria for consideration of article in the Journal.
3. Guidelines to author
4. The reviewing system
These three features pertaining to The Indian Journal of Agricultural Sciences/ The Indian Journal of Animal Sciences and on-line article processing system have been discussed here.

1. About the Journal

The Indian Journal of Agricultural Sciences
This journal is devoted to experimental agriculture and abstracted by all the major abstracting services. It includes articles on crop science, plant breeding and genetics, cytology, agronomy, soil science, horticulture, water use, microbiology, plant diseases and pest, agricultural engineering, agricultural economics and agricultural statistics with emphasis on original articles, from India and countries having similar agricultural conditions.
The Indian Journal of Animal Sciences
This journal caters to a wide clientele comprising veterinarians, researchers and students. Articles are included on animal breeding and genetics, immunology, biotechnology, epidemiology, medicine and pharmacology, anatomy and histology, surgery, pathology, physiology, nutrition, milk, meat and other animal products, housing and fisheries from India and internationally. This journal is abstracted by all the major abstracting services.

2. Scope and Criteria for consideration
The details of type of articles included in the journal or the coverage area of the journal are given in scope and criteria for consideration (Annexure I).

3. Guidelines to Authors
Author should consult Guidelines to authors (Annexure II) before submitting the article to the journal. It gives information on in-house style of text, table, figure, reference presentation in the Journal.

4. The reviewing system
The number of scientific articles published each year continues to grow, hence the peer-review process, together with the merit of the editorial board, is cited as the primary influence on a journal’s reputation, impact factor, and standing in the field. Reviewers do this difficult job without honorarium as they are good citizens of scientific community. The ICAR Journals relies on expert and objective review by knowledgeable researchers to ensure the quality of the papers it publishes. The guidelines to reviewers are given in Annexure III.

Comment sheet
The comment sheet has provision for general as well as specific comments on the paper.
5. WORK PROCESS-Editor

Manuscript (ms) is submitted by the author → Suitability of article is checked first by Editor

Suitable article is sent to 2 referees → The article is rejected, If not found suitable

Referees comments and MS received by EEU

Referees and editorial comments and MS sent to author → Revised MS submitted by author

Editor may accept for final editing or if feels reply to reviewer’s comments are not satisfactory, can send to reviewer again

Editing of MS by editor → Editor may send to author again for final editing or if satisfied with MS can send to production for layout and proofing

Proofs (I, II) received by EEU → Edited MS & illustrations sent to production unit for processing

Proof finalized for printing and print order sent to Production Unit by EEU

Step-1.1 Article rejection by Editor/Editorial Board at First step of submission

Author

MS submitted

Acknowledgement Letter issued automatically

Reviewed by Editor/Editorial Board

If, found not suitable → Rejected

Print version Received

Soft copy of Issue ready for open Access
Step-1.2  Work process-In general

Author

MS submitted

Reviewed by Editor/Editonal Board

Found suitable, sent to two Referee's

Referee One

Comments Received
+Ve

Decision by Editor

If satisfied with Referee one, sent for modification

Revised copies received, if satisfied, send it to Layout editor

1st Proof received, send to Editor

Referee Two

Comments Received
-Ve

Decision by Editor

If unsatisfied with both Referees, send to third Referee

Comments Received
+Ve

Reject

Comments Received
-Ve

Revised copy received, if not satisfied, send it for Re-modification

Revised copies received, if satisfied, send it to Layout editor

2nd Proof received, send to Author

Final proofs send to Press for Publication

Hard copy received

Soft copy received, uploaded on DIPA portal
Step-1.3 Work process for any contradictory remarks on Manuscript

1. Author
2. MS submitted
3. Reviewed by Editor/Editorial Board
4. Found suitable, sent to two Referee’s
5. Referee One
   - Comments Received -Ve
   - If not satisfied by author, send it for Re-examination
     - Comments Received +Ve
     - Continued on as in step 1.2
6. Referee Two
   - Comments Received -Ve
   - Reject
7. Sent for modification

Continued on as in step 1.2
Step 1.4 Work process

1. **Author**
   - MS submitted
   - Reviewed by Editor/Editorial Board
   - Found suitable, sent to two Referee’s

   **Referee One**
   - Comments Received +Ve
   - Sent for modification
   - Continued on as in step 1.2

   **Referee Two**
   - Comments Received +Ve
6. On-line article processing system

6.1 Home Page
The home page of Open access ICAR Journals can be accessed by entering http://epubs.icar.org.in/ejournal.

It can also be accessed through www.icar.org.in and visiting the Publication from the website menu.
6.2 About the Journal
The personnel involved with the Editorial team are placed under the column People.

Policies of the Journal: Different policy aspects of the journal: the journal's scope; review policy; author guidelines are available on this page.

6.3 Registering with a Journal

Unregistered visitors to a journal may register as a Reader, Author, and/or Reviewer. To register with a journal, click the Register link on the topmost navigation bar, select the journal you want to register with if asked, and fill out the ensuing form. One will not be able to self-register for an Editorial Role (Editor; Section Editor; Copyeditor; Layout Editor; Proofreader; Subscription Manager; or Journal Manager).

All fields with an asterisk beside them (Username; Password; Repeat Password; First Name; Last Name; Email; Confirm Email) are mandatory.

The username and your email address must be unique; furthermore, while one can change the email address at a later date, one will be unable to change your username.

To register as a Reviewer, reviewing interests are to be given.
6.3.1 Go to Login

If registered user click on Log In.
Give username and password to log in. This will open the platform for which you are registered.

If you are not registered user, click on register (arrow) above and register as per your requirement.

6.3.2 Go to Registration
Effective Management of E-Resources in Research Libraries

6.3.3 Reviewer Registration
A Reviewer has facility to join with the Journal to review the manuscript with the permission of Editor and also can be registered directly as Reviewer on the web portal.

Note: Reviewers are requested to submit their all details including Subject Specialization (Major and Minor, 4-5 key words of area of specialization along with their emails.

6.3.4 Viewing and Changing your Profile
To view and edit profile, log in and click the Edit My Profile link from the User Home page. Alternatively, once logged in, one can always click the My Profile link from the User Navigation block on the sidebar, if available. From here, one can update the email address, change the personal information, or change password.
6.3.5 Change Password

The password can be changed on clicking change password under User icon by entering current password and chosen new password (arrow).

6.3.6 Resetting Password

Resetting password is a simple process if the user remembers it and just wants to change it to something else: log in, and from the User Home page click the Change Password link. User has to enter the current password, and then the new password twice.

Resetting the password if one has forgotten it is still a simple process, but it takes a few more steps:

1. Click the Log In link on the topmost navigation bar.
2. Click the Forgot Your Password? Link.
3. Enter the email address in the box provided, and click the Reset Password link. This will send a confirmation email to your email address (if one does not see an email in the Inbox, check your spam folder) (Please check the spam folder also).
4. The email will include a link to reset the password: click it, and return to the journal web site.
5. On returning to the journal web site, user should be notified that an email containing a new password has been sent to your email address. Check for that second email, and use the new credentials to log into the site.
6. After successfully logging in, user will be used to immediately change the password. Enter the emailed password first (Current Password), and then a new, secret password twice (New Password, Repeat New Password).
6.4 About Author

Authors submit manuscripts to the journal directly through the journal's website. Author uploads a submission file and provides metadata or indexing information. (The metadata improves the search capacity for research online and for the journal.) Author can upload Supplementary Files, in the form of data sets, research instruments, or source texts that will enrich the item, as well as contribute to more open and robust forms of research and scholarship. The Author is able to track the submission through the review and editorial process — as well as participate in the copyediting and proofreading of submissions accepted for publication — by logging into the journal's website.

6.4.1 Author Guidelines

These guidelines will appear on the About the Journal page and be available for potential authors to consult before Submitting.

6.4.2 On-line Submission

- A registered user login directly by entering the user name and password.
- A new user has to register first.
Step 1 ensures that the Author understands the journal's submission rules. The Author will have to pick the appropriate section to submit to, and will be provided with information on the journal's privacy statement, copyright notice, competing interest statement and/or author fees, if applicable.
SUBMISSION CHECKLIST

Indicates that this submission is ready to be considered by the journal by checking off the following comments to the editor can be added below.

- The article has been read by all authors, and they are satisfied with its form and content. The sequence of names of authors at the by-line is in their relative contribution to the experiment, giving due credit to all scientists who made notable contributions to it.
- The submission has not been previously published, nor is it before another journal for consideration (or an explanation has been provided in Comments to the Editor).
- The submission file is in Microsoft Word format. The text is single-spaced, uses 12-point font; employs italics, rather than underlining (except with URLs, addresses), and all illustrations, figures, and tables are placed within the text at the appropriate points, rather than at the end.
- Where available, URLs for the references have been provided.
- The text adheres to the stylistic and bibliographic requirements outlined in the Author Guidelines, which is found in About the Journal.
- If submitting any revised section of the journal, the instructions in Ensuringblind Review have been followed.
- The author(s) and all affiliations are given in the by-line (changes of author's address are given in the format).
- The article is submitted soon after completion of the experiment.
- Short-reports and case reports M. Sc. thesis- part of Ph.D. thesis or article from experiment is being submitted. In case of dissertations, details being provided in comments to editor column below.
- The article is not a clinical article or based on survey on developmental program or related animal product preparation.

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- The authors agree to the terms of this Copyright Notice, which will apply to this submission if and when it is published by this journal (comments to the editor can be added below).

Letter to Editor: A covering letter with a request to Editor may be posted here for Editor Consideration. If authors want to communicate any other message to Editor regarding his/her article.

JOURNAL'S PRIVACY STATEMENT

The name and email address entered in this journal will be used exclusively for the stated purposes of this journal and will not be made available for any other purpose or to any other party.

COMMENTS FOR THE EDITOR

Interested (optional)
Copyright notice: Author is advised to go through the ARTICLE CERTIFICATE and submit in original by post to Editor Address.

**Step 2 Uploading the Submission**

Submission Step Two allows you to upload the submission file, typically a word-processing document.

- Click Browse to open a Choose File window for locating the file on the hard drive of your computer.
- Locate the file you wish to submit and highlight it.
- Click Open on the Choose File window, which places the name of the file on this page.
- Click Upload on this page, which uploads the file from the computer to the journal’s web site and renames it following the journal’s conventions.
- Once the submission is uploaded, click Save and continue.

**Note:** Make sure that File size should not be more than 2 MB. If, yes, please split as Table and Figures separately and add Table and figure in Step 3 as a supplementary file.

If there are multiple authors for the submission, their information can be added using the Add Author button. You can also re-order the list of authors, make one of the authors the principal contact with the editor, and delete any authors added in error.

Note: Next, enter the submission title and abstract.

**Step 3. Entering the Submission’s Metadata**

In the third step, all author’s detailed information to be filled by corresponding author.
Affiliation- Please mention the name of Institute/University/organization.
Bio-statement- Please mention the Designation and Division name/ other
Add Author 1- on clicking to add author, you will be provided space to fill the information
Add Author 2- If, needed
Add Author 3- If, needed

**Step 4 Uploading of Supplementary File**

This step is optional. If you have any supplementary files, such as research instruments, data sets, etc., you may add them here. These files are also indexed by the author, identifying their relation to the submission, as well as their ownership. Supplementary Files can be uploaded in any file format and will be made available to readers in their original format.
• Locate the file you wish to submit and highlight it.
• Click Open on the Choose File window, which places the name of the file on this page.
• Click Upload on this page, which uploads the file from the computer to the journal’s web site and renames it following the journal’s conventions.
• Once the submission is uploaded, click Save and Continue.

**Submission Step 5: Confirming the Submission**
This final step provides a summary of your submission.

Note: This final step provides a summary of your submission.

**Active submission on Authors Screen:** The author’s screen will change in following manner.
**Finish Submission:** As the author successfully completes the submission, an automated Email will be sent on authors Email address mentioning the ID no. of the submitted manuscript.

6.4.3 Submission Acknowledgement

Note: Author can directly open their page on clicking to URL mentioned.

6.4.4 Active Submission— Author Screen
Once an author has submitted their paper they cannot access it again to make changes until you return it to them for revision. They can track the progress of the paper from their Author Centre but they cannot view the paper or edit it while it is in the Editor Centers. Authors cannot see how many reviewers have been invited or how many reviewers have replied. They also cannot see when a paper shows overdue.

If you are the author or co-author on a paper, you will not be able to see it in your Editor Centre as the system prevents authors from seeing their own work - this is to maintain the blind review process.

This page will list any of your submissions to the journal that are still in process (e.g., awaiting assignment to an editor, undergoing review, being edited) or incomplete (in which case you can return and finish the submission at any point). Each completed submission will fall into one of the following categories:

- **Awaiting Assignment:** The submission has been completed by you; you cannot now delete the submission from the system yourself. The Editor can now see the submission, and must assign an Editor or Section Editor to it.

- **Queued for Review:** The submission has been vetted and is now in the review process. You should receive notice shortly on the review decision.

- **Queued for Editing:** the submission has completed the review process and has been accepted for publication; it will now make its way through the system's copyediting, layout editing and proofreading processes.

### 6.4.5 REFBACKS

The RefBacks section displays any incoming links from external web sites such as blogs, news sites, or other articles that link directly to your articles. Each RefBack can be edited: it can be ignored, deleted, or published, in which case it appears publicly at the end of your published article on the web site.

### 6.4.6 Archive

Your Archive page will list all declined submissions, as well as any published submissions along with information on which issue they appear in.
6.5 Editor Home

The Editor Home page is chunked into three distinct sections: the Submissions section, with Unassigned, In Review and In Editing queues as well as a link to the submission Archives; a submission search section; and the Issues section, where the editor can schedule and publish new issues and edit previously published content.

- Click **Unassigned** — This will take Editor to the list of unassigned manuscript.
- Click **In Review** — This will take Editor to the list of reviewer assigned manuscript.
- Click **In Editing** — This will take Editor to the list of manuscripts under editing.
- Click **Archived** — This will take Editor to the list of archived manuscript.

6.5.1 Managing My Account: Editor Account can be managed as-

- My Journal
- My profile
- Change Password
6.5.2 Unassigned Submissions

When an author completes a submission it automatically arrives in the Editor's Unassigned queue, available from the Editor's User Home page. If the submission was made to a journal section with an assigned Editor, submission will go directly to the In Review queue.
Click the Unassigned link to go to the unassigned queue. The Unassigned page contains links to the other queues (In Review, In Editing, and Archives), a search function, and the list of submissions awaiting assignment to the Editor. To assign a submission, you must click the submission title. This will take you to the submission record.

6.5.3 In Review History

Editor can assess the action taken date, due date, action to be done or Action completed by Reviewers, through "Submissions in Review" screen.

Note:

1. Highlighted items indicate action is required by editor.
2. "Due" is filled in when reviewer accepts request to review; it displays number of weeks to review's due date or (-) weeks that it is overdue.

If any information is required regarding articles under review, this form provides for searching through Editor Name, Author name, Reviewer name, Article Title or through submission dates search.
6.6 Peer review

The request to review an article is initiated by the editor by assigning the suitable referees and sending them email request through the system. However, reviewers are provided access to the complete manuscript, only after accepting the review request sent by Editor to review it - either by clicking on the 'agreed' link in the invitation email or by reviewer directly updating the system online through their “User Home”. If the reviewer sends the acceptance or rejection through personal email, the editor will need to register this in the system to prevent them from receiving reminders to respond to the invitation.

6.6.1 Assigning the article

# — This gives the ID no. of a particular manuscript
Effective Management of E-Resources in Research Libraries

Click **Summary** — This gives the authors detail, submission history, metadata, abstract and authors comments (if any) to Editor.

Click **Review** — This gives the details of review round, comments and editors decision. An article remains in the “In Review” status until the editor records their decision to accept the reviewers’ comments and modified manuscript submitted by authors.

Click **Editing** — This gives the details of manuscripts in editing round, layout, scheduling in the unpublished/ future journal issues and proof reading.

Click **History** — This gives chronological details of all decisions taken on the manuscript from the submission by author and correspondence (Emails history) that took place between Editor to Author and Editor to Reviewers.

Click **Archive** — This gives details of the submitted manuscripts rejected at any stage of the article processing.

**Step-1 Initial review of the manuscript and article metadata by Editor**

If “Original file” parameter (screen above) is showing none, that means some errors have been made by author in uploading the article manuscript and supplementary files. In such case request author for resubmission of the manuscript.

**Section** - Check that the correct section – Article/ Review/ Short Communication (arrow previous screen) is mentioned or not, as it will help at the time of making a fresh issue of the Journal. In case of any incorrect section, editor should change the article section here appropriately.

**Assigning Editor**: Editors are registered in the system by the system administrator only.

Next step involves assigning the article to editors concerned. If more than one editor is involved in the editorial activities then the article is assigned to these persons through the “Add section editor/Add editor” option depending upon the Journal Policy. If only one Editor is involved, click on **Add self** to start the further processing of article.

**Checking of submission Metadata**

Submission metadata should be checked by Editor to ensure that information given by author is complete in all respect. It also helps when editor assigns a Manuscript to the reviewers. It may be kept in mind that selected reviewers should be from organization/Institute different from that of the author.
If, Editor finds any missing details, may ask the author to submit the information; author screen will show the request made by editor.

Add a Supplementary file: In case of requirement of any photographs/table/data or some other relevant information by the Editor / Editorial Board as well as Reviewer, author has facility to provide it through “Add a supplementary file” option here.
Current Status of the Article: Author has facility to view the current status, once he submitted an article to the Journal (screen).

Step-2 Reject and Archive: Reject and archive submission by the editor on initial scrutiny could be on the following circumstances as –

- If, the article I not as per the scope and criteria.
- If, Year of study not given in the article or Data is more than 5 years old.
- If, article is not much interest of the reader of the journal.
- If, information given does not fall under the purview of the Journal.
- If, does not involve research work.
- If, article is of Thematic/Local/Regional importance.
- If, no any new information’s given and information are confirmatory in approach.

Author’s screen shows the changes in the status of article as and when editor initiates any action on the article.

“1 Archive” as shown in the screen means an article has been rejected by the Editorial Office.

Author will receive an email related to the action taken by the editor.
6.6.2 Peer Review round- The assigned Editor click review (arrow) to come on the review screen.

Select Reviewer: On clicking to select reviewer, a list of all the reviewers will appear on screen.

Total list of reviewer appears in alphabetical order. Drop down-
- Reviewers interest- different fields.
- First name
- Last name
- Username
Editor has also a facility to search the names in alphabetical order or on putting some keywords related the Reviewers interest.

Reviewer Profile: Click on the name of reviewer and profile will appear. Editor can check the reviewers profile to know that is it right person to review this manuscript or not. **Editor should send general emails to all reviewers to update their profiles.**

Create a New Reviewer — By clicking on this option, Editor can create a new reviewer and send him/her a welcome email informing him his username and password. For this option, Editor must have the email address of the reviewer.

Rating of a reviewers and Active Assignment should also be kept in mind, before assigning any new assignment.

**Select field wise** - This option gives wider choice as all enlisted reviewers interested in that field are available.

To check the profile of the selected Reviewers, click on the name and profile will be available.

*If the Reviews profile is not updated, send a request to Reviewer to update his profile (area of specialization, designation, department, year of experience, etc.).

*Action- click on assign to assign a reviewer.
Select Reviewer Form: A copy of comment sheet should be attached before request is being sent to Reviewer, so that Reviewer can give general comment on the presented manuscript. On clicking of Select Review Form, A separate dialog box having Review Form will appear.

Comment sheet for Editor:
Editor can preview the Review form before it is send to Reviewer.
Click **preview** to check the comment sheet for referee.

**Assigning a Review Form:** Click **Assign**, and it will be attached with the manuscript and ready to go to a Reviewer.
Clear Review Form represent that comment sheet has been attached; if you want to remove it, please click Clear Review Form.

**Request Reviewer:** Clicking request, an automated request letter will appear. If editor wants to add any other point, he can make the changes.

The following email will go the reviewer.

Screen display below shows reviewer’s user home where changes appear showing that Reviewer has received an article for reviewing.
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A Reviewer can view the following information, when he receives an article for evaluation:

- Title
- Journal section
- Abstract
- Submission metadata
- Review Schedule
- Review Steps

REVIEWER GUIDELINES
Reviewing Steps

1. Send response to Editor after reading the abstract received by Reviewer that **will do the Review**

OR **unable to do the Review**. Full paper will be visible when Reviewer sends Request to Editor that he will do the assignment. Editor will receive the following emails communicating the decision of reviewer.

2. Reviewer can see the review form

3. When Reviewer completes the Review of manuscript, he can upload the Reviewed version and send to Editor.

**Reviewer guidelines:** Reviewers must read the guidelines before any action.

Reviewer submits the completed Review of manuscript.
4. Submit Review version to Editor: Editor receives the following email from reviewer when he submits the review.

6.6.3 Editor decision on reviewers’ comments

Comments received from Reviewers: To check comments from the reviewer editor can adopt any of the two methods viz. from view and from the list given in submission in review.

1. Checking view
   a. Check view (arrow marked) click on this and it will open notification window
   b. in Notification, click on URL, this will take the editor to related manuscript.
2. Check submission review

1. Highlighted items indicate action is required by editor (arrow).
2. "Due" is filled in when reviewer accepts request to review; it displays number of weeks to review's due date or (-) weeks that it is overdue.
3. "Done" indicates that reviewer has done the editing; by clicking on the article title the editor can go to the particular article and see the reviewer's comments.

6.6.3.1 Editor decision process

From any of the above two processes, editor can go to the respective article.

**Review Rating:** Editor has to decide the rating of a reviewer depending on valuable contribution to the Journal and time taken in reviewing an article by him.

(i) Editor checks the Review form response for comment sheet (click on review form response).

(ii) Checks the uploaded files submitted by reviewer, if feels appropriate clicks record so that review version is available to Author for his perusal.
Editor selects a decision by selecting from drop down and then clicks on record decision.

Record decision: From this section Editor can notify Decision to author once reviewer has submitted the reviewed file, and editor has viewed the reviewers' comments.
Possible decisions include:

- **Accept**: The submission has been accepted (following email is sent); Editor may keep either of the comments.

- **Revisions Required**: Your submission requires minor changes and will be accepted once those have been completed. The following email will be sent to author.

![SEND EMAIL](image)
The following changes will appear on the author screen.

- **Resubmit for Review**: Your submission needs significant re-working. The modified manuscript must be submitted which will be sent for another round of review (the following email will be sent to author).
• **Reject:** Your submission was not accepted for publication with this journal, either because it was not found to be of high quality, or its subject did not match the journal (the following email will be sent).

![Email screenshot](image)

**Notify Author for Modification:** A letter may be issued to author for modification on clicking the marked point. Screen display below showing letter to be issued for modification.

Notification in the Editor screen will show the following change (arrow).
The author will receive the following email

If editor adds comments (by clicking at encircled point),

The email to author will carry the comments made by editor also (made by editor in dialogue box—marked by the arrow)
The editor should send his comments also on the manuscript at this stage, as per the recorded decision.

1. **Accept submission**- Author should be informed to follow the style of the journal for presentation of abstract, key words, present address, table, figures and references (see author’s guideline).

2. **Revision required**- Author should be informed to follow the style of the journal for presentation of abstract, key words, present address, table, figures and references (see author’s guideline).

3. **Resubmit for Review**- Ask the author to modify the article according to reviewers’ comment and also follow the style of the journal for manuscript presentation.

4. **Decline submission**- Send reviewers’ comment along with manuscript stating that the article has been rejected due to reviewer’s comment.

After receiving the modified manuscript from the author which will be visible at author version (arrow).

**NOTE:** Select the author version for copyediting and click **send**. Clicks on send, the article will shift from review to editing process.
Author Notification: After editor conveys the decision to author following notification appears on clicking VIEW.

- Changes occur on Author screen when the article is in editing.

**Author’s screen at the time of Editing:** The author’s screen showing active submission is changed as status of the submitted article is Under Editing.

**6.6.4 Copyediting of Manuscript:**
Copyediting

The Copyeditor edits articles to improve grammar and clarity, ensures that author follows in-house style for text, table and reference presentation, and prepares a final edited copy for the production officer to prepare page proofs (or gally proofs) that will be in the published in the format of the journal.

- Step 1: Copyediting step initiated by editor (in case, there is no Copyeditor) by clicking on INITIATE, the date of start will show on the screen and when he completes the editing process, clicks on COMPLETE and again the date will appear. Editor downloads the ms, edits it and uploads by clicking browse and upload (arrow) at second step. The ms will appear at author copy edit (arrow)

As the step 1 process completed, the indication shifted from step 1 to step 2 as indicated above.

A request may be sent to author to check the corrections made in copyedited manuscript.
The following request mail is sent to author.

• Step 2: Author can review the Copyeditor's changes, and make any final changes of his own. He will upload the revised article. Be sure to use the email icon to notify the Copyeditor that you have submitted your file. Screen shot below is showing the uploaded and checked version of
copyedited manuscript by author. Encircled point indicating that acknowledgement letter may be issued.

Author submits the modified article and following notification appears on clicking VIEW at editor user home.

Note- Click on Go to URL as marked by arrow, the respective article page will display on the Editor screen.

• Step 3: The Copyeditor finalizes the manuscript before passing the submission over to the Layout. Screen shot showing below the uploaded the checked version of copyediting manuscript to be checked and again may be upload by editor as Final copyedit.
6.6.5 Scheduling of Article

The article is scheduled for an issue.

The issue is created and articles are assigned to the identified issue.

All identified articles are now available on content page, arranged in three sections, viz. Review article, Article and Short Communications.

These articles are sent to Layout editor for page make up.
6.7 Layout Editor/Production Officer

The Production Officer transforms the edited manuscript of the articles into page proofs for print version as well as in PDF files for electronic publication.

Step 1. A request is sent to layout editor for preparing the layout of the article as per the format of the journal and submits PDF as well as print version of the proof.

Production officer will download all the articles and sent for page makeup.

Step 2. Layout version completed
Step 3. Gally format

Acknowledgement to Layout editor

6.8 Proofreading

The Proofreader carefully reads over the galleys in the formats in which the journal publishes (as does the author). The Proofreader (and the Author) records any typographic and formatting errors for the Layout Editor to fix.

Editor sends the following Email to Author for Proof correction
Effective Management of E-Resources in Research Libraries

Editor receives following Email from Author after completion of proofreading.

SEND EMAIL
To: mrsarunakumar60@gmail.com
CC: 
BCC: 

Attachments

From: "ARUNA T. KUMAR" <editor@journals.icar.org.in>
Subject: [Email] Proofreading Completed (Author)

Body:
ARUNA KUMAR,

Corrected PDF of Proof of the article "Base line survey of Indian Journal of Animal Science", for The Indian Journal of Animal Sciences, is attached. Please be kind enough to you are final and ready for printing.

Mrs Aruna T. Kumar
Acknowledgement: The editor sends the following email informing the author that gally proof has been received.

6.9 Issue Published

A notification is sent to all after the issue has been posted on-line (as encircled)

Click on URL (arrow) and the content page of the recently published issue will be available.
If editor wants to see the previous issues of the journal he may click **By issue.**

### 6.10 Search tips

- Search terms are case-insensitive
- Common words are ignored
- By default only articles containing *all* terms in the query are returned (i.e., **AND** is implied)
- Combine multiple words with **OR** to find articles containing either term; e.g., *education OR research*
- Use parentheses to create more complex queries; e.g., *archive ((journal OR conference) NOT theses)*
- Search for an exact phrase by putting it in quotes; e.g., "open access publishing"
- Exclude a word by prefixing it with - or **NOT**; e.g. *online -politics or online NOT politics*
- Use * in a term as a wildcard to match any sequence of characters; e.g., *soci*\* *morality* would match documents containing "sociological" or "societal"
Browse by Author Index: Editor can search earlier published articles of an author by browsing the author index.
Browse by Title Index: Editor can search earlier published articles of an author by browsing the title index.

Announcements

No announcements have been published.

This allows you to create an Announcements page for your journal web site, and post messages to your readers. Once this is activated, an Announcements link will automatically appear in the navigation bar of the journal, and an Announcement section will be added to the Journal Manager's Management Pages menu.

Statistics

The Statistics section provides a summary of the journal's usage. The checkboxes can be used to make these statistics available to readers in About the Journal.

Emailing Users

An email message can be send to several (or all) users at once is a useful feature available at the bottom of this page. To use this function, check each of the desired recipients (or use the Select All button), and click Email Users. This will bring up an email message that can be written in and send to everyone. The Select All button only selects all on that page. If the user list covers several pages, there is need to select all for each page (or temporarily make the list all fit on one page using the Lists option in the Journal Setup).
SCOPE AND CRITERIA FOR CONSIDERATION OF ARTICLE

The Indian Journal of Agricultural Sciences

The Indian Journal of Agricultural Sciences publishes papers concerned with the advancement of agriculture throughout the world. It publishes original scientific work related to strategic and applied studies in all aspects of agricultural science and exploited species, as well as reviews of scientific topics of current agricultural relevance.

Specific topics of interest include (but are not confined to): genetic resources, all aspects of crop improvement, crop production, crop protection, physiology, modeling of crop systems, the scientific underpinning of agronomy, engineering solutions, decision support systems, land use, environmental impacts of agriculture and forestry, impacts of climate change, rural biodiversity, experimental design and statistical analysis, the application of new analytical and study methods (including molecular studies) and agricultural economics.

The journal also publishes book reviews. Articles are accepted on the following broad disciplines:

- Agric. Engineering & Technology
- Agric. Social & Economic Sci.
- Agronomy
- Biometry
- Biosciences
- Cytology
- Ecology
- Environmental Sciences
- Fertilization
- Forestry
- Genetics
- Horticulture
- Microbiology
- Pest
- Weed Control etc.
- Molecular Biology
- Plant Pathology
- Plant Breeding
- Physiology and Biochemistry
- Soil Sciences
- Special Cultivation Technology
- Stress Breeding
- Agric. extension
- Cell Biology

The Indian Journal of Animal Sciences

Articles published in The Indian Journal of Animal Sciences encompass a broad range of research topics in animal health and production related to cattle, buffalo, sheep, goat, camel, equines, pig, rabbit, yak, mithun, poultry and fisheries. Studies involving wildlife species and laboratory animal species that address fundamental questions about their biology will also be considered for publication. All manuscripts must present some new development and must be original, timely, significant and scientifically excellent. Papers will be rejected if standards of care of, or procedures performed on animals are not up to
those expected of humane veterinary scientists. At a minimum, standards must meet the International Guiding Principles for Biomedical Research involving Animals, as issued by the Council for International Organizations of Medical Sciences. (C.I.O.M.S., c/o WHO, CH 1211 Geneva 27, Switzerland). Articles reporting new animal disease must follow GOI directive as given in detail in Guidelines to Authors. The readership of the journal is global. *The Indian Journal of Animal Sciences* is published both online and in print mode. *The Indian Journal of Animal Sciences* includes articles on following disciplines:

I. Animal Health

1. **Epidemiology:** Research findings and methodological developments in the field of epidemiological research; epidemiology of both communicable and non-communicable diseases.

2. **Immunology:** Broad range of experimental studies in molecular and cellular immunology: vaccine — molecular biology, synthetic peptides, recombinant antigens, vectors, new immunogens, adjuvants, immunity, immunology of protection, fertility, academic research, developmental applications, field trials, epidemiology, efficacy, cost/benefit (biology of cells and mechanisms of the immune system, immunochemistry, immunodeficiency's, immunodiagnosis, immunogenetics, immunopathology, immunology of infectious disease and tumours, immunophrophylaxis to infectious disease including vaccine development and delivery, immunological aspects of pregnancy including passive immunity, reagent development including development of antibodies to new differentiation antigens and cytokines and gene isolation, interaction of the immune system with other tissues including autoimmunity, transplantation immunology.

3. **Veterinary microbiology:** Veterinary Microbiology is concerned with microbial (bacterial, fungal, viral) diseases of domesticated animals (livestock and poultry). In addition, Microbial diseases of wild animals living in captivity, or as members of the feral fauna will also be considered if the infections are of interest because of their interrelation with humans (zoonoses) and/or domestic animals, or for comparative or other scientific reasons. Studies of antimicrobial resistance are also included.

Original research papers of high quality and novelty on aspects of control, diagnosis, epidemiology, host response, immunology, molecular biology, pathogenesis, prevention, and treatment of microbial diseases of animals are published. Drug trial papers are accepted if they have general application or significance. Papers on the identification of microorganisms are also accepted, but detailed taxonomic studies do not fall within the scope of the journal. Case reports are usually not accepted, unless these have general application or contain novel aspects. Papers of geographically limited interest, which repeat what had been established elsewhere, will not be accepted.
4. **Parasitology:** Original papers, from all geographical areas and covering all parasitological disciplines, including structure, immunology, cell biology, biochemistry, molecular biology, and systematic are considered. Reviews on recent developments may be submitted. Papers of the highest quality dealing with all aspects of disease prevention, pathology, treatment, epidemiology, and control of parasites in all domesticated animals fall within the scope of the journal.

Parasitological studies on laboratory animals are considered only if they provide a reasonably close model of a disease of domestic animals. Papers relating to wildlife species where they may act as disease reservoirs to domestic animals, or as a zoonotic reservoir, are also considered. Papers dealing only with the taxonomy of parasites are not accepted.

5. **Veterinary public health:** Articles included are on — infection prevention and control, microbiology, infectious diseases, public health and the application of healthcare epidemiology to the evaluation of health outcomes. The information must advance the scientific knowledge of the sources, transmission, prevention and control of zoonoses. Articles that incorporate recent data into new methods, applications, or approaches (e.g. statistical modeling) which enhance public health are also considered.

6. **Medicine:** Epidemiology of domestic and wild animals, costs of epidemic and endemic diseases of animals, the latest methods in veterinary epidemiology, disease control or eradication, relationships between veterinary medicine and animal production, and development of new techniques in diagnosing, recording, evaluating and controlling diseases in animal populations.

7. **Pharmacology and toxicology:** Basic and clinical aspects of veterinary pharmacology and toxicology; toxic effects observed at relevant exposures, which have direct impact on safety evaluation and risk assessment — articles on these aspects are included in the journal.

8. **Surgery and radiology:** Articles having up-to-date coverage of surgical and anesthetic management of animals, and addressing significant problems in veterinary surgery with relevant observations are considered.

9. **Pathology:** Original articles presenting findings on all aspects of general, anatomic and molecular pathology, coverage of the most recent developments across the entire field of pathology and reviews focusing on recent progress in pathology, are included.

10. **Avian diseases:** Articles on etiology, pathogenesis, diagnosis, and control relevant to avian diseases are considered.

11. **Reproduction:** Original research and timely reviews on topics relating to reproduction and fertility in animals are included — both fundamental research and applied studies, including management practices that increase our understanding of the biology and manipulation of reproduction; animal physiology and biochemistry of reproduction; animal reproductive biology and biotechnology, including basic and applied studies in cryobiology of gametes and embryos, conservation biology, and assisted reproduction of
domestic, wild, avian species and captive and endangered species including zoo animals.

12. **Biochemistry & biotechnology:** Articles of original research in the fields of biochemistry and biotechnology and papers presenting information of a multidisciplinary nature are particularly welcome.

13. **Anatomy and histology:** Publishes original papers, invited review articles and book reviews with main focus on understanding development, evolution and function through a broad range of anatomical approaches. Articles on bioinformatics and other topics clarifying functional and anatomical understanding will also be considered. Priority will be given to experimental studies, to contributions based on molecular and cell biology, and on the application of modern functional imaging techniques. Studies that are essentially descriptive anatomy will only be published if the Editor considers that these are of functional significance. Also include original papers covering a link between anatomy and molecular biology, cell biology, reproductive biology, immunobiology, developmental biology, neurobiology, embryology as well as neuroanatomy, neuroimmunology, clinical anatomy, comparative anatomy, modern imaging techniques.

II. Animal Production

1. **Genetics and Molecular tools:** Areas covered in the journal are genetic resources; genetics and genomics, immunogenetics, molecular genetics and functional genomics of economically important and domesticated animals; evolutionary and comparative genomics, including phylogenomics; study of variability at gene and protein levels, mapping of genes, traits and QTLs, associations between genes and traits, genetic diversity, and characterization of gene expression and control; animal genetic resources; computational biology, bioinformatics and biostatistics, complex gene studies, population genomics, association studies, structural variation, and gene-environment interactions; genomic approaches to understanding the mechanism of disease pathogenesis and its relationship to genetic factors; medical genomics, application of genomic techniques in model organisms.

2. **Breeding:** Articles are included on — crossbreeding, its impact on economic traits of animals; progress in animal production and quantitative genetics.

3. **Nutrition:** Areas covered in the journal are — nutritive value of feeds (e.g., assessment, improvement); methods of conserving and processing feeds that affect their nutritional value; rumen manipulation; agronomic and climatic factors influencing the nutritive value of feeds; utilization of feeds and the improvement of such; metabolic, production, reproduction and health responses to dietary inputs (e.g., feeds, feed additives, specific feed components, mycotoxins); mathematical models relating directly to animal-feed interactions; analytical and experimental methods for feed evaluation; pasture, plant-animal relationship.
• **Behavior, housing and climatology:** Articles are included on — behavior of farm, zoo and laboratory animals in relation to animal management and welfare; studies of the behavior of wild animals when these studies are relevant from an applied perspective, for example in relation to wildlife management, pest management or nature conservation; aspects of shelter design and animal housing that affect health and physiology of animals; effect of climate change on breeding, feeding and health in animals and its mitigation.

4. **Livestock economics, marketing and extension:** Livestock economics and related disciplines such as statistics, marketing, and their application to issues in the livestock, food, and related industries; rural communities, and the environment; new extension issues are considered for publication.

5. **Statistics:** Articles on development and use of statistical methods in the animal sciences and fisheries are considered for inclusion in journals.

6. **Indigenous technical knowledge:** Articles related to validation of indigenous knowledge on any field of animal sciences; organic farming is included in the journal.

### III. Animal Products

• **Animal products:** Methods to improve production, quality and shelf life of dairy, meat and egg products, and wool and hide are in the scope of the journal.

### IV. Fisheries

• Articles on fisheries in salt, brackish and freshwater systems, and all aspects of associated ecology, environmental aspects of fisheries, and economics, are considered. Both theoretical and practical papers are acceptable, including laboratory and field experimental studies relevant to fisheries. Papers on the conservation of exploitable living resources and review articles are also published. The approach of the journal is multidisciplinary.
GUIDELINES TO AUTHOR

The Indian Journal of Agricultural Sciences

1.1 The Indian Journal of Agricultural Sciences is published every month.

1.2. MANUSCRIPT SUBMISSION, Article (in MS word) along with tables, figs. (Preferably single file) should be uploaded on-line to The Indian Journal of Agricultural Sciences at www.icar.org.in (Publication).

2.1 PAPERS ON ORIGINAL RESEARCH COMPLETED, not exceeding 3,500 words, should be exclusive for the journal. They should present a connected picture of the investigation and should not be split into parts.

2.2 SHORT RESEARCH NOTES not more than 1,500 words, which deals with (a) research results which are complete but do not warrant comprehensive treatment, and (b) descriptions of new material or improved techniques, with supporting data. Such notes require no headed sections. In short notes headings are also not given. Summary (not more than 80-100 words) is to be provided at the end of the text.

2.3 CRITICAL RESEARCH REVIEW pointing out lacunae in research and suggesting possible lines of future work.

2.4 Contributors are requested to ensure that the research papers or notes submitted for publications have a direct bearing on agricultural production or open up new grounds for productive research. Basic types of papers and notes which relate to investigations in a narrow specialized branch of a discipline may not form an appropriate material for this journal. Author should check that articles have all the following sections and appear in that order of:

- Title, Name(s) of author(s), Complete postal address(es) of affiliations (place where work was conducted)
- Present address(es) of author(s) if applicable; Complete correspondence address including e-mail address to which the proofs should be sent (these are given as footnote on first page).
- Abstract, Keywords (indexing terms), normally 3 – 6 items.
- Introduction (without heading)
- Materials and methods
- Results and discussion
- Conclusion (without heading)
- Acknowledgements
- References
Tables
Figure captions
Figures (separate file(s))

Note: Titles and subtitles should not be run within the text. They should be typed on a separate line, without indentation. Use lower-case letter type.

The Journal reserves the privilege of returning to the author for revision of accepted manuscripts and illustrations which are not in the proper form given in this guide.

3.1 The manuscript of the paper starts with the title. It should be short, specific and informative. It should be phrased to identify the content of the article must include the nature of the study, and technical approach, which is essential for key-word indexing and information retrieval. Title should be as brief as possible, and include the species involved in the research when applicable. Abbreviations are not permitted in the title.

3.2 In addition, a SHORT TITLE not exceeding 50 letters should be provided separately for running headlines.

3.3 The BYLINE should contain, in addition to the names and initials of the authors, the place where research was conducted. Naming an author on a paper implies that the person named is aware of the research reported and agrees with and accepts responsibility for any results or conclusions reported. The address of the institution should include the name of the institution, city, Pin code and country. Present address should be given as a footnote. When a paper has several authors from different institutions, key the author to the address with superscript Arabic numerals and present the additional addresses as footnotes at the bottom of the page, e.g. Present address: Give designation, present address of all the authors and email of corresponding author.

1Designation, Division of...(1email of first author); 2Designation, Division of...(if second author is from different division), 3Designation, Division of...(if the author is from different place).

4. The ABSTRACT, written in complete sentences, should not have more than 250 words. It should contain a very brief account of the materials, methods, results, discussion and conclusion, so that the reader need not refer to the whole article except for details. It should not have references to literature, illustrations and tables. The abstract should summarize pertinent results in a brief but understandable form. The abstract should start with a clear statement of the objectives of the experiment and must conclude with one or two sentences that highlight important conclusions. "An abstract is defined as an abbreviated accurate representation of the contents of a document, preferably prepared by its author(s) for publication with it. Such abstracts are also useful in access [abstracting] publications and machine-readable databases".
4.1 Key-words: At the end of the abstract, list up to six key words that best describe the nature of the research. Because major words in the title are not used in the subject index, appropriate words from the title (or synonyms) should be listed as key words.

**Major headings** are MATERIALS AND METHODS, RESULTS AND DISCUSSION, and REFERENCES

Major headings of review papers or papers from symposia may deviate from this standard format; however, all papers must contain an abstract, key words, and an introduction. Abbreviations should be avoided in headings.

5.1 The INTRODUCTORY part should be brief and limited to the statement of the importance of the study, problem or the aim of the experiment. And may briefly justify the research and specify the hypotheses to be tested. The review of literature should be pertinent to the problem. Objective of the study should be discussed in view of latest references. Authorities for the Latin binomial of every organism are not used in the title or summary, and only on the first mention in the main body of the text. Gene names and loci should be italic, and proteins should be roman. Virus nomenclature (and acronyms) should follow the guidelines of the International Committee on the Taxonomy of Viruses (ICTV). The current report is: van Regenmortel MHV, Fauquet CM, Bishop DHL (Eds) (2001) Virus Taxonomy: Seventh Report of the International Committee on Taxonomy Viruses. San Diego: Academic Press. Authors are also advised to check the ICTV website for the latest information. Biological nomenclature, as laid down in the International Code of Botanical Nomenclature, the International Code of Nomenclature of Bacteria, and the International Code of Zoological Nomenclature should be followed. [www.sp2000.org](http://www.sp2000.org) and [www.fishbase.org](http://www.fishbase.org) websites may be checked for nomenclature. Chemical nomenclature should follow the International Union of Pure and Applied Chemistry (IUPAC) definitive rules for nomenclature. No trade name should be used and Industrial products should be referred to by their chemical names (give ingredients in parentheses) at first mention. In the absence of a common name, use the full name or a defined abbreviation, in preference to a trade name.

5.2 Relevant details should be given of the crop, MATERIALS AND METHODS, including experimental design year of study (the study should not be more than 5 years old) and the techniques employed. Where the methods are well known, the citation of a standard work is sufficient. All modifications of procedures must be explained. Experimental materials and statistical models should be described clearly and fully. Calculations and the validity of deductions made from them should be checked and validated by a statistician. When possible, results of similar experiments should be pooled statistically. Do not report a number of similar experiments separately. Units of measurement, symbols and standard abbreviations should conform to those
recommended by the International Union of Biochemistry (IUB) and the International Union of Pure and Applied Chemistry (IUPAC). Metric measurements are preferred, and dosages should be expressed entirely in metric units (SI units). In exceptional circumstances, others may be used, provided they are consistent. Give the meaning of all symbols immediately after the equation in which they are first used. Equations should be numbered serially at the right-hand side in parentheses. In general only equations explicitly referred to in the text need be numbered. The use of fractional powers instead of root signs is recommended. Powers of e are often more conveniently denoted by exp. In chemical formulae, valence of ions should be given as, e.g. Ca^{2+}, not as Ca^{++}. Isotope numbers should precede the symbols, e.g. ^{18}\text{O}. The repeated writing of chemical formulae in the text is to be avoided where reasonably possible; instead, the name of the compound should be given in full. Exceptions may be made in case of a very long name occurring very frequently or in the case of a compound being described as the end product of a gravimetric determination (e.g. phosphate as P_{2}O_{5}).

5.3
The RESULTS AND DISCUSSION should preferably be combined to avoid repetition.

Results should be presented in **tabular** form and graphs when feasible **but not both**. The color figures and plates, are printed when information would be lost if reproduced in black and white. Mean result with the relevant standard errors should be presented rather than detailed data. The data should be so arranged that the tables would fit in the normal layout of the page. Self-explanatory tables should be typed on separate sheets and carry appropriate titles. The tabular matter should not exceed 20% of the text. Any abbreviation used in a table must be defined in that table. Paginate the tables in series with the text. All tables should be cited in the text. If an explanation is necessary, use an abbreviation in the body of the table (e.g. ND) and explain clearly in footnotes what the abbreviation means. References to footnotes in a table are specified by superscript numbers, independently for each table. Superscript letters are used to designate statistical significance. Use a lower case P to indicate probability values (i.e. p<0.05). In general, use numerals. When two numbers appear adjacent to each other, spell out the first. In a series using some numbers less than 10 and some more than 10 use numerals for. Do not begin a sentence with a numeral. Spell it out or rearrange the sentence. Abbreviate the terms hour (hr), minute (min.) and second (sec.) when used with a number in the text but spell them out when they are used alone. Do not use a hyphen to indicate inclusiveness (e.g. use 12 to 14 mg or wk 3 and 4 not 12-14 mg or wk 3-4). Use Arabic numerals with abbreviated units of measure: 2 g, 5 d, $4.00, 3\% and numerical designations in the text: exp 1, group 3, etc.

Author is required to submit high-resolution images, preferably with the initial submission but no later than revision stage. Electronic images (figures and schemes) must be at a minimum resolution of 600 d.p.i. for line drawings (black and white) and 300 d.p.i. for color or grayscale. Color figures must be supplied in CMYK not RGB colors. Please ensure that the prepared electronic image files print at a legible size (with lettering of at least 2 mm).
A number of different file formats are acceptable, including: PowerPoint (.ppt), Tagged Image File Format (.tif), Encapsulated PostScript (.eps), Joint Photographic Experts Group (.jpg), Graphics Interchange Format (.gif), Adobe Illustrator (.ai) (please save your files in Illustrator’s EPS format), Portable Network Graphics (.png), Microsoft Word (.doc), Rich Text Format (.rtf), and Excel (.xls) but not Portable Document Format (PDF).

Please ensure that the figure is clearly labeled with its figure number.

Original artwork: If you are unable to submit electronic artwork, please provide two sets of all figures as high-quality glossy prints at the size that they are to appear in print. One set should be unlabelled. The text should explain or elaborate on the tabular data, but data should not be repeated extensively within the text. Sufficient data, all with some index of variation attached, should be presented to allow the reader to interpret the results of the experiment. The discussion should interpret the results clearly and concisely in terms of biological mechanisms and should integrate literature results with the research findings to provide the reader with a broad base on which to accept or reject the hypotheses tested.

Results and references to tables and figures already described in the RESULTS section should not be repeated in the DISCUSSION section.

5.4 The DISCUSSION should relate to the limitations or advantage of the author's experiments in comparison with the work of others. Authors must obtain permission to reproduce any copyright material, and include an acknowledgement of the source in their Article. They should be aware that the unreferenced use of the published and unpublished ideas, writing or illustrations of others, or submission of a complete paper under a new authorship in a different or the same language, is plagiarism.

The Conclusion section should not be of more than one paragraph after the discussion and explain in general terms the implications of findings of this research on crop sciences. Abbreviations, acronyms, or citations should not be used here. Though some speculation is permitted, this section should also caution the reader against over extrapolation of results. For manuscripts with direct applications, this section will consist of an interpretive summary. If results have no implications, this should also be stated.

A recent issue of the journal should be consulted for the methods of citation of References in the text as well as at the end of the article. Reference citations in the text are typed as follows: Black (1971) or (Black 1971); Dickerson et al. (1974) or (Dickerson et al. 1974); Smith and Jones (1977) or (Smith and Jones 1977). Groups of references cited in a sentence in the text must be listed in chronological order as in the previous sentence. REFERENCES lists should be typed in alphabetical order.
The reference list should be first sorted alphabetically by author(s) and secondly chronologically.

**For journal articles**
Author(s). Year. Title. Journal title (full name and in italics) Volume number (bold): Page-page.<to be ended by period>

**For whole books**
Author(s), Year. Title. Number of pages, Edition, if any,(Ed.). Publisher address.

**For chapters from books**
Author(s), Year. Title. book title, Page-page.editors (editors), Publisher, address.

**For Symposium**

Authors should ensure that all references in the text appear at the end of the paper and vice-versa, and those names and dates at the two places correspond.

7. All articles are sent to referees for SCRUTINY and authors should meet criticism by improving the article.

8. Papers should be composed in MS Word, and double-spaced throughout (including references and tables). Article (including illustrations) should be sent after a careful check-up of typographical errors.


10. Proof-correction should be marked in PDF file only. All queries marked in the article should be answered. Proofs are supplied for a check-up of the correctness of type-setting and facts.

Excessive alteration may be charged to the authors. The proofs should be returned within 3 days.
11. Each contributor will receive one copy of the Journal free.
The Indian Journal of Animal Sciences

1. The Indian Journal of Animal Sciences is published every month.

1.2 MANUSCRIPT SUBMISSION, Article (in MS word) along with tables, figs (preferably single file) should be uploaded on-line to The Indian Journal of Animal Sciences at www.icar.org.in (Publication).

2.1 PAPERS ON ORIGINAL RESEARCH COMPLETED, not exceeding 3,500 words (approximately 10-12 pages), should be exclusive for the journal. They should present a connected picture of the investigation and should not be split into parts.

2.2 SHORT RESEARCH NOTES not more than 1,500 words (about 4-5 pages), which deals with (a) research results which are complete but do not warrant comprehensive treatment, and (b) descriptions of new material or improved techniques, with supporting data. Such notes require no headed sections. In short notes headings are also not given. Summary (not more than 80-100 words) is to be provided at the end of the text.

2.3 CRITICAL RESEARCH REVIEW pointing out lacunae in research and suggesting possible lines of future work.

2.4 Contributors are requested to ensure that the research papers or notes submitted for publications have a direct bearing on animal production or open up new grounds for productive research. Basic types of papers and notes which relate to investigations in a narrow specialized branch of a discipline may not form an appropriate material for this journal.

3. Author should check that articles has all the following sections and appear in that order:
- Title
- Name(s) of author(s)
- Complete postal address (es) of affiliations (place where work was conducted)
- Present address (es) of author(s) if applicable; Complete correspondence address including e-mail address to which the proofs should be sent (these are given as footnote on first page).
- Abstract
- Keywords (indexing terms), normally 3 – 6 items.
- Introduction (without heading)
- Material and methods
- Results and discussion
- Conclusion (without heading)
- Acknowledgements
- References
Effective Management of E-Resources in Research Libraries

Tables
Figure captions
Figures (separate file(s))

Note: Titles and subtitles should not be run within the text. They should be typed on a separate line, without indentation. Use lower-case letter type.

The Council reserves the privilege of returning to the author for revision of accepted manuscripts and illustrations which are not in the proper form given in this guide.

3.1 The manuscript of the paper starts with the title. It should be short, specific and informative. It should be phrased to identify the content of the article must include the nature of the study, and technical approach, which is essential for key-word indexing and information retrieval. Title should be as brief as possible, and include the species involved in the research when applicable. Abbreviations are not permitted in the title.

3.2 In addition, a SHORT TITLE not exceeding 50 letters should be provided separately for running headlines.

3.3 The BYLINE should contain, in addition to the names and initials of the authors, the place where research was conducted. Naming an author on a paper implies that the person named is aware of the research reported and agrees with and accepts responsibility for any results or conclusions reported. The address of the institution should include the name of the institution, city, country and PIN code. Present address should be given as a footnote. When a paper has several authors from different institutions, key the author to the address with superscript Arabic numerals and present the additional addresses as footnotes at the bottom of the page, e.g. Present address: Give designation, present address of all the authors and email of corresponding author.

1 Designation, Division of... (1 email of first author); 2 Designation, Division of...( if second author is from different division). 3 Designations, Division of... (if the author is from different place).

4. The ABSTRACT, written in complete sentences, should not have more than 250 words. It should contain a very brief account of the materials, methods, results, discussion and conclusion, so that the reader need not refer to the whole article except for details. It should not have references to literature, illustrations and tables. The abstract should summarize pertinent results in a brief but understandable form. The abstract should start with a clear statement of the objectives of the experiment and must conclude with one or two sentences that highlight important conclusions. "An abstract is defined as an abbreviated accurate representation of the contents of a document, preferably prepared by its author(s) for publication with it. Such abstracts are also useful in access [abstracting] publications and machine-readable databases".
4.1 Key-words: At the end of the abstract, list up to six key words that best describe the nature of the research. Because major words in the title are not used in the subject index, appropriate words from the title (or synonyms) should be listed as key words.

5. Major headings are MATERIALS AND METHODS, RESULTS AND DISCUSSION, and REFERENCES. Major headings of review papers or papers from symposia may deviate from this standard format; however, all papers must contain an abstract, key words, and an introduction. Abbreviations should be avoided in headings.

5.1 The INTRODUCTORY part should be brief and limited to the statement of the importance of the study, problem or the aim of the experiment. And may briefly justify the research and specify the hypotheses to be tested. The review of literature should be pertinent to the problem. Objective of the study should be discussed in view of latest references. Authorities for the Latin binomial of every organism are not used in the title or summary, and only on the first mention in the main body of the text. Gene names and loci should be italic, and proteins should be roman. Virus nomenclature (and acronyms) should follow the guidelines of the International Committee on the Taxonomy of Viruses (ICTV). The current report is: van Regenmortel MHV, Fauquet CM, Bishop DHL (Eds) (2001) Virus Taxonomy: Seventh Report of the International Committee on Taxonomy Viruses. San Diego: Academic Press. Authors are also advised to check the ICTV website for the latest information. Biological nomenclature, as laid down in the International Code of Botanical Nomenclature, the International Code of Nomenclature of Bacteria, and the International Code of Zoological Nomenclature should be followed. www.sp2000.org and www.fishbase.org websites may be checked for nomenclature. Chemical nomenclature should follow the International Union of Pure and Applied Chemistry (IUPAC) definitive rules for nomenclature. No trade name should be used and Industrial products should be referred to by their chemical names (give ingredients in parentheses) at first mention. In the absence of a common name, use the full name or a defined abbreviation, in preference to a trade name. In case of anatomy and surgery articles please follow Nomina Anatomica, Nomina Histologica, Nomina Embryologica, Nomina Anatomica Veterinaria, and Nomina Anatomica cvium for nomenclature.

5.2 Relevant details should be given of the animal, MATERIALS AND METHODS, including experimental design and the techniques employed. Where the methods are well known, the citation of a standard work is sufficient. All modifications of procedures must be explained. Experimental materials and statistical models should be described clearly and fully. Calculations and the validity of deductions made from them should be checked and validated by a statistician. When possible, results of similar experiments should be pooled statistically. Do not report a number of similar experiments separately. Units of measurement, symbols and standard abbreviations should conform to those recommended by the International Union of
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Biochemistry (IUB) and the International Union of Pure and Applied Chemistry (IUPAC). Metric measurements are preferred, and dosages should be expressed entirely in metric units (SI units). In exceptional circumstances, others may be used, provided they are consistent. Give the meaning of all symbols immediately after the equation in which they are first used. Equations should be numbered serially at the right-hand side in parentheses. In general only equations explicitly referred to in the text need be numbered. The use of fractional powers instead of root signs is recommended. Powers of e are often more conveniently denoted by exp. In chemical formulae, valence of ions should be given as, e.g. Ca$^{2+}$, not as Ca$^{++}$. Isotope numbers should precede the symbols, e.g. $^{18}$O. The repeated writing of chemical formulae in the text is to be avoided where reasonably possible; instead, the name of the compound should be given in full. Exceptions may be made in case of a very long name occurring very frequently or in the case of a compound being described as the end product of a gravimetric determination (e.g. phosphate as $P_2O_5$).

Authors must certify that animals were cared for under guidelines comparable to those laid down by the Institutional Animal Ethics Committee.

5.3
The RESULTS AND DISCUSSION should preferably be combined to avoid repetition.

Results should be presented in tabular form and graphs when feasible but not both. The color figures and plates are printed when information would be lost if reproduced in black and white. Mean result with the relevant standard errors should be presented rather than detailed data. The data should be so arranged that the tables would fit in the normal layout of the page. Self-explanatory tables should be typed on separate sheets and carry appropriate titles. The tabular matter should not exceed 20% of the text. Any abbreviation used in a table must be defined in that table. Paginate the tables in series with the text. All tables should be cited in the text. If an explanation is necessary, use an abbreviation in the body of the table (e.g. ND) and explain clearly in footnotes what the abbreviation means. References to footnotes in a table are specified by superscript numbers, independently for each table. Superscript letters are used to designate statistical significance. Use a lower case p to indicate probability values (i.e. p<0.05). In general, use numerals. When two numbers appear adjacent to each other, spell out the first (i.e. ten 2-day old chicks rather than 10 2-d old chicks). In a series using some numbers less than 10 and some more than 10 use numerals for all (i.e. 2 Holsteins, 6 Charolais and 15 Friesians). Do not begin a sentence with a numeral. Spell it out or rearrange the sentence. Abbreviate the terms hour (h), minute (min) and second (sec) when used with a number in the text but spell them out when they are used alone. Do not use a hyphen to indicate inclusiveness (e.g. use 12 to 14 mg or wk 3 and 4 not 12-14 mg or wk 3-4). Use Arabic numerals with abbreviated units of measure: 2 g, 5 d, $4.00, 3% and numerical designations in the text: exp 1, group 3, etc.

Author is required to submit high-resolution images, preferably with the initial submission but no later than revision stage. Electronic images (figures and
schemes) must be at a minimum resolution of 600 d.p.i. for line drawings (black and white) and 300 d.p.i. for color or grayscale. Color figures must be supplied in CMYK not RGB colors. Please ensure that the prepared electronic image files print at a legible size (with lettering of at least 2 mm).

A number of different file formats are acceptable, including: PowerPoint (.ppt), Tagged Image File Format (.tif), Encapsulated PostScript (.eps), Joint Photographic Experts Group (.jpg), Graphics Interchange Format (.gif), Adobe Illustrator (.ai) (please save your files in Illustrator’s EPS format), Portable Network Graphics (.png), Microsoft Word (.doc), Rich Text Format (.rtf), and Excel (.xls) but not Portable Document Format (PDF).

Please ensure that the figure is clearly labeled with its figure number.

Original artwork: If you are unable to submit electronic artwork, please provide two sets of all figures as high-quality glossy prints at the size that they are to appear in print. One set should be unlabelled. The text should explain or elaborate on the tabular data, but data should not be repeated extensively within the text. Sufficient data, all with some index of variation attached, should be presented to allow the reader to interpret the results of the experiment. The discussion should interpret the results clearly and concisely in terms of biological mechanisms and should integrate literature results with the research findings to provide the reader with a broad base on which to accept or reject the hypotheses tested.

Results and references to tables and figures already described in the RESULTS section should not be repeated in the DISCUSSION section.

5.4 The DISCUSSION should relate to the limitations or advantage of the author’s experiments in comparison with the work of others. Authors must obtain permission to reproduce any copyright material, and include an acknowledgement of the source in their Article. They should be aware that the unreferenced use of the published and unpublished ideas, writing or illustrations of others, or submission of a complete paper under a new authorship in a different or the same language, is plagiarism.

The Conclusion section should not be of more than one paragraph after the discussion and explain in general terms the implications of findings of this research on animal husbandry. Abbreviations, acronyms, or citations should not be used here.

Though some speculation is permitted, this section should also caution the reader against over extrapolation of results. For manuscripts with direct applications, this section will consist of an interpretive summary. If results have no implications, this should also be stated.

5.5 A recent issue of the journal should be consulted for the methods of citation of References in the text as well as at the end of the article. Reference citations in the text are typed as follows: Black (1971) or (Black 1971); Dickerson et al. (1974) or
(Dickerson et al. 1974); Smith an Jones (1977) or (Smith and Jones 1977). Groups of references cited in a sentence in the text must be listed in chronological order as in the previous sentence. REFERENCES lists should be typed in alphabetical order. The reference list should be first sorted alphabetically by author(s) and secondly chronologically.

For journal articles
Author(s). year. Title. Journal title (full name and in italics) volume number (bold): page-page.<to be ended by period>


For whole books
Author(s), year. Title .(Ed.).Edition if any, Number of pages. Publisher, address.

For chapters from books
Author(s), year. Title. Book title, editors (editors), Publisher, address. Page-page.

For Symposium
Authors should ensure that all references in the text appear at the end of the paper and vice-versa, and those names and dates at the two places correspond.

6. All articles are sent to referees for SCRUTINY and authors should meet criticism by improving the article.

7. Papers should be composed in MS word, and double-spaced throughout (including references and tables). Article (including illustrations) should be sent after a careful check-up of typographical errors.

8. Authors are requested to consult The Council of Biology Editors Style Manual. 7th edn. American Institute of Biological Sciences, Washington DC.

9. Proof-correction should be marked in the margin. All queries marked in the article should be answered. Proofs are supplied for a check-up of the
correctness of type-setting and facts. Excessive alteration may be charged to the authors. The proofs should be returned within 3 days.

10. Each contributor will receive one copy of the Journal free.
GUIDELINES TO REVIEWERS

Duties of a reviewer

- A reviewer's duties are to assist the editor in maintaining the quality of the papers appearing in the journal and to help the authors by constructive criticism of their efforts.
- Reviewers are selected in recognition of their authoritative scientific work in the fields covered by a journal.
- Each paper submitted for publication is reviewed by two independent reviewers. If their reports disagree with regard to the suitability of the paper for publication, advice of a third reviewer is sought.
- Reviewers are expected to respond to the editor's request for advice within a limited period of time, and its length (15 days) is clearly stated by the editor. If a reviewer finds himself unable to attend to a manuscript within this period, he is asked to return the script immediately without comments in order to allow the editor to select another reviewer without further delay.
- A reviewer's report is meant to guide the editor, who usually transmits it to the author in order to help him improve his paper or understand the reasons for rejection.
- Although the editor in most cases transmits the comments of a reviewer verbatim to the author, yet he ensures that the name of the reviewer remains confidential.
- Although the reviewing system, helps to maintain and improve the quality of a journal, there are certain pitfalls, which an editor is always aware hence never uses the reviewers' comments blindly.
- Authors are asked to follow the suggestions made by the reviewer, or otherwise state to the editor their reasons for not doing so.

Identifying and selecting appropriate reviewers

- Editor strives to establish and maintain a database of suitably qualified peer reviewers. The qualities of a good reviewer are
  - Expertise in one or more areas of paper
  - Objectivity
  - No conflicts of interest
  - Good judgment
  - Able to think clearly and logically
  - Able to write a good critique
  - Accurate
  - Readable
  - Helpful to editors and authors
o Reliable in returning reviews
o Able to do the review in the allotted time-frame

• A database of suitably qualified peer reviewers has been established and maintained.
• Editor objectively monitors the performance of peer reviewers and records the quality and timeliness of their reviews. Editor generally ignores rude, defamatory peer review. Peer reviewers who are not found up to the mark are not selected again.
• Editor encourages peer reviewers to decline reviewing invitations if under any circumstances they might not be able to provide fair peer review.
• If authors request that an individual (or individuals) does not peer review their paper objectively, editors uses this information while selecting the peer reviewer.
• Editor may choose to use peer reviewers suggested by authors, but authors’ suggestions are not binding.
• Editor requests the peer reviewers who delegate peer review to members of their staff to inform the editor when this occurs.

**Fair peer-review process is aimed to minimize bias.**

• The peer-review system that best suits a cross-discipline journal has been selected.
• Peer review system is non-blinded and has multiple reviewers. Research articles, short notes and review articles are always peer reviewed.
• Consistent standards are applied in peer-review processes.
• If discussions between an author, editor, and peer reviewer have taken place in confidence it remains in confidence unless explicit consent has been given by all parties or there are exceptional circumstances (for example, when they might help substantiate claims of intellectual property theft during peer review).
• Editors or board members are never involved in editorial decisions about their own work. Journals do not consider original research papers and reviews from editors or employees of the journal.
• Journal editors, members of editorial boards and other editorial staff are requested to withdraw from discussions about submissions where any circumstances might prevent those offering unbiased editorial decisions.

**Authors have a right to appeal editorial decisions.**

• Authors may appeal peer review decisions.
• Editor mediates all exchanges between authors and peer reviewers during the peer-review process (i.e. prior to publication).
• If agreement cannot be reached, editor invites comments from additional peer reviewer(s).
The editor’s decision in consultation with the editorial board chairman/member (subject matter specialist) following such an appeal is final.

**Editorial independence**

Editorial independence should be respected. Decisions by editor on publication of an individual item submitted to a journal should not be influenced by pressure.

**Checklists for reviewers**

- The reviewer must consider the scientific focus, readership, standards and policies of the journal as he/she reviews the paper. The journal needs scientific expertise, and not the editorial assistance. Journal relies on its reviewers to evaluate the technical quality and importance of the content of manuscript.
- Reviewers’ comments that focus completely on minor editorial problems (typographical errors, misspellings) and do not comment on the knowledge content in the paper, have limited value as they do not advise the editor on the importance and validity of the science and do not help the editor to make an informed decision concerning publication.
- Reviewer represents the journal, and is not a friend of the author. It is unethical on part of the reviewer to allow an unsound paper to pass uncontested into the peer reviewed literature, where it will misguide a novice reader who will read the manuscript (or may be only abstract) superficially and simply accept the faulty conclusions at face value. The peer review process is accomplished by experts and they provide a scientific stamp of approval to the paper and its contents. The reviewer therefore must support work of high quality and reject the faulty articles.

Please consider the following points into account while reviewing articles.

- The problem is genuine or not
- Importance of work.
- Title is appropriate and reflects the content fully.
- The abstract describes the content accurately.
- The objectives are clearly stated.
- Materials, methods and experimental design are correctly applied for the problem.
- The data is genuine or not.
- Correct statistical analysis has been used or not.
- The discussion is presented clearly, strongly and convincingly.
- The article is well presented or not.
• Highlight the irrelevant sections of the article.
• The field is adequately covered or not? Also highlight missing relevant areas that should have been included.
• The bibliographic and other authoritative sources strongly support the article or not.
• The interpretation of the information is new or not.
• The interpretation of result is based on scientific reasoning or not.
• The conclusions drawn in the paper are valid or not.
• The information is factually correct or not.
• The discussion fully supported the conclusions or not.
• The illustrations/graphs/tables support the results and are able to add impact to the article.
• The article contributes significantly to knowledge.
• The reviewer should also comment on
  o The length of the paper
  o The writing quality
  o The clarity, accuracy, and completeness of the figures and tables
  o The accuracy and adequacy of the introduction which frames the area of the research, of the discussions of prior and related work, and of the citations to the literature.
• Some editorial comments are appropriate
  • Should identify sentences or paragraphs where the wording is sufficiently erroneous or ambiguous that the science is unclear.
  • Should also point out language errors that result in faulty scientific statements.
  • Should point out errors in referencing.
  • A note warning that a manuscript requires major editorial assistance or is very carelessly prepared and cannot be reviewed, is always very important.
  • Reviewers should not waste inordinate amounts of time correcting minor problems with spelling, grammar, or punctuation; instead suggest correcting them.

Writing the comments

The reviewer should keep in mind the following instructions while writing the comments-

• These must be clear, concise, and accurate.
• Although their primary purpose is to advise the editor, comments to the author frequently are of value in guiding revision of the paper for the same or a different journal and in suggesting ways to improve the project by the inclusion of additional data or experiments.
• Comments to the author may be very brief, especially in the case of an excellent, well prepared paper.
• They may be extensive if the reviewer feels the paper has valuable elements but requires extensive revisions to present the findings effectively.
• Comments and recommendations should be clear and should be supported with citations to specific areas in the text of the paper.
• When the reviewer’s criticisms rely on or are supported by data in the literature, the reviewer should provide citations to the relevant papers.
• A good review should help the authors to think more clearly about their work and its design, execution, presentation, and significance.
• Some are not transmitted, depriving the author of any beneficial insights the reviewer might have had.
• Rudeness, personal criticism and locker room humor are never appropriate. Even the most serious scientific criticisms can be worded and presented in such a way as to be constructive and collegial.
• Reviewers should write critiques using a style and tone that they would want to see in the reviews that they or their trainees receive.
• Reviewers should remember that they are setting the standards of behavior and collegiality for their field, as well as the standards of science.
• The reviewer should always work to provide reviews that meet high standards of ethics as well as high standards of science.

Sanctity of Manuscript -- Points to remember

• Manuscripts under review are confidential documents.
• These are unpublished data and ideas, which must be kept confidential.
• Reviewer cannot share the paper or its contents with his colleagues.
• Manuscript should be kept in a secure place, where it is not readily accessible to the curious or unscrupulous. Reviewer cannot use the information in the paper in his own research or cite it in his publications. This can raise serious ethical issues if the work is used to benefit reviewer’s research.
• The outcome and content of the review as well as the paper are confidential.
• Lapses in the confidentiality undermine the review process, betray the trust of the authors and the editors, and can create serious problems for everyone involved in the review process.
• Can you pass the paper on to someone else to review? The permission of the editor is granted in cover letter; if not, the editor should be contacted in advance
  • The reviewer initially contacted should always let the editor know that the manuscript has been given to another reviewer because it is
    • Important for the records of the journal
    • The information may be required to configure web portal for the new reviewer
• Actual reviewer receives credit for his/her efforts
• Adds the new reviewers to the journal’s database, facilitating future invitations to review papers
• Increases reviewers’ visibility -- journals list and thank reviewers in journal and on journal and websites

Reviewer should avoid

• Misrepresenting facts in a review,
• Unreasonably delaying the review process,
• Unfairly criticizing a competitor’s work,
• Breaching the confidentiality of the review.
• Proposing changes that appear to support the reviewer’s own work or hypotheses.
• Making use of confidential information to achieve personal or professional gain.
• Using ideas or text from a manuscript under review.
• Including personal criticism of the author(s).
• Failing to disclose a conflict of interest that would have excluded the reviewer from the process.
Reviewer guidelines for
Online article submission

Directorate of Information and Publications of Agriculture
KRISHI ANUSANDHAN BHAVAN-I
Indian Council of Agricultural Research (ICAR)
Pusa New Delhi 110 012
1. About the Journal
2. Scope and Criteria for consideration
3. Guidelines to Authors/Reviewers
4. The reviewing system
   4.1 Reviewer
   4.2 Reviewer Registration
   4.3 Go to Login
   4.4 Change Password
   4.5 Reviewers Interest:
   4.6 Online reviewing process
      4.6.1 Article review request
      4.6.2 Reviewer Account
      4.6.3 Viewing and Changing your Profile
      4.6.4 Reviewer Page
      4.6.5 Reviewing Steps
         4.6.5.1 Reviewer guidelines
         4.6.5.2 Checking of submission Metadata
         4.6.5.3 Review Schedule
         4.6.5.4 Reviewer sends response
         4.6.5.5 Click on Review form
         4.6.5.6 Download the manuscript
         4.6.5.7 Select recommendation
         4.6.5.8 Submit review to editor
Annexure I. Scope and criteria for consideration of article
Annexure II Guidelines to authors
Annexure III. Guidelines to reviewers
Reviewer Guide

Peer review system is adopted by the research journals to have expert opinion on the scientific concept of the submitted article, technical checking of materials and methods and approval of interpretation and conclusions. They help editor in making editorial decisions and also guide the author in improving the manuscript. The reviewers assess the article in view of scientific basis of the article as well as journal’s coverage area, its in-house style of manuscript presentation etc. The coverage area and Guidelines to reviewers for assessing and submitting the review report to editor are given in Annexure I and Annexure II.

ABOUT THE JOURNAL

1. About the Journal

*The Indian Journal of Agricultural Sciences*

This journal is devoted to experimental agriculture and abstracted by all the major abstracting services. It includes articles on crop science, plant breeding and genetics, cytology, agronomy, soil science, horticulture, water use, microbiology, plant diseases and pest, agricultural engineering, agricultural economics and agricultural statistics with emphasis on original articles, from India and countries having similar agricultural conditions.

*The Indian Journal of Animal Sciences*

This journal caters to a wide clientele comprising veterinarians, researchers and students. Articles are included on animal breeding and genetics, immunology, biotechnology, epidemiology, medicine and pharmacology, anatomy and histology, surgery, pathology, physiology, nutrition, milk, meat and other animal products, housing and fisheries from India and internationally. This journal is abstracted by all the major abstracting services.

2. Scope and Criteria for consideration

The details of type of articles included in the journal or the coverage area of the journal are given in scope and criteria for consideration (Annexure I).

3. Guidelines to Authors and reviewers

Author should consult Guidelines to authors (Annexure II) before submitting the article to the journal. It gives information on in-house style of text, table, figure, reference presentation in the Journal. Guidelines to reviewers are presented in (Annexure III)
4. The reviewing system

The number of scientific articles published each year continues to grow, hence the peer-review process, together with the merit of the editorial board, is cited as the primary influence on a journal’s reputation, impact factor, and standing in the field. Reviewers do this difficult job without honorarium as they are good citizens of scientific community.

The *ICAR Journals* relies on expert and objective review by knowledgeable researchers to ensure the quality of the papers it publishes. The guidelines to reviewers are given in Annexure III.

4.1 Reviewer

The Reviewer is selected by the Editor to review a submission. Reviewers are requested to submit reviews to the journal’s web site i.e [www.icar.org.in](http://www.icar.org.in) and are able to upload attachments for the use of the Editor and Author. Reviewers may be rated by Editors (1-5), again depending on the time taken and their nature of devotion to the Journal. The reviewer may visit the journal site to have a firsthand knowledge of the journal.
4.2 Reviewer Registration

A Reviewer has facility to join with the Journal to review the manuscript with the permission of Editor and also can be registered directly as Reviewer on the web portal. The editor can also create the profile of a reviewer and send the welcome email to reviewer informing him/her the username and password.

Note: Reviewers are requested to submit their all details including Subject Specialization (Major and Minor) 4-5 key words of area of specialization along with their emails.

- A new user has to register first.
Go to Registration

Make sure before going to click on register, you have to choose the following options to the journal and please tick the column-

- register as Reader : able to Read
- register as Author : able to submit
- register as Reviewer : able to Review
4.3 Go to Login

4.4 Change Password

The password can be changed on clicking change password under User icon by entering current password and selecting a new password.

Resetting Password

Resetting password is a simple process if the user remembers it and just wants to change it to something else: log in, and from the User Home page click the Change Password link. User has to enter the current password, and then the new password twice.

Resetting the password if one has forgotten it, is still a simple process, but it takes a few more steps:
1. Click the Log In link on the topmost navigation bar.
2. Click the Forgot Your Password? Link.
3. Enter the email address in the box provided, and click the Reset Password link. This will send a confirmation email to your email address (if one does not see an email in the Inbox, check your spam folder) (Please check the spam folder).
4. The email will include a link to reset the password: click it, and return to the journal web site.
5. On returning to the journal web site, user should be notified that an email containing a new password has been sent to your email address. Check for that second email, and use the new credentials to log into the site.
6. After successfully logging in, user will be used to immediately change the password. Enter the emailed password first (Current Password), and then a new, secret password twice (New Password, Repeat New Password).

4.5 Reviewers Interest: Reviewer’s can update their profile showing the interest area to the Editor of the Journal.

4.6 Online reviewing process

Reviewer Assignment: A reviewer is selected by editor and request is sent to him/her for reviewing the submitted manuscript.

4.6.1 Article review request

Reviewer receives the following email from editor.
4.6.2 Reviewer Account

The reviewer can also check his account to see any awaiting review assignment.

A Reviewer can view the following information, when a reviewer receives an email regarding evaluation of manuscript to the Journal.

- Title
- Short communication
- Review Article
- Review Schedule
- Review Steps

4.6.3 Viewing and Changing your Profile

To view and edit profile, log in and click the Edit My Profile link from the User Home page. Alternatively, once logged in, one can always click the My Profile link from the User Navigation block on the sidebar. From here, one can update the email address, change the personal information, or change password.

Updating of profile: Reviewer has the facility to update their profile as area of specialization, designation, department, year of experience, reviewing area interest etc.
When Reviewer clicks on the URL provided, he can view the submission to be reviewed.

4.6.4 Reviewer Page

A Reviewer can view the following information, when he receives an article for evaluation:

- Title
- Journal section
- Abstract
- Submission metadata
- Review Schedule
- Review Steps
4.6.5 Reviewing Steps

4.6.5.1 Reviewer guidelines: Reviewers must read the guidelines before any action.

4.6.5.2 Checking of submission Metadata: Submission metadata should be checked by Reviewer to ensure that information provided by Editor is complete in all respect. If, reviewer finds any missing, can ask to editor to send the informations.

4.6.5.3 Review Schedule: Reviewer must follow the time schedule available on the page. If due to some reason cannot do the needful in stipulated time must inform editor the same.

4.6.5.4 Reviewer sends response by clicking on will do the Review OR unable to do the Review to Editor after reading the abstract. Full paper will be visible when Reviewer sends Request to Editor that he will do the assignment.

Editor receives following email as per the response of the reviewer.
4.6.5.5 Click on Review form to see the comment sheet.

4.6.5.6 Download the manuscript, make changes in track change mode, and again upload it (arrow).

4.6.5.7 To select recommendation choose one from drop down option (encircled) — Accept, Revisions Required, Resubmit for Review, Resubmit Elsewhere, Decline Submission, See Comments.
4.6.5.8 Click on **Submit review to editor** to send your review to editor — it leads to a prepared email to the Section Editor, and makes your recommendation, saved Review (which is now locked) and any uploaded files available to the Editor.

Reviewer also has the option, in addition to entering a review, of uploading files for the Editor and/or the Author to see. These files may be an annotated version of the submission or some relevant data or other materials that will assist Editor and/or Author. It will be at the Editor’s discretion whether these files are shown to the Author, but Reviewer can certainly comment on this in the Review.

Editor receives the following email from reviewer after completion of review.

Author screen will also change once the comments are submitted by reviewer but he will be able to see only after the editor completes his input puts the review for author’s perusal.
If reviewers want to see the articles of the Journal visit SEARCH:

- Search terms are case-insensitive
- Common words are ignored
- By default only articles containing all terms in the query are returned (i.e., AND is implied)
- Combine multiple words with OR to find articles containing either term; e.g., education OR research
- Use parentheses to create more complex queries; e.g., archive ((journal OR conference) NOT theses)
- Search for an exact phrase by putting it in quotes; e.g., "open access publishing"
- Exclude a word by prefixing it with - or NOT; e.g. online -politics or online NOT politics
- Use * in a term as a wildcard to match any sequence of characters; e.g., soci* morality would match documents containing "sociological" or "societal"
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**Browse by Title Index:**

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<th>TITLE</th>
<th>DETAILS</th>
<th>PDF</th>
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<td>A comparative study on polychromatole in electrophoresis of serum proteins from liver during normal and subachromatous cycle of Acanthocheilosoma.</td>
<td>DETAILS</td>
<td>PDF</td>
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<td>A comparison between the effect of probiotics and enzymes on the performance of broiler chickens.</td>
<td>ABSTRACT</td>
<td>PDF</td>
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<tr>
<td>A review of the status of corals and coral reefs of India.</td>
<td>DETAILS</td>
<td>PDF</td>
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<tr>
<td>Activity of extracts of Trigonum arvensium against mycobacterium tuberculosis.</td>
<td>ABSTRACT</td>
<td>PDF</td>
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SCOPE AND CRITERIA FOR CONSIDERATION OF ARTICLE

The Indian Journal of Agricultural Sciences

The Indian Journal of Agricultural Sciences publishes papers concerned with the advancement of agriculture throughout the world. It publishes original scientific work related to strategic and applied studies in all aspects of agricultural science and exploited species, as well as reviews of scientific topics of current agricultural relevance.

Specific topics of interest include (but are not confined to): genetic resources, all aspects of crop improvement, crop production, crop protection, physiology, modeling of crop systems, the scientific underpinning of agronomy, engineering solutions, decision support systems, land use, environmental impacts of agriculture and forestry, impacts of climate change, rural biodiversity, experimental design and statistical analysis, the application of new analytical and study methods (including molecular studies) and agricultural economics.

The journal also publishes book reviews. Articles are accepted on the following broad disciplines:

- Agric. Engineering & Technology
- Agric. Social & Economic Sci.
- Agronomy
- Biometry
- Biosciences
- Cytology
- Ecology
- Environmental Sciences
- Fertilization
- Forestry
- Genetics
- Horticulture
- Microbiology
- Pest
- Weed Control etc.
- Molecular Biology
- Plant Pathology
- Plant Breeding
- Physiology and Biochemistry
- Soil Sciences
- Special Cultivation Technology
- Stress Breeding
- Agric. extension
- Cell Biology

The Indian Journal of Animal Sciences

Articles published in The Indian Journal of Animal Sciences encompass a broad range of research topics in animal health and production related to cattle, buffalo, sheep, goat, camel, equines, pig, rabbit, yak, mithun, poultry and fisheries. Studies involving wildlife species and laboratory animal species that address fundamental questions about their biology will also be considered for publication. All manuscripts must present some new development and must be original, timely, significant and scientifically excellent. Papers will be rejected if standards of care of, or procedures performed on animals are not up to those expected of humane veterinary scientists. At a minimum,
standards must meet the International Guiding Principles for Biomedical Research involving Animals, as issued by the Council for International Organizations of Medical Sciences. (C.I.O.M.S., c/o WHO, CH 1211 Geneva 27, Switzerland). Articles reporting new animal disease must follow GOI directive as given in detail in Guidelines to Authors. The readership of the journal is global. *The Indian Journal of Animal Sciences* is published both online and in print mode. *The Indian Journal of Animal Sciences* includes articles on following disciplines:

I. Animal Health

1. **Epidemiology:** Research findings and methodological developments in the field of epidemiological research; epidemiology of both communicable and non-communicable diseases.

2. **Immunology:** Broad range of experimental studies in molecular and cellular immunology: vaccine — molecular biology, synthetic peptides, recombinant antigens, vectors, new immunogens, adjuvants, immunity, immunology of protection, fertility, academic research, developmental applications, field trials, epidemiology, efficacy, cost/benefit (biology of cells and mechanisms of the immune system, immunochemistry, immunodeficiency’s, immunodiagnostics, immunogenetics, immunopathology, immunology of infectious disease and tumors, immunoprophylaxis to infectious disease including vaccine development and delivery, immunological aspects of pregnancy including passive immunity, reagent development including development of antibodies to new differentiation antigens and cytokines and gene isolation, interaction of the immune system with other tissues including autoimmunity, transplantation immunology.

3. **Veterinary Microbiology** is concerned with microbial (bacterial, fungal, viral) diseases of domesticated animals (livestock and poultry). In addition, Microbial diseases of wild animals living in captivity, or as members of the feral fauna will also be considered if the infections are of interest because of their interrelation with humans (zoonoses) and/or domestic animals, or for comparative or other scientific reasons. Studies of antimicrobial resistance are also included. Original research papers of high quality and novelty on aspects of control, diagnosis, epidemiology, host response, immunology, molecular biology, pathogenesis, prevention, and treatment of microbial diseases of animals are published. Drug trial papers are accepted if they have general application or significance. Papers on the identification of microorganisms are also accepted, but detailed taxonomic studies do not fall within the scope of the journal. Case reports are usually not accepted, unless these have general application or contain novel aspects. Papers of geographically limited interest, which repeat what had been established elsewhere, will not be accepted.

4. **Parasitology:** Original papers, from all geographical areas and covering all parasitological disciplines, including structure, immunology, cell biology, biochemistry, molecular biology, and systematic are considered. Reviews on recent
developments may be submitted. Papers of the highest quality dealing with all aspects of disease prevention, pathology, treatment, epidemiology, and control of parasites in all domesticated animals fall within the scope of the journal.

Parasitological studies on laboratory animals are considered only if they provide a reasonably close model of a disease of domestic animals. Papers relating to wildlife species where they may act as disease reservoirs to domestic animals, or as a zoonotic reservoir, are also considered. Papers dealing only with the taxonomy of parasites are not accepted.

5. **Veterinary public health:** Articles included are on — infection prevention and control, microbiology, infectious diseases, public health and the application of healthcare epidemiology to the evaluation of health outcomes. The information must advance the scientific knowledge of the sources, transmission, prevention and control of zoonoses. Articles that incorporate recent data into new methods, applications, or approaches (e.g. statistical modeling) which enhance public health are also considered.

6. **Medicine:** Epidemiology of domestic and wild animals, costs of epidemic and endemic diseases of animals, the latest methods in veterinary epidemiology, disease control or eradication, relationships between veterinary medicine and animal production, and development of new techniques in diagnosing, recording, evaluating and controlling diseases in animal populations.

7. **Pharmacology and toxicology:** Basic and clinical aspects of veterinary pharmacology and toxicology; toxic effects observed at relevant exposures, which have direct impact on safety evaluation and risk assessment — articles on these aspects are included in the journal.

8. **Surgery and radiology:** Articles having up-to-date coverage of surgical and anesthetic management of animals, and addressing significant problems in veterinary surgery with relevant observations are considered.

9. **Pathology:** Original articles presenting findings on all aspects of general, anatomic and molecular pathology, coverage of the most recent developments across the entire field of pathology and reviews focusing on recent progress in pathology, are included.

10. **Avian diseases:** Articles on etiology, pathogenesis, diagnosis, and control relevant to avian diseases are considered.

11. **Reproduction:** Original research and timely reviews on topics relating to reproduction and fertility in animals are included — both fundamental research and applied studies, including management practices that increase our understanding of the biology and manipulation of reproduction; animal physiology and biochemistry of reproduction; animal reproductive biology and biotechnology, including basic and applied studies in cryobiology of gametes and embryos, conservation biology, and assisted reproduction of domestic, wild, avian species and captive and endangered species including zoo animals.

12. **Biochemistry & biotechnology:** Articles of original research in the fields of biochemistry and biotechnology and papers presenting information of a multidisciplinary nature are particularly welcome.
13. **Anatomy and histology:** Publishes original papers, invited review articles and book reviews with main focus on understanding development, evolution and function through a broad range of anatomical approaches. Articles on bioinformatics and other topics clarifying functional and anatomical understanding will also be considered. Priority will be given to experimental studies, to contributions based on molecular and cell biology, and on the application of modern functional imaging techniques. Studies that are essentially descriptive anatomy will only be published if the Editor considers that these are of functional significance. Also include original papers covering a link between anatomy and molecular biology, cell biology, reproductive biology, immunobiology, developmental biology, neurobiology, embryology as well as neuroanatomy, neuroimmunology, clinical anatomy, comparative anatomy, modern imaging techniques.

### II. Animal Production

1. **Genetics and Molecular tools:** Areas covered in the journal are genetic resources; genetics and genomics, immunogenetics, molecular genetics and functional genomics of economically important and domesticated animals; evolutionary and comparative genomics, including phylogenomics; study of variability at gene and protein levels, mapping of genes, traits and QTLs, associations between genes and traits, genetic diversity, and characterization of gene expression and control; animal genetic resources; computational biology, bioinformatics and biostatistics, complex gene studies, population genomics, association studies, structural variation, and gene-environment interactions; genomic approaches to understanding the mechanism of disease pathogenesis and its relationship to genetic factors; medical genomics, application of genomic techniques in model organisms.

2. **Breeding:** Articles are included on — crossbreeding, its impact on economic traits of animals; progress in animal production and quantitative genetics.

3. **Nutrition:** Areas covered in the journal are — nutritive value of feeds (e.g., assessment, improvement); methods of conserving and processing feeds that affect their nutritional value; rumen manipulation; agronomic and climatic factors influencing the nutritive value of feeds; utilization of feeds and the improvement of such; metabolic, production, reproduction and health responses to dietary inputs (e.g., feeds, feed additives, specific feed components, mycotoxins); mathematical models relating directly to animal-feed interactions; analytical and experimental methods for feed evaluation; pasture, plant-animal relationship.

- **Behavior, housing and climatology:** Articles are included on — behavior of farm, zoo and laboratory animals in relation to animal management and welfare; studies of the behavior of wild animals when these studies are relevant from an applied perspective, for example in relation to wildlife management, pest management or nature conservation; aspects of shelter design and animal housing that affect health and physiology of animal; effect of climate change on breeding, feeding and health in animals and its mitigation.
4. Livestock economics, marketing and extension: Livestock economics and related disciplines such as statistics, marketing, and their application to issues in the livestock, food, and related industries; rural communities, and the environment; new extension issues are considered for publication.

5. Statistics: Articles on development and use of statistical methods in the animal sciences and fisheries are considered for inclusion in journals.

6. Indigenous technical knowledge: Articles related to validation of indigenous knowledge on any field of animal sciences; organic farming is included in the journal.

III. Animal Products

- Animal products: Methods to improve production, quality and shelf life of dairy, meat and egg products, and wool and hide are in the scope of the journal.

IV. Fisheries

- Articles on fisheries in salt, brackish and freshwater systems, and all aspects of associated ecology, environmental aspects of fisheries, and economics, are considered. Both theoretical and practical papers are acceptable, including laboratory and field experimental studies relevant to fisheries. Papers on the conservation of exploitable living resources and review articles are also published. The approach of the journal is multidisciplinary.
ANNEXURE-III

GUIDELINES TO REVIEWERS

1. Duties of a reviewer

- A reviewer’s duties are to assist the editor in maintaining the quality of the papers appearing in the journal and to help the authors by constructive criticism of their efforts.
- Reviewers are selected in recognition of their authoritative scientific work in the fields covered by a journal.
- Each paper submitted for publication is reviewed by two independent reviewers. If their reports disagree with regard to the suitability of the paper for publication, advice of a third reviewer is sought.
- Reviewers are expected to respond to the editor’s request for advice within a limited period of time, and its length (15 days) is clearly stated by the editor. If a reviewer finds himself unable to attend to a manuscript within this period, he is asked to return the script immediately without comments in order to allow the editor to select another reviewer without further delay.
- A reviewer’s report is meant to guide the editor, who usually transmits it to the author in order to help him improve his paper or understand the reasons for rejection.
- Although the editor in most cases transmits the comments of a reviewer verbatim to the author, yet he ensures that the name of the reviewer remains confidential.
- Although the reviewing system, helps to maintain and improve the quality of a journal, there are certain pitfalls, which an editor is always aware hence never uses the reviewers’ comments blindly.
- Authors are asked to follow the suggestions made by the reviewer, or otherwise state to the editor their reasons for not doing so.

Identifying and selecting appropriate reviewers

Editor strives to establish and maintain a database of suitably qualified peer reviewers. The qualities of a good reviewer are

- Expertise in one or more areas of paper
- Objectivity
- No conflicts of interest
- Good judgment
- Able to think clearly and logically
- Able to write a good critique
- Accurate
- Readable
- Helpful to editors and authors
- Reliable in returning reviews
Able to do the review in the allotted time-frame

- A database of suitably qualified peer reviewers has been established and maintained.
- Editor objectively monitors the performance of peer reviewers and records the quality and timeliness of their reviews. Editor generally ignores rude, defamatory peer review. Peer reviewers who are not found up to the mark are not selected again.
- Editor encourages peer reviewers to decline reviewing invitations if under any circumstances they might not be able to provide fair peer review.
- If authors request that an individual (or individuals) does not peer review their paper objectively, editors uses this information while selecting the peer reviewer.
- Editor may choose to use peer reviewers suggested by authors, but authors’ suggestions are not binding.
- Editor requests the peer reviewers who delegate peer review to members of their staff to inform the editor when this occurs.

**Fair peer-review process is aimed to minimize bias.**

- The peer-review system that best suits a cross-discipline journal has been selected.
- Peer review system is non-blinded and has multiple reviewers. Research articles, short notes and review articles are always peer reviewed.
- Consistent standards are applied in peer-review processes.
- If discussions between an author, editor, and peer reviewer have taken place in confidence it remains in confidence unless explicit consent has been given by all parties or there are exceptional circumstances (for example, when they might help substantiate claims of intellectual property theft during peer review).
- Editors or board members are never involved in editorial decisions about their own work. Journals do not consider original research papers and reviews from editors or employees of the journal.
- Journal editors, members of editorial boards and other editorial staff are requested to withdraw from discussions about submissions where any circumstances might prevent those offering unbiased editorial decisions.

**Authors have a right to appeal editorial decisions.**

- Authors may appeal peer review decisions.
- Editor mediates all exchanges between authors and peer reviewers during the peer-review process (i.e. prior to publication).
- If agreement cannot be reached, editor invites comments from additional peer reviewer(s).
- The editor’s decision in consultation with the editorial board chairman/member (subject matter specialist) following such an appeal is final.
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- **Editorial independence**
  Editorial independence should be respected. Decisions by editor on publication of an individual item submitted to a journal should not be influenced by pressure.

**Checklists for reviewers**

- The reviewer must consider the scientific focus, readership, standards and policies of the journal as he/she reviews the paper. The journal needs scientific expertise, and not the editorial assistance. Journal relies on its reviewers to evaluate the technical quality and importance of the content of manuscript.
- Reviewers’ comments that focus completely on minor editorial problems (typographical errors, misspellings) and do not comment on the knowledge content in the paper, have limited value as they do not advise the editor on the importance and validity of the science and do not help the editor to make an informed decision concerning publication.
- Reviewer represents the journal, and is not a friend of the author. It is unethical on part of the reviewer to allow an unsound paper to pass uncontested into the peer reviewed literature, where it will misguide a novice reader who will read the manuscript (or may be only abstract) superficially and simply accept the faulty conclusions at face value. The peer review process is accomplished by experts and they provide a scientific stamp of approval to the paper and its contents. The reviewer therefore must support work of high quality and reject the faulty articles.

Please consider the following points into account while reviewing articles.

- The problem is genuine or not
- Importance of work.
- Title is appropriate and reflects the content fully.
- The abstract describes the content accurately.
- The objectives are clearly stated.
- Materials, methods and experimental design are correctly applied for the problem.
- The data is genuine or not.
- Correct statistical analysis has been used or not.
- The discussion is presented clearly, strongly and convincingly.
- The article is well presented or not.
- Highlight the irrelevant sections of the article.
- The field is adequately covered or not? Also highlight missing relevant areas that should have been included.
- The bibliographic and other authoritative sources strongly support the article or not.
- The interpretation of the information is new or not.
- The interpretation of result is based on scientific reasoning or not.
- The conclusions drawn in the paper are valid or not.
- The information is factually correct or not.
- The discussion fully supported the conclusions or not.
• The illustrations/graphs/tables support the results and are able to add impact to
  the article.
• The article contributes significantly to knowledge.
• The reviewer should also comment on
  o The length of the paper
  o The writing quality
  o The clarity, accuracy, and completeness of the figures and tables
  o The accuracy and adequacy of the introduction which frames the area of the
    research, of the discussions of prior and related work, and of the citations to
    the literature.
• Some editorial comments are appropriate
  • Should identify sentences or paragraphs where the wording is sufficiently
    erroneous or ambiguous that the science is unclear.
  • Should also point out language errors that result in faulty scientific
    statements.
  • Should point out errors in referencing.
  • A note warning that a manuscript requires major editorial assistance or is
    very carelessly prepared and cannot be reviewed, is always very important.
  • Reviewers should not waste inordinate amounts of time correcting minor
    problems with spelling, grammar, or punctuation; instead suggest correcting
    them.

Writing the comments

The reviewer should keep in mind the following instructions while writing the comments-

• These must be clear, concise, and accurate.
• Although their primary purpose is to advise the editor, comments to the author
  frequently are of value in guiding revision of the paper for the same or a different
  journal and in suggesting ways to improve the project by the inclusion of additional
  data or experiments.
• Comments to the author may be very brief, especially in the case of an excellent, well
  prepared paper.
• They may be extensive if the reviewer feels the paper has valuable elements but
  requires extensive revisions to present the findings effectively.
• Comments and recommendations should be clear and should be supported with
  citations to specific areas in the text of the paper.
• When the reviewer’s criticisms rely on or are supported by data in the literature, the
  reviewer should provide citations to the relevant papers.
• A good review should help the authors to think more clearly about their work and
  its design, execution, presentation, and significance.
• Some are not transmitted, depriving the author of any beneficial insights the
  reviewer might have had.
• Rudeness, personal criticism and locker room humor are never appropriate. Even
  the most serious scientific criticisms can be worded and presented in such a way as
  to be constructive and collegial.
• Reviewers should write critiques using a style and tone that they would want to see in the reviews that they or their trainees receive.
• Reviewers should remember that they are setting the standards of behavior and collegiality for their field, as well as the standards of science.
• The reviewer should always work to provide reviews that meet high standards of ethics as well as high standards of science.

Sanctity of Manuscript -- Points to remember

• Manuscripts under review are confidential documents.
• These are unpublished data and ideas, which must be kept confidential.
• Reviewer cannot share the paper or its contents with his colleagues.
• Manuscript should be kept in a secure place, where it is not readily accessible to the curious or unscrupulous. Reviewer cannot use the information in the paper in his own research or cite it in his publications. This can raise serious ethical issues if the work is used to benefit reviewer's research.
• The outcome and content of the review as well as the paper are confidential.
• Lapses in the confidentiality undermine the review process, betray the trust of the authors and the editors, and can create serious problems for everyone involved in the review process.
• Can you pass the paper on to someone else to review? The permission of the editor is granted in cover letter; if not, the editor should be contacted in advance
  ▪ The reviewer initially contacted should always let the editor know that the manuscript has been given to another reviewer because it is
    • Important for the records of the journal
    • The information may be required to configure web portal for the new reviewer
    • Actual reviewer receives credit for his/her efforts
    • Adds the new reviewers to the journal’s database, facilitating future invitations to review papers
    • Increases reviewers’ visibility -- journals list and thank reviewers in journal and on journal and websites

Reviewer should avoid

• Misrepresenting facts in a review,
• Unreasonably delaying the review process,
• Unfairly criticizing a competitor’s work,
• Breaching the confidentiality of the review.
• Proposing changes that appear to support the reviewer's own work or hypotheses.
• Making use of confidential information to achieve personal or professional gain.
• Using ideas or text from a manuscript under review.
• Including personal criticism of the author(s).
• Failing to disclose a conflict of interest that would have excluded the reviewer from the process.
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V. Edwin Joseph
Former Officer-in-charge
Library and Documentation Centre
CMFRI, Kochi
Introduction

CMFRI is the oldest Marine Fisheries Research Institute in India. The Institute carries out in depth studies on all aspects of marine fisheries and marine aquaculture. For the execution of the research programmes, the Institute collaborates with various national and international organizations in the subject field. It extends its activities through transfer of technology, dissemination of information through education, training, extension and consultancy services. The research output is published as scientific papers in various national and international journals. Going back to 1948, and upto the present, more than 10,000 scientific publications by the Institute’s scientific community are published in journals, Institute publications, conferences, seminars, symposia, technical reports, theses, patents and related publications.

The recent developments in Information Communication Technologies (ICTs) has brought drastic changes to conventional communication channels of scientific communications, information, sharing and accessing behaviour of the scholarly community. The ICTs have paved the way for the global Open movement among scholarly communities. Open Access to science and scholarship means making scholarly research articles freely available to the public online without any restrictions. Following this, CMFRI planned to establish an Open Access Institutional Repository. The institute publications nearly 10,000 scientific articles are now digitized and made available through eprints@cmfri. The evolution of this institutional repository is detailed below:
Traditional way of publishing Bibliographies

In order to bring the list of research publications in one bunch, the Institute was publishing bibliographies in print form till 2006. List of publications by the staff of CMFRI for the period from 1948 to 2006 was published in CMFRI Special Publications Nos. 27, 51, 68 and 96 at various intervals. Though we publish the list of papers in print copies of the bibliographies, the full text of the research papers was not reaching the global audience.

Online Bibliography

Realizing the need of wide spread publicity to the scientific papers world wide and following the recent Information Communication Technologies, CMFRI Library has taken initiation to keep the bibliographical details of the papers published by CMFRI in the INTERNET. The software was developed in MS Access format with keyword search facilities to create a database for CMFRI bibliography.
Online Database for CMFRI Bibliography was created for the period from 1948-2008. It was launched during 2008. This is the first online bibliographical database for the scientific papers published by our scientific staff. This may be accessed at: http://www.cmfri.org.in/html/cmfri_intraSPS.html.

**Eprints@CMFRI: An Open Access Institutional Repository**

The Online bibliography compiled by CMFRI was useful only for knowing the bibliographical details of the papers published by the Institute. Though CMFRI has published more than 10000 scientific papers since 1947, the full text of these articles has not reached the global audience. As a result, citations for these scientific papers are poor. The value of a scientific paper is rated by the citation index. Realising this, CMFRI leadership strongly felt an institutional repository be established to provide open access to the Institute’s scientific publications. CMFRI Library took the lead in implementing the IR for Institute’s publications. The aim of the IR at CMFRI is to provide an effective means of ensuring the disclosure of and access to the scholarly work research of this Research Institute. As a first phase of IR, full print copies of scientific papers were collected from the scientists published since 1947. Interestingly the authors were reluctant to deposit their scientific papers in the repositories. The reasons could be:
Effective Management of E-Resources in Research Libraries

- Uncertainty and fear on copyright issues
- Reservations regarding who and how the material would be used
- Uncertainty about who gets attribution impact and scholarly credit
- Myth of low quality materials in IR

However, these apprehensions were overcome and that finally started the scanning process of the papers published since 1947. The digitization work was started during 2009. More than 4 lakh papers have been scanned and these scanned images were converted into PDF and were arranged year wise.

To enable this repository in the INTERNET, the Open source software developed by the University of Southampton, UK is installed in Library server. The CMFRI IR is given a name an eprints@cmfri. The scanned 10,000 scientific papers centering 5 lakh pages have been uploaded as on August 2015. It may be accessed through website: http://eprints.cmfri.org.in

Interested users can freely download and use documents as most of them are directly accessible and full-text downloadable. ‘Request copy’ forms can be used for documents to which direct full-text download is restricted due to publisher embargo. The following types of publications of CMFRI are uploaded /self archived by CMFRI Scientists who do research on fisheries and related areas.

- Article
- Book
- Book Section
- Conference or Workshop Item
- Dataset (Fisheries Statistics, Census etc)
- Monograph
- Other (Annual Reports, News letters etc)
- Teaching Resource (Training manual, Lecture notes etc.)
- Thesis
Global Visibility of CMFRI Repository

Realising the importance of the global indexing and search services, our institutional repository has been registered with the undermentioned international data bases.

- Google
- Google Scholar
- Oaister
- Base
- Scientific Commons and
- Scirus
- AVANO – a Marine and Aquatic Science Open Access Repositories, USA

http://www.ifremer.fr/avano/
Inauguration of eprints@cmfri

Knowing the importance of this repository, Honorable Dr. S. Ayyappan, Secretary DARE & the Director General, ICAR launched CMFRI Institutional Repository on 26th November 2010 in a function held at CMFRI.

Benefits of CMFRI Open Access Repository

- Prestige of the Institute will be raised when a staff paper is included in Eprints@CMFRI
- Enhances the professional visibility of scientists of the institute
- Serves to demonstrate the breadth and depth of research output of CMFRI
- Open Access Repositories like Eprints@CMFRI offer the widest possible dissemination of scientific findings
- Research has demonstrated that open access online articles have appreciably higher citation rates than traditionally published articles
- Serves to establish priority of ideas and intellectual property, i.e. registering the work with a date stamp and identifier
The centralized system of documenting the papers manages and presents the research output of the Institute in an organized fashion.

Students/Scientists can easily access faculty papers via Eprints@CMFRI. This provides easier access to the entire publications of CMFRI.

Preserves and provides long-term access to the scholars' research output.

All institutes' papers in one roof will facilitate the policy makers to select the non priority areas in Marine Fisheries.

Scientific output of institute is reaching the global audience immediately.

**Statistics of the eprints@cmfri**

**Greater reach for our research**

The Library & Documentation Centre has developed its Open Access Institutional Repository viz: eprints@cmfri for Institutional publications. The Institutional repository facilitates browsing by year of publication, author, department, subject category and document type. Advanced search is possible by author, title, subject and with many options. Our IR has reached 198 countries in the world. More than 296 full text articles contributed by the scientists and staff of CMFRI were uploaded during the year 2014 and are available in 'Eprints@CMFRI'. We have uploaded more than 10,000 scientific papers.

The usage of eprints@cmfri for the period April, 2014 to 31st March, 2015 has been recorded. More than 199 countries used the repository and 1,06,152 times visited and downloaded full text of scientific papers. Notably, visits from India are highest with 69,827 times followed by USA 5,164, Philippines 2571, Indonesia 2046, Malaysia 1,922, UK 1481, Australia 1340, Mexico 1273, Thailand 956, Japan 899 and so on.
India’s Best Institutional Repository Award 2012

Registry of Indian Open Access Repositories, a part of Open Access Journals Search Engine (www.oajse.com) had conducted a survey to get Best Institutional Repository in India. After proper verification and evaluation of various parameters, Eprints@CMFRI, the Institutional Repository of Central Marine Fisheries Research Institute (http://eprints.cmfri.org.in/) has been selected for the India’s Best Institutional Repository Award 2012.

World Rank

Consejo Superior de Investigaciones Cientificas (CSIC), the largest public research body in Spain is ranking the World Web IRs; this Institute has released the rank of the world IRs. We are glad to write that our Eprints@CMFRI gets 343rd International Rank, 176th rank in Google Scholar and 1st rank among ICAR and 3rd in the Indian IRs.

Ranking of World Web of Repositories 2015

CMFRI in Third place in India (among 43 Rep.)
World Rank: 343 among 2256 IRs
Conclusion

Having a mandate of ICAR for an Open Access which was released on 13th September 2013, the CMFRI could rise up to the expectations with its institutional repository gateway. There was articulated interest among several researchers to publish in open source platforms but researchers remained initially reluctant. With the establishment of eprints@cmfri, it is possible to provide the researchers with substantial and subject specific information on Open Access and with the institutional repository, CMFRI is able to implement a simple and easy solution for Open Access. Therefore our researchers could project their intellectual products and other research outputs and drawn an attention among their counterparts over the globe. Finally, it can be concluded that greater visibility of our public funded research reaches the global audience through our eprints@cmfri.
E-book publishing

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DKMA, KAB –I,

New Delhi-12
E-book publishing

Points to deliberate

- E-book?
- History
- E-book advantages
- E-book vs print books
- Why e-book
- Content development
- Selection of publisher
- Publicity
- Ebook sell points
- Future of e-books

E-book?

- **book-length** publication in digital form,
  - text, images, or both
  - readable on computers, electronic devices.
- An electronic version of a printed book
  - but many e-books exist without any printed equivalent.

E-books are usually intended to be read on dedicated e-readers, computers, tablets, and smartphones.

**History-I**

- Several publications report Michael S. Hart as the inventor of the e-book in 1971.
- He created his first electronic document by typing the United States Declaration of Independence into a computer.
- *Project Gutenberg* was launched to create electronic copies of more texts - especially books.
- In 1990s, general availability of Internet made transferring electronic files much easier, including e-books.

**History-II**

- The first e-readers - Rocket ebook and SoftBook - were introduced.
- Kim Blagg obtained the first ISBN. The e-books were sold:
- Websites began selling ebooks in English, such as eReader.com and eReads.com.
Amazon releases the Kindle Paperwhite (3rd generation) -6-inch, 300 ppi E Ink Carta HD display, with bookerly, a font exclusively designed for e-readers

**Advantages**

- Space and weight savings
- Multimedia benefits
- Privacy from the public
- Environmental savings
- Distributive and access benefits
- Automatic back-up
- Highlighting and annotation
- Dictionary
- Search

**E-book vs print books**

- Restrictions in use
  - Can't borrow or exchange a book with friends
- Lack of privacy
  - No privacy of your book reading habit
  - Need of a power source even in day light
  - Autographs and dedications
  - Symbolic and aesthetic value of the printed book
    - A-spine of the printed book
    - Printed book is an object itself, besides texture, smell, weight, and appearance on the shelf

- Electronic books are ideal - value the information; vision problems; read on the subway; do not want to share their reading habit; clutter issues; but e-books are useless for people who love books that we can touch, smell and depend on
Content development

- Content is the KING
- Millions of books are available but now there is the glut of high-quality, low-cost books.
- Only a good book survives.
- Book on a latest topic/original plot climbs the ladder of bestsellers.
  - Select an Idea
  - Research
  - Organize Notes and Resources
  - Develop an Outline
  - Decide timeframe
  - Develop framework
  - Write
- Complete the book
- Edit
- Don’t let e-book look like print book
- Convert the formatted manuscript into e-book readable format

Formatting

- Putting your book into an ebook-friendly format is complicated,
  - each ebook seller has its own rules on everything
    - Illustrations, indentation, bullet points
    - Amazon’s “Formatting” Q&A forum has over 3000 threads in it.
Format

<table>
<thead>
<tr>
<th>Reader</th>
<th>Native E-Book Formats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amazon Kindles and Kindle Fire tablets</td>
<td>AZW, AZW3, PDF, TXT, non-DRM MOBI, PRC</td>
</tr>
<tr>
<td>Barnes &amp; Noble Nook Simple Touch and Nook Tablet</td>
<td>EPUB, PDF</td>
</tr>
<tr>
<td>Apple iPad</td>
<td>EPUB, IBA (Multitouch books made via iBooks Author), PDF</td>
</tr>
</tbody>
</table>

**Formatting**

- E-publisher will change the file into Epub
- Use [Adobe Digital Editions](https://www.adobe.com/digital-editions) to read Epub file for free
- Formatting service will send back in .doc format (older versions of Word, pre-.docx, are best).
- Use this .doc as a master file for everything.
- **Prepare multiple versions (different fonts)**
- Prepare descriptive blurbs
- **Create a cover**
- **ISBN**
  - ISBN
  - An International Standard Book Number
    - unique code assigned to every book published
      - Bowker issues and manages ISBNs
      - ISBNs are mandatory for all printed matter, but by and large they're optional for ebooks, as most ebooksellers don't require them.
But Apple insists for it.

Obtain directly from Bowker or arrange

- through an aggregator (e.g. Smashwords), which is free but binds you to its service forever.

**Selection of publisher**

Many self-publishing platforms are available for authors.

1. Amazon’s Kindle Direct Publishing (KDP)
2. Nook Press
3. iBook Authors
4. Kobo Writing Life (KWL)
5. Smashwords
6. CreateSpace
7. Lulu
8. BookTango
9. BookBaby
10. AuthorHouse

**EPUB 3 -- format of choice**

- The most widely supported vendor-independent XML-based (as opposed to PDF)
- Supported by maximum hardware readers (Amazon Kindle Fire)
- Many software readers use it e.g. iBooks on Apple devices, Google Books on Android.

**Advantages**

- **Reflowable document:** a reader can optimize text for a particular display device.
- Bookmarking of a page.
- Highlights passages and make notes.
• Font size, Text and background color can be changed as per choice.
• An EPUB file -- a ZIP archive containing HTML files, images, etc.
• EPUB 3, the latest version, uses HTML5 -- can contain video, audio, and interactivity, just like websites in modern browsers.
• Concept of EPUB -- content presentation adapt to User and not User
• EPUB 3 provides text-to-speech (TTS) facilities

**Publish**

• Making the book available on publisher platform. Follow these steps:
  • Go to the publisher platform and sign in (open an account).
  • Register your tax information for royalties.
  • Click for new title
  • Fill out the form, including book title, description, and keywords you want people to search to find your book.
  • Upload the cover file (as per the specified format).
  • Upload the book file.
  • Click “Save and continue” and advance to the “Rights and Pricing” page.
  • Choose “Worldwide Rights.”
  • Choose a 70% royalty rate; select price. e-books are priced $2.99-9.99 (this is what is recommend to maximize the royalty rate).
  • Click Save and Publish.
  • Will get email when the book is ready, may take 24–48 hours

**Promote**

• Get the book reviewed.
• Reviews are important, because they prove the work to new readers.
• Whisper campaign promotes a book
• Promote the book anywhere (Facebook, Twitter) with a link with eBook page.
• [StoryCartel.com](http://StoryCartel.com), provides free, ethical reviews.
Ebook sell point-I

- Some services are available to handle sell for author
- **Payhip**: host your eBooks, securely deliver to customers; handles payments through PayPal; only upload your eBook to start selling. Sign Up [Free] | Royalty per Sale [100%]
- **Lulu**: free eBook Creator Guide. Sign Up [Free] | Royalty per Sale [90%]
- **Amazon Kindle Direct Publishing**: watch a video tutorial on how to publish eBooks on Kindle Direct Publishing. Sign Up [Free] | Royalty per Sale [35% – 70%]

Ebook sell point-II

- **Smashwords**: reach the Apple iBookstore, Barnes & Noble, Sony Reader Store, Kobo, Diesel eBook Store, Baker & Taylor’s Blio and Axis360 etc.; free ISBNs and eBook conversion to 9 formats. Self-Publish an EBook with Smashwords. Sign Up [Free] | Royalty per Sale [60% – 85%]
- **Booktango**: free service; helps in design a cover for the eBook; helps in publishing and market it through Barnes & Noble, Apple iBookstore, Kobo, Sony, Amazon, Google and Scribd. Sign Up [Free] | Royalty per Sale [100%]
- **PaySpree**: List eBooks in PaySpree marketplace for instant exposure. One product is for free but for more products buy a one-time Premier account ($29 to activate) and list an unlimited number of products for life. Sign Up [Free] | Royalty per Sale [90% – 100%]
For more on ebooks, check out How to Read .ePub eBooks on the Browser and if you tweet a lot then you might be interested in Converting Your Tweets into a Published Book!
Author resources

- Guidelines are available on
  - Excellent Book-Length Guides
  - Getting Started & Principles
  - Sales, Marketing, and Promotion
  - Reviews & Review Sites
  - Creating & Formatting E-Books (Technical Stuff)
  - Tools for Creating Enhanced, Multimedia, or Full-Color E-Books
  - Major E-Book Retailers
  - Major E-Book Distributors & Services
  - Authors Who Blog About E-Book Publishing
  - News & Trends About E-Book Publishing

Standards

- make individual e-books more resilient, more adaptable to a sometimes-hostile ecosystem
- Use existing Web technology as much as possible. e-books are, fundamentally, just HTML and CSS.
- EPUB3 is the dominant interchange standard in the e-book world

Future of e-books

E-print to takeover print-books
Copy-Editing a document

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Copy-Editing a document

Discussion points

- Editor
- Need of editing
- Editing of
- Book editing
- News/report/radio/TV/research article
- Editing DNA
  - Preliminary editing
  - Technical editing I-III
  - Abbreviations
  - Number
  - Capitalization
  - Punctuation I-II
  - Hyphenation
- Article editing- Title, Abstract, Introduction, Materials and methods, Tables, Figs, Results and discussion, Conclusion References
- Typesetting
- Manuscript to press
- Proofreading
- Helplines

Editor

- Must know the aim of the editing work
- Must have enough time to do the job right
- Read the text for comprehension
- Master the language
Effective Management of E-Resources in Research Libraries

- Master the home style
- Have the confidence to spot and fix errors

Need of editing – I

- A document is edited to ensure that
  - facts are correct
  - spelling, punctuation and grammar are correct
  - no unnecessary words -- to make text clearer
  - sentence structure—text flows from one point to the next
  - charts, maps and graphics are correct
  - overall style meets the international standards, and
  - typescript adheres to the publisher’s house style

Need of editing – II

- A good editor tries to retain original style simultaneously resolving all language issues.
- Editor must edit only what is confusing or superfluous.
- Editors are generally worried about
  - how much editing is sufficient?
  - Light Copyediting
  - Medium Copyediting
    - checking content handling by author
  - Heavy Copyediting
    - channelizing the flow of content

Editing of

- Main document types that need specific attention in editing are
  - Books
  - Popular articles
  - Reports
  - Article
Book editing involves

- Editing text
- Editing tables
- Editing and keying in figures
- Editing prelims
- Importance of house style
  - Formatting and consistency
  - Using quotation marks
  - Using italics
    - Different uses of italics: taxonomic classification, words of other than English language
  - Using numbers and numerals
- Editing notes, references and bibliographies
- Editing indexes.

News/ report/ radio/ TV

- Information
  - Newspaper
    - News
    - Report
    - Article
  - Radio
  - TV

Editing DNA

- Preliminary editing
- Technical editing I-III
- Abbreviations
- Number
- Capitalization
• Punctuation I-II
• Hyphenation

Preliminary editing

- Run spelling and grammar check on the document
- Check for accidental repetition of words
- Check for
  • homonyms such as weak for week
  • Fix any run-ons
  • apostrophe errors
  • missing commas, and
  • sentence-ending punctuation and initial capital letters

Author Guidelines

- Editor must become familiar with the guidelines so that s/he can enforce these guidelines.

TECHNICAL ELEMENTS OF Editing –I

- Editing is done for preparing a manuscript for publication
- A manuscript is submitted as
  • a hard copy along with
  • electronic copy.

TECHNICAL ELEMENTS OF Editing –II

- Spelling
  - Editor must take care of the spellings
    - Errors will cause readers to seriously question the writer’s commitment to quality.
    - Spell checker feature in the word processor can be used but these are also not perfect, so pay careful attention to spelling.
    - Always refer to a dictionary to look up technical terms not found in typical spell checkers.
Effective Management of E-Resources in Research Libraries
Grammar: There is no substitute for mastering grammar rules. Always remember following points

- Don't use double negatives.
- Take care that the verb and subject is in agreement.
- No sentence fragments.
- Placing a comma between subject and predicate is not correct.
- Use the apostrophe in its proper place.
- Avoid colloquial stuff.
- The passive voice should be used infrequently.
- Do not start sentences with a conjunction.
- Reread your work and improve it by editing out the repetition noticed during the rereading.
- Avoid use of ampersands & abbreviations.
Abbreviations/Acronyms

- Introduce all abbreviations and acronyms prior to their first standalone appearance in the text.
- Use abbreviations sparingly.
- If the term is used in different sections of a report, reintroduce the acronym in the new sections.
- When listing states of a nation in text, spell them out; do not use abbreviations. Please note that periods are not used with these abbreviations.
Numbers/Percentages

- Spell out numbers of nine or less in text and footnotes, except percentages (e.g., ages 3 to 5, but 5-year-old). Use Arabic numerals for 10 and above.
- Always spell out numbers at the beginning of a sentence. But it is better to reconstruct the sentence.
- When citing ratio, use 2:4 or spell out two to four.
- Use % in tables, figs and parenthesis; in text spell out per cent or check the style the journal is following.

Capitalization

- Capitalize only proper nouns and
- Some of the terms derived from, or associated with, proper nouns.
- Titles of publications:
Capitalize all words but not — and, or, but, a, an, the, in, on, of, from

In titles and headings, do not capitalize the word after the hyphen for hyphenated words
e.g., Important Trans-boundary Diseases.

Lists in Text: Bullet points are used to draw attention to important information within a document so that a reader can identify the key issues and facts quickly. There are no fixed rules about how to use them, but here are some guidelines. Introduce the list with a lead-in phrase or clause (the lead-in need not be a complete sentence; the list items can complete the grammar started by the lead-in). Punctuate the lead-in with a colon.

For bulleted lists in text, follow these rules:

If list has complete sentences, then the first word of all items in the list should be capitalized.

If list has no complete sentence, the first word should be in lower case.

In numbered lists, capitalize the first word of all items.

Bullet

The following Experts’ Groups are being constituted with the mandate to prepare status documents and identify researchable areas:

• Role of pathogens in food safety,

• Food additives and contaminants and food safety,

• Consumers.

In the session following points were discussed:

• Varied nature of the technologies developed involving different biological forms, which make it difficult to get patents under current IPR laws; safety of food.

Within sentence

Each child was seated at a separate station and given

• an elephant,

• a kangaroo, and

• a giraffe.

And remember that the rule for semicolons when items have internal commas is still applicable:
Each child was seated at a separate station and given
- an elephant, which all children could see but not touch in Experiment 1;
- a kangaroo, which half of the children could see but not touch and half of the children could both see and touch in Experiment 1; and
- a giraffe, which was new to all children in this experiment.

Bullet

The items can be single sentences or full paragraphs. In either case, the first words of the sentences are capitalized and appropriate end punctuation should be included.

Each task increased in difficulty.
1. The instructor read the rules, which began on page of the booklet.
   2. The wording of these rules differed significantly for each group (see Appendix A).
3. The instructor asked if there were any questions.
4. After questions had been answered, the instructor started the timer and told the participants to begin.

Punctuation-I

- Serial comma: Use a serial or series comma (also known as the Oxford comma or Harvard comma) following the penultimate item in a list, e.g., “national, state, and local officials.”

- Em and En Dashes
  - For ranges of numbers in endnotes, tables, and figures hyphens e.g. 288-83.
  - For a regular, long dash, use the em dash symbol, not double hyphens, with no space around the dash. e.g., Rinderpest—black plague of cattle—has been eradicated from India.
  - For both en and em dashes, do not leave spaces around the dash.

Hyphenation

- Use a good dictionary

- Generally, hyphen is used for:
  - Fractions (whether nouns or adjectives): two-thirds, one-fourth
  - Compound adjectives (i.e., those formed from two or more words): high-yielding crop, low-tolerance crop
  - Compound adjectives with numbers or numerals: 2-year-crop

- Do not use a hyphen for a compound adjective that includes an adverb ending in ‘ly’. E.g. economically weak section.
Punctuation

- Lists in text: Follow the punctuation rules for bulleted or numbered lists in text
  - If item in list has complete sentence, all items in that list should end with a period.
  - If each item in the list is five or fewer words, no end punctuation is needed, except for the final item, which should end in a period.
  - For all other lists, end each item with a semicolon (again, except for the final item). The word ‘and’ or ‘or’ should follow the semicolon in the penultimate item.

Scientific conventions

- Editor must follow special scientific conventions for different technical uses in text.
- Chemical Formulae and Names
- Drugs and Pharmacokinetics
- Genes, Chromosomes, and Related Molecules
- Taxonomy and Nomenclature
- Disease Names.
- CrossCheck
- CrossRef
  - Help its members to prevent scholarly and professional plagiarism.
  - CrossCheck is continuously growing a database of current and archival scholarly literature. - See more at: [http://www.crossref.org/crosscheck/index.html#sthash.nrxWJzMf.dpuf](http://www.crossref.org/crosscheck/index.html#sthash.nrxWJzMf.dpuf)
- Editor
- Need of editing
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  - Capitalization
  - Punctuation I-II
  - Hyphenation
Effective Management of E-Resources in Research Libraries

- Article editing: Title, Abstract, Introduction, Materials and methods, Tables, Figs, Results and discussion, Conclusion References
- Typesetting
- Manuscript to press
- Proofreading
- Helplines

Article editing

Length

- Articles are of 10-15 pages (4,000-10,000 words), without references and
- Short communications not more than 3-4 pages (1500 words).
- If the article is beyond this range, ask the author to reduce it.

Titles

- Titles, headings and sub-headings should be in caps and smalls.
- Many authors will use full caps; but change these in order to conform to the style of the journal.
- Journals follow definite style for articles
- Books and reports will have definite heading scheme – develop style sheet for that
- Popular articles can have heading scheme as per the topic

Abstract

Abstract should be:

- self-contained -- intelligible by itself or in combination with the document title
- objective-- should not contain any criticism or interpretation
- factually accurate
- high in information content-- emphasis on new facts
- Immediately clear in its meaning.
Content of abstracts

- Abstracts generally contain up to four, usually sequential, information elements that describe or extract information from the basic document:
  - i) purpose
  - ii) methodology
  - iii) results
  - iv) conclusions/recommendations.

Different types of abstract

- Depending on the original document, its subject interest, content and scientific value, an abstract may be:
  - *informative
  - *indicative
  - a combination of informative and indicative
  - a title-only record.

Abstract

- Abstracts should be of 100-250 words.
- Information in abstract should not include that is not covered in the manuscript being abstracted (data, species).
- Verify that information in the abstract agrees with that in the manuscript.
- Expanded versions of lesser known abbreviations and acronyms, and verbalise symbols that may be unfamiliar to readers of the abstract.
- Omit needless words and phrases.
- References are never cited in the abstract.

Introduction

- Introduction should
  - Justify the research and specify the hypotheses to be tested.
  - Do not allow critical review of concept in introduction.
  - Extensive discussion of relevant literature should be included in the discussion of results, not in the introduction.
  - Objectives
- The syntax shall be
  - simple
    - Use ordinary words.
MATERIALS AND METHODS

- A clear description or specific original reference — all biological, analytical, and statistical procedures
- All modifications of procedures must be explained.
- Experimental materials and statistical models should be described clearly and fully.
- Use of incorrect or inadequate statistical methods to analyze and interpret biological data is not acceptable.
- Statistical methods need not be described in detail, the reference is enough.

Any restrictions used in estimating parameters should be defined.

RESULTS AND DISCUSSION

- Results — Besides text data are presented in tabular form and graphs
- Data — do not repeat in text, give trend of tabular data.
- Interpretation of the results –
  - given in the discussion clearly and concisely in terms of biological mechanisms and
  - integrate literature results with the research findings to provide reader with a broad base on which to accept or reject the hypotheses tested.
- Results and references to tables and figures already described in the RESULTS should not be repeated in the DISCUSSION.

Conclusions

- Must not consist of more than one paragraph.
- After discussion it should explain in lay terms (without abbreviations, acronyms, or citations) the findings of the research.
- Some speculation is permitted; this section should also caution the reader against over extrapolation of results.
- This section may consist of an interpretive summary.
- If results have no implications, this should also be stated.
Graphics

- The inclusion of
  - Figures
  - Graphs
  - Photographs and
digital images

should be decided as per the requirement of the subject.
- Budget will also decide the number of figures.
- Check quality of figures before sending for printing.
- Editing of figures is also done.
- Photoshop can help the photo editor to present the photograph as per requirement.

Tables

- Table editing is very important from presentation point of view. Editor should see that
  - all legends are given in footnote,
  - column headings are correct
  - tables combined or separated.

Table should be numbered and these numbers should match the numbers given in text.

REFERENCES

- Check recent issue of the journal for citation of References in the text as well as at the end of the article

*Reference citations in text  * Reference list *follow style of journal

- Reference citations in text — Xu (1971) or (Xu 1971); Xu et al. (1974) or (Xu et al. 1974)

- Groups of references cited in text must be listed in chronological order

- REFERENCES list - in alphabetical order; and chronologically


Online Source: [www.icar.org.in](http://www.icar.org.in). (The period should be given at the end of the URL.)

Editor should crosscheck the references in text and reference list

Typesetting

- Size of book
- Page orientation
- Page layout
- Heading scheme
  - Levels of heading
- Style sheet
  - Type face
  - Type size
  - Spacing
    - Between lines
    - Heading and paragraph
- Table Style
- Fig presentation
Manuscript to press

**Book:** Provide following material to press

- Title page - Title, Authors, Organization
- Preliminary pages: Foreword, Preface, Acknowledgement, Imprint page
  - Contents etc.
- Text
- Tables
- Figs (Colour; B/W)
- Index
- Cover (Design and figs); Spine matter
- Blurb; About author; Citation; ISBN

**Journal:** Provide following material to press

- Manuscript of all articles
  - Manuscript of each article should be complete

Proof reading

- Before finalizing the article for press, proofread it properly.
- Work from a printout, not the computer screen.
- Read out loud.
- Use the search function of the computer to find mistakes you're likely to make. Search for %; I,II
- If you tend to make many mistakes, check separately for each kind of error, moving from the most to the least important, and following whatever technique works best for you to identify that kind of mistake.
- End with a spelling check, using a computer spelling checker or reading backwards word by word.
  But remember that a spelling checker won't catch mistakes with homonyms (e.g., their or there) or (he or she).
Proofreaders’ marks

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Conclusion

- Be familiar with approaches for copy editing to reduce text content by becoming involved in manuscript design through the use of graphics, including the formatting of submitted materials that allows the editor to convert submitted materials to the Article of the Future.

- Be conversant -- convert textual material through summaries, boxes and highlighted key points to accommodate readers reduced time and shorter attention spans.

- Know how to instruct authors to conform to the journals graphic representation, and understand elements of post-acceptance work to convert information into a graphic medium.

- Understand key points about copy and technical editing for different publication platforms.
Help lines

Free download book

Computer Tools for Editors (and Proofreaders)
by Paul Beverley, LCGI

Version 13.02.15
(At the end is a Changes Log to show what has changed since you last downloaded a copy.)
Software for Editors

- Editorium (improves the editorial and typographical quality)
- Evernote (project management or organization software)
- Google
- InDesign, Inkscape
- LaTeX (equation-heavy writing)
- Macros for Writers and Editors
- MathType Equation Editor
- EndNote, Note Stripper (footnotes, citations and bibliographies)
- PerfectIt (checks files for consistent style)
- Proofreading software (online Proofreading service)
**What is substantive editing?**

In **substantive editing** (also known as **developmental editing** and **comprehensive editing**), the editor considers the document's concept and intended use, content organization, design, and style. The purpose is to make the document functional for its readers, not just to make it correct and consistent.

Substantive editing is almost entirely analysis-based, whether at the document level or at the paragraph, sentence, or word level. Decisions require judgement, not just the application of rules, and therefore should be negotiable with the writer.

Contrast this work with **copyediting**, most of which is rules-based and concerned with grammar, spelling, punctuation, and other mechanics of style and the internal consistency of focus and presentation. Both types of edit are essential: they just focus on different issues. (See also my article on classifying editorial tasks.)

A **substantive edit** deals with the overall structure of the publication:

- Does it all fit together into a coherent whole?
- Is the order of presentation logical (from the target audience's point of view)?
- Is all the necessary information included, and unnecessary information deleted?
- Are the retrieval aids (table of contents, internal headings, index) useful? Do they contain terms that are useful to the target audience?
- For online materials (such as CD-ROM or Web sites), are the navigation aids logical and useful in context? Can users easily find the links they want?

Substantive editing may involve restructuring or rewriting part or all of a document.

A related edit is the **language edit**, which is concerned with how ideas are expressed. For example:

- Sentence complexity and use of active or passive verbs
- Conciseness
- Clear, logical development of ideas
- Use of jargon or technical terms appropriate for the intended audience

(Much of the language edit is a subset of work generally considered to be copy editing, but it may also be done as part of substantive editing.)
Zotero [zoh-TAIR-oh] is a free, easy-to-use tool to help you collect, organize, cite, and share your research sources.

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Effective Management of E-Resources in Research Libraries