TOWARDS BIBLIOGRAPHICAL CONTROL OF INDIAN AGRO-BIOLOGICAL LITERATURE

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Source of Indian Agro-biological literature and their generating points are outlined. Necessity for making the Indian Agro-biological literature available at one place is stressed. Important international and Indian documentation agencies are described. An attempt made at the Marathwada Agricultural University Library, Parbhani (Maharashtra) towards the bibliographical control of Indo Agro-biological literature is explained. Bibliographical Research Cell set up at this library in collaboration with Senior Scientists and library's professional staff prepared an information file and also published 7 documentation projects on various subjects of Agriculture. The detailed holdings of the information file are presented in the table. The published documentation projects have also been enlisted.

1. SOURCE OF AGRO-BIOLOGICAL LITERATURE

After Independence, agricultural research has received paramount importance which geared up many published and unpublished sources of information. There are now 23 Agricultural Universities, 105 agricultural colleges, 24 veterinary colleges, about 20 Home Science colleges and a few colleges of Agricultural Engineering and Food Technology. In addition there are about 24 Research Institutes under the administrative control of Indian Council of Agricultural Research (ICAR), about 80 All India Co-ordinated Projects of Research sponsored by the ICAR. In addition to these there are some independent State Research Institutes conducting research in agro-biological areas. All the traditional universities do conduct research pertinent to Agro-biological areas. At BARC, research on nuclear energy in relation to agriculture is being done. Botanical Survey of India, Zoological Survey of India, and Geological Survey of India carry out surveys and publish information some of which are of interest to Agro-biological workers. The Central Water & Power Commission and the Indian Meteorology Department are also contributing further to the interests of Indian Agriculture. All these comprise the generating points for Indian Agro-biological literature. Coming to sources of literature, journals comprise the major portion as primary source of information. Secondly, the books; the reports; the technical bulletins; the proceedings of symposia, workshops, conferences etc; the Newsletters; the Newspapers; the brochures etc. add to the primary sources of information. Secondary sources like bibliographies; indexes; abstracts; reviews etc. form the other major sources citing the primary sources. Apart from this, microforms; audiovisual and computer readable forms occupy predominant place as literature sources.

2. BIBLIOGRAPHICAL CONTROL OF INDIAN AGRO-BIOLOGICAL LITERATURE

2.1 International documentation agencies on world agro-biological literature

2.1.1 Biosis through biological abstracts

The Bio-Science Information Service of the Biological Abstracts, the United States based documentation agency, is the major service in the world which publishes the Biological Abstracts and Bio-research Index. As per the 1980 BIOSIS List of Sources of the Database, out of 5,858 journal sources it covers 220 Indian journals. This is only about the Indian journals. Indian work is published in journals other than that of Indian origin. As per a recent survey Biological Abstracts cover 42.6 per cent of Indian work as quoted by Banerjee et al.[1].

2.1.2 Bibliography of Agriculture

This is a documentation service of U.S. Department of Agriculture, published monthly. This bibliography consists chiefly of journal articles which are approximately 120,000 per year. There is no information regarding Indian coverage.

2.1.3 CAB Abstracts of Commonwealth Agricultural Bureaux

CAB as an effective clearing house for the collection, collation
and dissemination of information of significance to agriculturists all over the world. The Bureaux select from world literature the information on significant advances in each particular branch of agricultural sciences. This is published in the form of 42 abstracting journals. According to a recent survey, 70.3 per cent of Indian work on Agro-biological areas is covered by the CAB group of journals[1].

2.1.4 AGRIS (The International Information System for the Agricultural Sciences and Technology)

AGRIS began to operate formally in January 1975. This documentation project was established through the co-operation of the FAO (Food and Agricultural Organization of the United Nations) with various Governments and institutions for the purpose of generating data bases which would include references to current literature collected from information generators throughout the world with reference to research and development in the areas of food, agriculture and related sectors. India is also a contributing member for the AGRIS and the Director of the Institute of Agricultural Statistics, ICAR is the Liaison Officer for this purpose. Figures regarding Indian Agro-biological literature covered by AGRIS are not available.

2.1.5 Other foreign documentation agencies in agricultural sciences

PUDOC (The Centre for Agricultural Publishing and Documentation of the Netherlands), IRRI (International Rice Research Institute, Philippines), CIMMYT (Centro Internacional de Mepramiento de Maiz y Trigo, Mexico), IITA (International Institute of Tropical Agriculture, Ibadan, Nigeria), CIP (International Potato Centre, Peru), CIAT (Centro Internacional de Agricultura Tropical, Colombia), ILCA (International Live- stock Centre for Africa) etc. are worth mentioning but the information about Indian work covered by these agencies is not available.

2.2 Indian documentation agencies in agricultural sciences

2.2.1 Indian Science Abstracts of INSDOC

The INSDOC's Indian Science Abstracts though covers Indian agricultural literature, the coverage is not comprehensive. As per a recent survey the coverage of Indian Agricultural literature in Indian Science Abstracts is 42.2 per cent[1].

2.2.2 There are many agencies bringing out Documentation services in very limited sphere. Some of them are: Fertilizer Association of India, FAI Abstracts; The Central Power and Irrigation Abstracts brought out by Central Board of Irrigation and Power; many Universities are bringing out Documentation bulletins and bibliographies; UAS Bangalore Bibliographical Series is worth mentioning. ICRISAT, an international institute established in India has an Information Centre under the title SMIC. It is still in a formative stage. This of course will have coverage of world literature on the crops of ICRISAT's orbit.

3. NECESSITY

It is said that there exists a wide gap in India between the users of the agricultural information and the generating system of this information. To visualise more precisely, the generating system is at one side and the users are at the other side. In between them the communication media to provide an effective interlinking process is not adequate. Many agriculatural workers feel that the Indian works if made available at one place in a quickly retrievable form, would be of great help in locating the specific problems and in avoiding the duplication of research potential. According to some specialists 30 to 40 per cent of a research worker's time is devoted towards literature search and study. Libraries are normally the browsing grounds of the research workers for such activity. Libraries do offer local documentation services which reflect their resources and help to know what they possess. But to know the unavailable Indian information there is no comprehensive outlet.

4. AN ATTEMPT

In 1976, at the Marathwada Agricultural University, Parbhani (Maharashtra), an initiative was taken to set up a Bibliographical Research Cell in the University Library in collaboration with Senior Scientists of the University. This activity started with the sole aim of enriching the library collections by filling up the gaps and adding new journals and other sources. This exercise was aimed at creating a pool of Indian literature. The efforts have been started in this direction. Later it was thought to prepare exhaustive bibliographies in different aspects of Agriculture. At this stage, lead was taken from the library and an Information file of Indian work was maintained. As an experiment, last 10 year's work was collected and compiled starting with Horticultural Sciences. Later on similar efforts were made to collect and compile the Indian work on Soil Sciences. In Horticulture, two separate files are maintained, one for references to literature and the other for references with abstracts to literature. Entries are made on loose paper slips and filed in cardboard boxes. Organization of references is made in four levels, (i) Crop level, (ii) Subject level, (iii) Chronological level and (iv) Alphabetical level. All the references in crop level are classified by the Dewey Decimal Classification, 18th edition. All the references of a particular crop are classified by the selected subject headings both major and minor, prepared in consultation with the senior scientists. References of a particular subject heading are classified further by the year of publication of the work and arranged in a chronological sequence to assist the users in year-wise approach. The references under a particular year are classified by the surname/popular name of the author of the work and arranged in one alphabetical sequence. In a few cases
the alphabetization was carried to titles of the work. In the case of Soil Sciences, the references are grouped into 12 major areas of Soil Sciences. Under each area the references are classified first chronologically by the year of publication of the work, and secondly under a particular year alphabetically by the surname/popular name of the author. Thus the work started with two branches of Agriculture and now it is streamlined under four panels, (i) Horticultural panel, (ii) Agro-ecology panel, (iii) Crop protection panel, and (iv) Soil Science panel.

4.1 Holdings of the information file

The detailed holdings of the information file have been presented in the Table. The information regarding the period of coverage, number of sources scanned and the number of items collected is furnished.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Subject</th>
<th>Period of coverage</th>
<th>References collected</th>
<th>Abstracts collected</th>
<th>Sources scanned (excluding theses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fruit crops</td>
<td>1966-81</td>
<td>4,897</td>
<td>-</td>
<td>181</td>
</tr>
<tr>
<td>2</td>
<td>Vegetable crops</td>
<td>1966-81</td>
<td>4,667</td>
<td>-</td>
<td>181</td>
</tr>
<tr>
<td>3</td>
<td>Floriculture</td>
<td>1966-81</td>
<td>2,216</td>
<td>-</td>
<td>181</td>
</tr>
<tr>
<td>4</td>
<td>Soil Sciences</td>
<td>1956-77</td>
<td>3,767</td>
<td>-</td>
<td>91</td>
</tr>
<tr>
<td>5</td>
<td>Pulses</td>
<td>1966-80</td>
<td>2,357</td>
<td>-</td>
<td>125</td>
</tr>
<tr>
<td>6</td>
<td>Oil seeds</td>
<td>1966-81</td>
<td>3,450</td>
<td>-</td>
<td>125</td>
</tr>
<tr>
<td>7</td>
<td>Weed Science</td>
<td>1950-81</td>
<td>-</td>
<td>2,414</td>
<td>221</td>
</tr>
<tr>
<td>8</td>
<td>Viticulture</td>
<td>1900-81</td>
<td>-</td>
<td>1,432</td>
<td>196</td>
</tr>
<tr>
<td>9</td>
<td>Sugarcane</td>
<td>1950-82</td>
<td>-</td>
<td>593</td>
<td>45</td>
</tr>
<tr>
<td>10</td>
<td>Seed Science &amp; Technology</td>
<td>1950-82</td>
<td>-</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Pesticides</td>
<td>1960-82</td>
<td>3,393</td>
<td>-</td>
<td>181</td>
</tr>
<tr>
<td>12</td>
<td>Farm Management</td>
<td>1950-82</td>
<td>-</td>
<td>560</td>
<td>25</td>
</tr>
</tbody>
</table>

As seen in the table, the holdings of the information file as on 1.1.1982 consist of 24,747 references and 5,020 abstracts.

4.2 Access to information file

The file is maintained only for official use. Users of the library are not allowed to have direct access to the file. Their demands for literature are attended to and they are being provided with bibliographies on their topic. Abstracts are also supplied on request.

5. Publications

Owing to paucity of funds at the disposal of the library and lack of proper facilities for printing, private publishers were approached for getting the bibliographies published for wider use. The following bibliographies have been brought out.


It is a bibliography of references to journals, proceedings of symposia, conferences, theses submitted to Indian universities, 3,497 references of 68 crops make it a comprehensive tool. A detailed subject index is provided.


It is a bibliography of references to journals, proceedings of workshops, conferences; theses submitted to Indian universities. 3,767 references grouped under 12 areas of soil science with Author and Subject indexes make it a good reference tool in Agriculture.


It is a select bibliography of references to journals, proceedings of workshops and symposia and theses of Indian Universities. 4,209 references of 52 vegetable crops make it a comprehensive reference tool. Author and subject indexes are provided.


It is a select bibliography of references to journals, proceedings of workshops and symposia and also theses of Indian Universities. It lists 2,357 references on 20 crops. Author and subject indexes are also provided.


This work is presented in two volumes, Vol. I, Weed control in crops, Vol. II, Weeds and weedicides. 2,414 abstracts with references makes it an authoritative information
source book on Indian Weed Science Research. Under part II of each volume four Indexes are provided, (i) Source index, (ii) Systematic weed index, (iii) Subject index and (iv) Author index.


This work encompasses almost the entire Indian research work published in Indian as well as foreign journals, in the form of abstracts. About 1,400 abstracts on a single fruit—Grapes makes it a valuable reference source book. Under Part II three indexes are provided, (i) Source index, (ii) Subject index, and (iii) Author index.

5.7 Indian Literature on Oil seeds 1966-1981, a select bibliography. New Delhi: Metropolitan Book Co. (in press). Rs.200/.

It is a bibliography of references to journals, proceedings of workshops and symposia and theses of Indian Universities. About 3,500 references on oil seed crops grown in India makes it a useful reference guide to literature. Author and subject indexes make it doubly approachable — Author-wise as well as keyword-wise which are derived from the titles arranged crop-wise.

5.8 Works under compilation

The Bibliography on Floriculture and Pesticides is in progress which will be sent to press in a few months. The compilation of Abstracts of Literature on Sugarcane, Seed Sciences & Technology and Farm management have been started. This will go to press in 1983. Plans to compile the abstracts of literature on cotton and groundnut are now under active consideration. Abstracts of literature on all fruit crops on the lines of Grape Research will be compiled soon.

6. CONCLUSION

It has taken 6 years for collecting 24,747 references and 5,020 abstracts on 12 subjects of agriculture and to publish 7 projects. This is only about the Indian agrobiological work. At this stage the author can neither claim the comprehensiveness of these works nor can write, at least the attempt is partially comprehensive. This is only a human effort. This may be a parameter to assess the amount of Indian work published and unpublished. The following conclusions may be drawn from the experiences.

1) There is great scope and also necessity for making available the entire Indian work at one place in a quickly retrievable form.

2) Fruitful solutions could be worked out if librarians and scientists join together to perform this job.

3) Indian publishing trade has also a very good potential in the publishing and marketing of documentation projects of reference value.

REFERENCES

