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An Assessment of Agricultural University Library and Information Services in Northern State of India

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ABSTRACT: Agriculture plays a significant role in Indian economy and its University also has a great involvement in agricultural education, research and has justified the speculation of public funds on them as they have solved the problem of food and hunger. This paper describes the role of agriculture university libraries and information services in Northern state of India in higher education and research of Engineering, Science and Technology. In this paper, we study a random sample of fourteen agricultural university libraries and their role in the distribution of agricultural information to agricultural information seekers in Northern India. An assessment of the assemblage and services presented publicized that agricultural libraries in Northern India circulated information to seekers generally through document loan and reference services. Provision of photocopying and current computer assisted information services, which would expedite information dissemination, remains a scarcity.

KEYWORDS: Agriculture library, Information Services, Technology, Higher education, Indian economy.

I. INTRODUCTION

Agricultural education, research, and extension are three of the essential services that an agricultural university must provide for a country's agricultural development. Research evolves new ideas and new techniques, extension assists farm people to put into practice the products of research and education provide trained personnel for all agricultural development, including research and extension.[1] The three services constitute the framework in which the university effort, including ICAR technical assistance, can work to benefit the farming community. Whether such effort is utilised in the most effective and economic way depends on the organization and administration of these services, which are closely interrelated. In India agricultural education is on the threshold of a new era. This new era defines the parameters in which university libraries are to function for the foreseeable future. A very serious concern for those libraries that serve the major research oriented universities is the continuance of their capacities to provide adequate information resources for academic research. Need for bibliographic control of doctoral and post-doctoral research potential is being felt more and more. As expansion of agricultural education goes forward following economic improvement and as science, technology and trade develop in the same way the quantity of research work also increases every year, interdisciplinary overlapping has opened up new fields of research. In view of this situation, it is necessary that the researcher knows what has already been done in his field of research. He should know what type of data have already been collected and what theories, based on that data, have been propounded. Transfer of research results from laboratories to fields through library will keep alive the hopes of the nation.

II. OBJECTIVES OF THE STUDY

Modern agricultural university libraries are characterized by those objectives that stress the importance of rendering the maximum library and information services to agricultural research, teaching, learning and extension. A major objective of the present study is 'A Critical Assessment of Agricultural Universities in India for Library and Information Services: Special Reference to Northern India'. The subsequent are the other objectives of the study:

1. To ascertain the types of library and information services required by the users i.e. Post Graduate Students, Research Scholars and Faculty Members of the agricultural universities in North India;
2. To recognize the needs of users information of the agricultural universities in North India;
3. To elicit opinions about the library and information services and other facilities offered by the library;



4. To provoke opinions about the problems faced by the users in exploiting the assistances of library information resources and services;
5. To accumulate opinions about the acceptability of several kinds of information resources and their usage of the agricultural universities in North India;
6. To evaluate the awareness along with usefulness of library and information services in functioning teaching, learning and research programmes;
7. To measure the efficacy of library and information services accessible through National and International agricultural information system;
8. To discover that how comprehensively the information services are used and to know whether there are some services that were not used at whole;
9. To recognize the deficiencies or weaknesses of agricultural university libraries in accumulating, uniting and publicising agricultural information;
10. To inspect the nature or activity of search done by users for present information of the agricultural university libraries in North India;
11. To inspect what amount the information sources and services used by the users via internet and web-based information; and
12. Lastly, to assess the library and information services and to recommend appropriate constructive recommendations to the library authorities to overwhelmed the problems and to develop upon the state of affairs for the assistance of the users satisfaction.[2]

III. METHODOLOGY

There have been many methods and techniques are available for data collection. Among them questionnaire survey is found to be very useful techniques for collecting data relating to the users and their information needs. So the survey method is adapted for the present study, which can be applied for collecting data. Generally the Research Design, Data Collection methods are historical analysis, literature survey, literature search, questionnaire method, interview method, observation method, Delphi techniques etc., were applied.

Research Design

The completion of research work is associated with a series of actions or steps. These include formulating the research problem; comprehensive review of the available literature; defining the scope of the study and its limitations; development of a hypothesis; collection, processing and analyzing of data; and finally enumerating inferences and conclusion. Formulating the problem facilities discerning the data that is relevant and useful from the irrelevant and useless data. Data collection assumes the greatest importance in the whole process since it deals with the collection of both qualitative and quantitative information about the research problem in terms of facts and figures. For this study data has been collected through various methods on different aspects of the subject including a) Historical Analysis, b) Literature Survey and c) Questionnaire Survey followed by personal interview. The first two methods have been used to collect textual data from published and unpublished documents; the questionnaire method has been used to solicit information from Post Graduate Students, Research Scholars and Faculty Members of Five Agricultural Universities of Northern Part of India. Thus the data collected includes both primary raw data and secondary data.

Data Collection

The section briefly discusses the data collection methods used in the present study:

Historical Analysis

History is an account of some past events or a combination of events. Therefore, historical analysis is a method used to find what happened in the past from the records and accounts. This method is useful particularly in evaluative qualitative studies. This method has been used to trace the origin, growth and development of each university library information sources relating to the history and development of libraries. In this process annual report, statistics and records maintained by the libraries have been used.



Literature Survey

An extensive survey of published literature in the field of evaluation of library and information services has been made before and after the formulation of the research problem. This has facilitated in finding out the type of data available for undertaking research problem and it also helps to know whether the scope of the problem is delimited keeping in view of the magnitude of the problem. Further, the review of literature has also helped in anticipating the difficulties that may be encountered during the course of the study.

Questionnaires Survey

The questionnaire method is most frequently used technique for collecting data relating to users and their need. Hence the survey has been undertaken with the help of questionnaires designed for this purpose. A majority of the questions were structured with multiple choices to tick appropriate answers. Such questionnaires enhance the response, as they are easy to fill in, consume minimum time and also facilitate efficient, objective and easy analysis of data tabulation and scoring.[2]

Chi-Square Test

Chi-square test is a nonparametric test used for two specific purpose: (a) To test the hypothesis of no association between two or more groups, population or criteria (i.e. to check independence between two variables); (b) and to test how likely the observed distribution of data fits with the distribution that is expected (i.e., to test the goodness-of-fit). It is used to analyze categorical data (e.g. male or female patients, smokers and non-smokers, etc.), it is not meant to analyze parametric or continuous data (e.g., height measured in centimeters or weight measured in kg, etc.).[3]

A chi-squared test, also written as χ^2 test, is a statistical hypothesis test that is valid to perform when the test statistic is chi-squared distributed under the null hypothesis, specifically Pearson's chi-squared test and variants thereof. Pearson's chi-squared test is used to determine whether there is a statistically significant difference between the expected frequencies and the observed frequencies in one or more categories of a contingency table. In the standard applications of this test, the observations are classified into mutually exclusive classes. If the null hypothesis that there are no differences between the classes in the population is true, the test statistic computed from the observations follows a χ^2 frequency distribution. The purpose of the test is to evaluate how likely the observed frequencies would be assuming the null hypothesis is true. Test statistics that follow a χ^2 distribution occur when the observations are independent and normally distributed, which assumptions are often justified under the central limit theorem. There are also χ^2 tests for testing the null hypothesis of independence of a pair of random variables based on observations of the pairs. Chi-squared tests often refers to tests for which the distribution of the test statistic approaches the χ^2 distribution asymptotically, meaning that the sampling distribution (if the null hypothesis is true) of the test statistic approximates a chi-squared distribution more and more closely as sample sizes increase. The chi – square test is a useful measure of comparing experimentally obtained results with those of the expected theoretically. It is used as a test statistic in testing a hypothesis and provides a set of theoretical frequencies with which observed frequencies are compared. Chi- square test is applied to those problems in which we study whether the frequency with which a given event has occurred, is significantly different from the one as expected theoretically. This measure enables us to find out the degree of discrepancy between the observed and expected frequencies. It determines whether the discrepancy so obtained is due to error of sampling or due to chance. [4]

Chi (χ) is a letter of Greek language. Helmer has invented χ^2 - distribution in 1875 and χ^2 - test was first developed and used by kart Pearson in 1900. It is defined as

$$X^2 = \text{Summation } (O_i - E_i)^2 / E_i$$

Where, O_i = Observed frequency of ith event

E_i = Expected frequency of ith event

Steps to Calculate Chi-squared Test:

The following steps are required to calculate the value of chi-square;

1. Calculate all the expected frequencies i.e. E_i for all the values of $i= 1, 2, 3, \dots, n$.
2. Take difference of each observed frequency (O_i) and the corresponding expected frequency (E_i) for each value of i i.e. find ($O_i - E_i$)

3. Square the difference for each value of i , i.e. calculate $(O_i - E_i)^2$
4. Divide each square difference by corresponding expected frequency i.e. calculate $(O_i - E_i)^2 / E_i$ for all the values of $i = 1, 2, 3, \dots, n$.
5. Add all these quotients obtained in step 4,
then $X^2 = \text{Summation } (O_i - E_i)^2 / E_i$ is the value of chi – square.

Properties of Chi-squared Test:

- (a) Value of x^2 is always positive as each pair is squared.
- (b) x^2 lies between 0 and infinity.
- (c) Significance test on x^2 is based on one-tailed test of the right hand side of standard normal curve.
- (d) x^2 is a statistic and not a parameter and hence it does not involve any assumption about the form of original distribution from which the observation has come.

IV. LIBRARY AND INFORMATION SERVICES

Libraries, since ages, have stored materials that enable ideas, knowledge and experiences to be passed on from generation to generation. Libraries build collections tailored to the needs and goals of the organizations they serve. For example, academic libraries, build collections for students, teachers and researchers. This collection is systematically organized by the library for use by the users. The library collection serves as an important resource in education, work, and recreation of millions of people.[15] Earlier libraries were considered merely storehouses of knowledge, and the librarian a custodian of the collection. Users were expected to use the libraries on their own. Librarians concentrated more on the collection development and maintenance of the library rather than promoting its use. Present day libraries are different. These are considered as educational and service institutions. Here librarians not only organize the collection, but provide assistance to library users in various ways, to support learning, interest and other vocation related activities. The assistance and services provided by the librarians can be broadly grouped as reference and information services. These services promote the use of library material, connect the users with the library resources and meet the information needs of the users. In this lesson, you will learn about reference and information services offered by different types of libraries and need and importance of these services.

Objetives of Library Services

- Explain the need and importance of services offered by a library;
- List out the types of services offered by libraries, i.e. essential and desirable;
- Describe various essential services;
- Identify and discuss various desirable services; and [16]
- Elaborate upon the types of services offered by academic, special and public libraries

Information Needs

Information is crucial for all our activities. People need information for study, research, for pursuing their careers, health care, problem solving, recreation and lifelong learning. Everybody needs information for some purpose or the other. For example, students need information to supplement their textbook studies and for project work. Teachers need information for teaching and research. Professionals (doctors, engineers, consultants, etc.) need information to pursue their careers efficiently. Planners and policy makers need information to frame policies and take correct decisions. Researchers need information to keep upto-date in their areas of research, to find out new areas of research and to solve any research problem. [17] A large number of surveys have been conducted to find out information requirements of all categories of library users. These surveys in general, have identified four types of information needs of the users, such as

- i) Current Information Need,
- ii) Exhaustive Information Need,
- iii) Everyday Information Need, and
- iv) Catching up Information Need.



It is further observed that information needs vary from person to person and a particular person may have different needs at different points of time. When library users need information to keep themselves up-to-date with latest developments in their areas of interest on a regular basis, the need is known as current information need. When a library user wants to have information on a particular topic as exhaustive as possible, the need is known as exhaustive information need. The researchers mainly have this type of information need when they start their research work. Everyday information need is the need for a specific piece of information which users require, generally in their day-to-day activities. The need is generally for factual information, which is normally available in standard reference books. Catching-up Information need arises when a user, who is not conversant with a particular subject field, requires an account of overall development of that subject in a short and compact form.

Library Services

To meet information needs of the users, libraries provide a range of services, which are broadly known as Reference and Information Services. Reference services are concerned with direct personal assistance to the user seeking information. It covers direct services such as assistance to the user in the use of the library and its tools, assistance in searching and locating documents, ready reference and long range reference service, literature search and compilation of bibliography, helping in research etc and indirect services such as selection, organization and maintenance of library material for reference service, and other tasks of reference section such as keeping a record of reference queries, preparation of publicity material, evaluation of reference section etc. Information services are provided in anticipation of various needs of the users of libraries. Current awareness services, indexing and abstracting service, etc. fall under information services. At times, these services are provided on demands from the users. In literature the terms reference service and information service are used synonymously. Some experts refer them as two different kinds of services. The differences are enumerated in the Table 1 below:-

Table 1 : Reference service Vs Information Service

S.No.	Reference Service	Information Service
1	Traditional Service	Non-Traditional Service
2	Emphasis is on providing documents	Emphasis is on providing information
3	User is given the material or directed to locate the material	Attempt is made to provide exact information
4	Aim is to instruct the user	Less concerned with instructing use
5	Service provided on demand	Service provided in anticipation of need
6	Passive service: Library staff provide waits for the user to approach them and make a demand	Active service: Library staff provide service in anticipation to keep user well –informed

Reference and information services may also be broadly grouped into responsive information services and anticipatory information services. Responsive information services, also known as passive information services, are provided in response to the requests from the library users. Anticipatory information services, also known as active information services are provided in anticipation of the needs of the library users.

In order to achieve the above stated objectives with reasonable success, the agricultural university library will have to gear up to provide the following library and information services effectively and efficiently:

1. Acquisition, processing and organization of all kinds of reading materials;
2. Circulation service under which all kinds of reading material may be lent out to users;
3. Provision of regular reference service in answering users queries, giving user education, etc.
4. Provision of library and information services such as indexing and abstracting services, bibliographical services, current awareness services, etc.

With the growth and development of agricultural university libraries in India some such essential services as



circulation services, reference services, etc. were introduced. However, with the proliferation of all types of literature, spread of higher education, more user awareness, etc. these services became inadequate to cope with new and increasing demands.

V. ANALYSIS AND INTERPRETATION OF DATA

The development of research in fields of agricultural and production improvement essentially requires timely supply of information to scientists related to agricultural industry. The food production self-sufficiency is not probable to accomplish without the supply of adequate information to agricultural scientists.

The absorption of efforts is almost certainly effectual in apprising agricultural scientists of enhanced approaches in agriculture. It also comprises an unfortunate provincialism distressing both the agricultural scientists and the Information Industry. To stimulate an operative working relationship among research workers who produce novel agricultural acquaintance and farmers whose outlook in need of such acquaintance, the information system acts as 'middle-man' in a situation to convey such knowledge to the obligatory points of dispersal. The sources of agricultural information are wide-ranging in benevolent and extensively scattered in location with similarly widespread distribution. In the similar way, agricultural information users are also similarly scattered. To conduit this gap, we requisite a system related to agricultural information. As far as the organization of the agricultural information service is apprehensiveness, we should reminisce that in this complex world it is not probable for any distinct agricultural library to meet the thorough information requirements of the users. The user's requirements are becoming more and more miscellaneous in the quantities and qualities. We also select time factor as pressure on the source of agricultural information. There is also an imperious prerequisite for widening information exposure, encompassing the sphere of services and quickening the speed in the supply of information. It is indispensable to form the obligatory information infrastructure for agricultural scientists inside the state and nation. This is predominantly relevant in the context of 'food for everyone'. In quest of scientific superiority, agricultural information organization is compulsory and agricultural information service aptitude keeps track of the newest scientific, agricultural and technological progression over the world.

Thus a university library must have scientifically organized and effectively administered library with all required reading materials in sufficient numbers, so that it becomes an intellectual hub of the university. The university library is not merely a storehouse of books and non-book materials and preservation of them, but it is a dynamic instrument of education. For this it should maintain co-operation between different faculties and staff to promote effective use of the library. If the collection is to be used in the library, there should be good catalogues, aids and guides. It would be a great drawback if there were no sound catalogue. Apart from the catalogues, there should be a reference librarian to pick literature available in the library. University Library, to demonstrate its usefulness, its ability for speedy service must employ reference personnel.

GENERAL INFORMATION IN AGRICULTURAL UNIVERSITY LIBRARIES IN NORTH INDIA

Table 2: Agricultural University in North India

Name of the Agricultural University	Abbreviations	Year of Establishment	Location
Indian Agricultural Research Institute	IARI	1911	Delhi
Chaudhary Charan Singh Haryana Agricultural University	CCSHAU	1970	Hisar
Maharana Pratap Horticultural University	MHU	2016	Karnal
Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishwavidyalaya	CSK HPKV	1978	Palampur
Dr. Yashwant Singh Parmar University of Horticulture and Forestry	YSPUHF	1978	Solan
Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir	SKUAST-K	1982	Srinagar
Punjab Agricultural University	PAU	1962	Ludhiana

Banda University of Agriculture and Technology, Banda	BUAT	2010	Banda
Chandra Shekhar Azad University of Agriculture and Technology	CSAUK	1975	Kanpur
Narendra Deva University of Agriculture and Technology	NDUAT	1974	Faizabad
Rani Lakshmi Bai Central Agricultural University	RLBCAU	2014	Jhansi
Sardar Vallabhbhai Patel University of Agriculture and Technology	SVPUAT	2000	Meerut
G. B. Pant University of Agriculture and Technology	GBPUAT	1960	Pantnagar
Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry	VCSG	2011	PauriGarhwal

To know growth and establishment of agricultural university libraries in north India under the study, respondents were requested to provide the year of establishment of their libraries. The collective respondents are given in Table-2 for necessary statistical interpretation. It is observed from the table that Indian Agricultural Research Institute, Delhi were established in the year 1911, and they are found to be the oldest universities under the study, followed by G. B. Pant University of Agriculture and Technology, Pantnagar was established in the year 1960, Punjab Agricultural University, Ludhiana was established in 1962, Chaudhary Charan Singh Haryana Agricultural University, Hisar was established in 1970, Narendra Deva University of Agriculture and Technology, Faizabad, was established in 1974, Chandra Shekhar Azad University of Agriculture and Technology, Kanpur was established in 1975, Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishvavidyalaya, Palampur and Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Solan was established in 1978, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Srinagar was established in 1982, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut was established in 2000, Banda University of Agriculture and Technology, Banda, Banda was established in 2010, Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry, PauriGarhwal was established in 2011, Rani Lakshmi Bai Central Agricultural University, Jhansi was established in 2014 and finally Maharana Pratap Horticultural University, Karnal, was established in 2016.

Table-3: Total Strength and Membership of the Users of Agricultural University Libraries in North India

Name of the University	UG	PG	Research Scholars	Faculty Members	Administrative Staff	Total Members
IARI	733	332	894	354	512	2825
CCSHAU	785	350	453	324	432	2344
MHU	224	142	114	153	225	858
CSK HPKV	665	267	537	298	367	2134
YSPUHF	621	287	412	257	336	1913
SKUAST-K	523	432	336	242	312	1845
PAU	812	631	647	324	421	2835
BUAT	367	297	265	221	301	1451
CSAUK	635	456	358	297	332	2078
NDUAT	585	397	286	232	335	1835
RLBCAU	285	187	167	164	205	1008
SVPUAT	305	215	167	189	215	1091
GBPUAT	771	632	542	335	432	2712
VCSG	316	226	187	175	326	1230

It is observed from the table 3 that Indian Agricultural Research Institute, Delhi has total no. of 2825 users followed by 2344 users in Chaudhary Charan Singh Haryana Agricultural University, Hisar. 2835 users in Punjab Agricultural University, Ludhiana, 1835 users in Narendra Deva University of Agriculture and Technology, Faizabad, 2078 users in

Chandra Shekhar Azad University of Agriculture and Technology, Kanpur, 2134 users in Chaudhary Sarwan Kumar Himachal Pradesh KrishiVishvavidyalaya, Palampur, 1913 users in Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Solan, 1845 users in Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Srinagar, 1091 users in SardarVallabhbbhai Patel University of Agriculture and Technology, Meerut, 1451 users in Banda University of Agriculture and Technology, Banda, 1230 users in Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry, PauriGarhwal, 1008 users in Rani Lakshmi Bai Central Agricultural University, Jhansi and finally 858 users in MaharanaPratap Horticultural University, Karnal. . The users comprises of Under Graduate Students and Post Graduate Students, Research Scholars, Teaching Faculty and other Administrative Staff.

Information Source in Agricultural University Libraries in North India

The foundation of a library is its collection and it forms a sound foundation for wide and varied efficient services. Today collection development policy is totally based on user requirements. Keeping in view the changing needs of the users, the libraries are required to develop their resources and services appropriately. In order to ascertain different types of collections of agricultural university libraries, the respondents were requested to describe major types of collection in the library. The collective responses are depicted in the Table-4 for further analysis.

Table-4 : Information Source Collection details of Agricultural University Libraries in North India

Name of the University	Books	Periodicals	Bound Volumes	Theses and Dissertations	Reports	Electronic sources
IARI	1,32,000	28500	7,683	15,160	2,21,600	2380
CCSHAU	2,02,436	96,628	1,802	9,577	377	151
MHU	4126	456	271	221	76	24
CSK HPKV	58,686	236	30,280	4,717	125	600
YSPUHF	50650	17658	30579	5507	515	248
SKUAST-K	43050	19311	7135	785	9337	11
PAU	262912	104941	6177	40612	2794	336
BUAT	9236	4201	370	621	153	76
CSAUK	64300	4481	1436	474	1903	316
NDUAT	59450	3786	1557	3560	1716	76
RLBCAU	34526	4231	1126	2231	1209	46
SVPUAT	11951	1252	359	153	56	16
GBPUAT	7956	657	252	126	47	25
VCSG	5631	936	136	112	34	46

From Table-4 it is noted that, all the agricultural university libraries under the study have given data on library collection. Among these universities, Punjab Agricultural University, Ludhiana has largest collection of 2,62,912 books, 104941 periodical and 40612 thesis and dissertations. Further it is noted Chaudhary Charan Singh Haryana Agricultural University, Hisar, Library is having 2,02,436 books, 96,628 periodical and nearly 9577 thesis and dissertation, on the other hand Indian Agricultural Research Institute, Delhi is having 1,32,000 books, 28500 periodical and nearly 15,160 thesis and dissertation, Chandra Shekhar Azad University of Agriculture and Technology Library, Kanpur under the study is having less collection is 64300 books, 4481 periodical and 474 thesis and dissertations. Next Chaudhary Sarwan Kumar Himachal Pradesh KrishiVishvavidyalaya Library, Palampur is having 58,686 books, 236 periodicals and 4,717 thesis and dissertations.

Apart from the books, back volumes and reports all the libraries under the study are subscribing journals for the benefits of their users. The Indian Agricultural Research Institute Library, Delhi has subscribing a large number of reports (2,21,600) followed by Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir Library, Srinagar 9337, Punjab Agricultural University Library, Ludhiana 2794, Chandra Shekhar Azad University of Agriculture and Technology Library, Kanpur 1903 and Rani Lakshmi Bai Central Agricultural University, Jhansi 1209 respectively. Other university also has reports but they are less than the above university. Further it is noted from the

analysis that all the agricultural science university libraries are having electronic resources in their libraries. Indian Agricultural Research Institute Library, Dis having large number of electronic sources that is 2380, followed by Chaudhary Sarwan Kumar Himachal Pradesh KrishiVishvavidyalaya Library, Palampur 600, Punjab Agriculture University Library, Ludhiana 336, Chandra Shekhar Azad University of Agriculture and Technology Library, Kanpur 316 and Dr. Yashwant Singh Parmar University of Horticulture and Forestry Library, Solan 248 respectively.

Table-5 Recommendation of Books and Journals for Agricultural University Libraries in North India

Name of the Universities	Chairman	Faculty	Research Scholars	Students	Selection Committee	Percentage
IARI	Yes	Yes	Yes	Yes	Yes	100%
CCSHAU	Yes	Yes	No	No	No	40%
MHU	Yes	Yes	No	Yes	No	60%
CSK HPKV	Yes	Yes	Yes	Yes	Yes	100%
YSPUHF	Yes	Yes	No	Yes	Yes	60%
SKUAST-K	Yes	Yes	Yes	Yes	Yes	100%
PAU	Yes	Yes	Yes	Yes	Yes	100%
BUAT	Yes	Yes	No	No	No	40%
CSAUK	Yes	Yes	Yes	Yes	Yes	100%
NDUAT	Yes	Yes	Yes	No	Yes	80%
RLBCAU	Yes	Yes	Yes	Yes	No	80%
SVPUAT	Yes	Yes	No	No	No	40%
GBPUAT	Yes	Yes	No	Yes	No	60%
VCSG	Yes	Yes	Yes	No	Yes	80%

In this regard we ask the librarian about who recommends the books and journals for the library, the information collected is tabulated and presented in Table-5. It is observed from the table that in Indian Agricultural Research Institute, Delhi, Chaudhary Sarwan Kumar Himachal Pradesh KrishiVishvavidyalaya, Palampur, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Srinagar, Punjab Agricultural University, Ludhiana and Chandra Shekhar Azad University of Agriculture and Technology, Kanpur all the users such as Chairman of the Department, Faculty Members, Research Scholars, Students and selection committee recommending the books, which are needed by them. As for as Narendra Deva University of Agriculture and Technology Library, Faizabad, Rani Lakshmi Bai Central Agricultural University Library, Jhansi and Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry Library, PauriGarhwal is concern only Chairman and Faculty Members and research scholars are recommending the books and journals. In MaharanaPratap Horticultural University Library, Karnal, Dr. Yashwant Singh Parmar University of Horticulture and Forestry library, Solan and G. B. Pant University of Agriculture and Technology library, pantnagar Chairman, Faculty Members and students were given chance to recommend the needed documents for the library. Whereas a Chaudhary Charan Singh Haryana Agricultural University Library, Karnal, Banda University of Agriculture and Technology, Banda library, Banda and SardarVallabhbbhai Patel University of Agriculture and Technology library, Kanpur again only Chairman and Faculty Members were selecting and recommending the reading materials to the library.

Table-6 indicates that the mode of procurement of reading materials in agricultural university libraries under the study. It is observed from the table that Indian Agricultural Research Institute Library, Delhi, Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Solan, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Srinagar, Narendra Deva University of Agriculture and Technology, Faizabad, Rani Lakshmi Bai Central Agricultural University, Jhansi is a procuring book from both vendors and publishers, as for as Govt. and university publications it purchased directly from the concern institutions. For Indian journals its subscribesthroughpublishersandfor



foreign journals it goes for vendors. On the other hand it is observed that as for as books are concerned Chaudhary Charan Singh Haryana Agricultural University Library, Hisar, Punjab Agricultural University Library, Ludhiana, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut is procuring through publishers. Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishvavidyalaya, Palampur, Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Solan, Chandra Shekhar Azad University of Agriculture and Technology, Kanpur, Narendra Deva University of Agriculture and Technology, Faizabad and Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry, Pauli Harwal is procuring through vendors. Most of the university is procuring through direct procuring and through vendors. As for as university publications and Govt. publications are concerned all the university libraries, Chandra Shekhar Azad University of Agriculture and Technology, Kanpur and Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry, Pauri Garwal it get these publications, either through exchange or free of cost. As for as subscription of journals are concerned all the university libraries are subscribing Indian journals through their concerned publishers, but these libraries subscribe foreign journals through vendors.

Table-6 Books and Journals Procurement in Agricultural University Libraries in North India

Type of Document and Journals Procurement	Librarians Response in Agricultural University Libraries about Mode of Purchase													
	IARI	CCSH AU	MHU	CSKHP KV	YSPU HF	SKUA ST-K	PAU	BUAT	CSAUK	NDU AT	RLBCA U	SVPU AT	GBPU AT	VCSG
Indian Books	Vendors/Publishers	Through Publishers	Book Vendors	Direct Purchasing	Vendors/Publishers	Vendors/Publishers	Through Publishers	Book Vendors	Direct Purchasing	Vendors/Publishers	Vendors/Publishers	Through Publishers	Book Vendors	Direct Purchasing
Foreign Books	Local Book Sellers	Through Publishers	Book Vendors	Vendors	Vendors	Local Book Sellers	Through Publishers	Book Vendors	Vendors	Vendors	Local Book Sellers	Through Publishers	Book Vendors	Vendors
University Publications	Direct	Direct	Direct	Membership/Exchange	Direct	Direct	Direct	Direct	Membership/Exchange	Direct	Direct	Direct	Direct	Membership/Exchange
Govt. of India Publications	Direct	Direct	Direct	Free of Cost	Direct	Direct	Direct	Direct	Free of Cost	Direct	Direct	Direct	Direct	Free of Cost
Indian Journals	Through Publishers	Through Publishers	Through Publishers	Through Publishers	Through Publishers	Through Publishers	Through Publishers	Through Publishers	Through Publishers	Through Publishers	Through Publishers	Through Publishers	Through Publishers	Through Publishers
Foreign Journals	Vendors	Vendors	Vendors	Vendors	Vendors	Vendors	Vendors	Vendors	Vendors	Vendors	Vendors	Vendors	Vendors	Vendors

Table-7 Number of Computers and Hardware’s Availability in Agricultural University Libraries in North India

Hardware Availability	IARI	CCS HA U	MHU	CSKH PKV	YSPUH F	SKU AST- K	PAU	BUA T	CSAU K	NDUA T	RLBC AU	SVPUA T	GBP UAT	VCS G
Computer System	15	13	13	14	15	14	13	14	15	14	13	12	14	13
Servers	2	1	1	1	2	1	1	1	2	1	1	1	1	1
Drives	CD	15	15	8	15	8	12	15	8	12	8	12	8	12
	DVD	2	1	1	2	1	1	1	1	1	1	1	1	1
Printers	5	3	2	4	3	4	3	2	4	2	3	4	3	2
Barcode Readers	2	1	1	1	1	2	2	1	1	1	1	1	1	1

The hardware availability in the agricultural university libraries under the study is depicted in Table-5.8. It is observed from the table that Indian Agricultural Research Institute Library, Delhi has 15 computer systems, 2 server, 15 CD and 2 DVD Drives also. Further, it is analyzed that it has 5 printers including laser printer and dot matrix printer. The Indian Agricultural Research Institute Library, Delhi is also having barcode readers.

Further, it is observed from the table that Chaudhary Charan Singh Haryana Agricultural University Library, Hisar has 13 computer systems, 1 server and all the systems are 15 CD, 1 DVD Drives. There are 3 printers of which are 2 Dot-Metrics and 1 Laser printers. It also has 1 bar code readers.

MaharanaPratap Horticultural University Library, Karnal, has 13 computer systems. It maintains 1 server in the library and 8 systems has CD-Drives and 1 system has DVD Drive. It has 2 printers of which 1 are Dot-Metrics and 1 Ink-Jet and 1 bar code reader.

Chaudhary Sarwan Kumar Himachal Pradesh KrishiVishvavidyalaya Library, Palampur, has 14 computer systems. It maintains 1 server in the library and 15 systems has CD-Drives and 1 system has DVD Drive. It has 4 printers of which 2 are Dot-Metrics, 1 laser and 1 Ink-Jet and 1 bar code reader.

Dr. Yashwant Singh Parmar University of Horticulture and Forestry Library, Solan has 15 computer systems. It maintains 2 server in the library and 15 systems has CD-Drives and 1 system has DVD Drive. It has 3 printers out of which 1 are Dot-Metrics, 1 laser and 1 Ink-Jet and 1 bar code reader.

Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Srinagar has 14 computer systems. It maintains 1 server in the library and 12 systems has CD-Drives and 1 system has DVD Drive. It has 4 printers out of which 2 are Dot-Metrics, 1 laser and 1 Ink-Jet and 1 bar code reader.

Punjab Agricultural University library, Ludhiana has 13 computer systems. It maintains 1 server in the library and 12 systems has CD-Drives and 1 system has DVD Drive. It has 3 printers out of which 2 are Dot-Metrics and 1 Ink-Jet and 1 bar code reader.

Further, it is observed from the table that Banda University of Agriculture and Technology, Banda Library, Banda has 14 computer systems, 1 server and all the systems are 15 CD, 1 DVD Drives. There are 2 printers of which are Dot-Metrics and Laser printers. It also has 1 bar code readers.

Chandra Shekhar Azad University of Agriculture and Technology Library, Kanpur has 15 computer systems. It maintains 2 server in the library and 8 systems has CD-Drives and 1 system has DVD Drive. It has 4 printers of which 2 are Dot-Metrics, 1 laser and 1 Ink-Jet and 1 bar code reader.

Narendra Deva University of Agriculture and Technology Library, Faizabad has 14 computer systems. It maintains 1 server in the library and 12 systems has CD-Drives and 1 system has DVD Drive. It has 2 printers of which 1 are Dot-Metrics and 1 Ink-Jet and 1 bar code reader.

Rani Lakshmi Bai Central Agricultural University Library, Jhansi, has 13 computer systems. It maintains 1 server in

the library and 8 systems has CD-Drives and 1 system has DVD Drive. It has 3 printers of which 1 are Dot-Metrics, 1 laser and 1 Ink-Jet and 1 bar code reader.

SardarVallabhbhai Patel University of Agriculture and Technology Library, Meerut, has 12 computer systems. It maintains 1 server in the library and 12 systems has CD-Drives and 1 system has DVD Drive. It has 4 printers of which 2 are Dot-Metrics, 1 laser and 1 Ink-Jet and 1 bar code reader.

G. B. Pant University of Agriculture and Technology Library, Pantnagar has 14 computer systems. It maintains 1 server in the library and 8 systems has CD-Drives and 1 system has DVD Drive. It has 4 printers of which 1 are Dot-Metrics, 2 laser and 1 Ink-Jet and 1 bar code reader.

Further, it is observed from the table that Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry Library, PauriGarhwal has 13 computer systems, 1 server and all the systems are 12 CD, 1 DVD Drives. There are 3 printers of which are 2 Dot-Metrics and 1 Laser printers. It also has 1 bar code readers.

Table-8 Software Packages Installed in Agricultural University Libraries in North India

Software Packages Available	IARI	CCS HAU	MHU	CSKH PKV	YSPUH F	SKU AST-K	PAU	BUAT	CSAU K	NDUAT	RLBCA U	SVPUA T	GBP UAT	VCS G
Operating Systems	MS-DOS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Windows	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Windows NT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	UNIX	No	No	No	No	No	No	No	No	No	No	No	No	Yes
	LINUX	No	No	No	No	No	No	No	No	No	No	No	No	No
	FOXPRO	No	No	No	No	No	No	No	No	No	No	No	No	No
General Purpose Software Packages	MS-OFFICE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	DBase	No	No	No	No	No	No	No	No	No	No	No	No	No
Name of the Software used Library Automation Purpose	SOUL	No	No	No	No	No	No	No	No	No	No	No	No	Yes
	LIBSYs	No	No	No	No	No	No	No	No	Yes	No	No	No	No
	IMLS	No	No	No	No	No	No	No	Yes	No	No	No	No	No
	CDS/ISIS	No	No	No	No	No	Yes	No	No	No	No	No	Yes	No

Response about the software packages used by the agricultural university libraries under the study is depicted in Table-8. It clearly shows that all the university libraries have operating system and general-purpose software like MS-Office, CDS/ISIS, SOUL etc. However, it is very interesting to note here that most of the agricultural library of northern India uses MS-DOS, Windows and Windows NT operating system and MS-OFFICE. While only Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry, PauriGarhwal uses the UNIX operating system and SOUL software using MS-DOS, Windows, and Windows NT. The Narendra Deva University of Agriculture and Technology, Faizabad uses the LIBSYs software for the automation system, Banda University of Agriculture and Technology, Banda, Banda uses the IMLS automation system for the processing and Punjab Agricultural University, Ludhiana and Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry, PauriGarhwal both uses the CDS/ISIS automation software for processing the information or data.

Table 9: Software Packages Installed in Agricultural University Libraries in North India

Areas of Library Automation	Librarians Response in Agricultural University Libraries about Relevant Activities														
	IAR I	CCS HAU	MHU	CSKH PKV	YSPU HF	SKUA ST-K	PAU	BUAT	CSAU K	NDU AT	RLBCA U	SVPU AT	GBPUA T	VCS G	
Book ordering	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Library catalogue	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Circulation control	Yes	No	No	No	Yes	No	Yes	Yes	Yes	No	No	No	No	Yes	
Series control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Preparing for Database	Yes	No	No	No	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	
CD-ROM Database Service	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	
Internet service	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	No	

Table-9 clearly demonstrates the data about the library-automated areas of the agricultural university libraries under the study. It is observed from the study that Indian Agricultural Research Institute Library, Delhi, Punjab Agricultural University Library, Ludhiana and Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Solan are automated the following section of the library such as, Book ordering, library catalogue, circulation control, series control creation of databases, CD-ROM databases and Internet services. Chaudhary Charan Singh Haryana Agricultural University Library, Hisar library is automated book ordering section, Library catalogue, series control and CD-ROM databases. On the otherhand Maharana Pratap Horticultural University Library Karnal is automated the sections such as book ordering, library catalogue, serials control, circulation, CD-ROM databases. Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir library, Srinagar are automated the following section of database such as Book ordering, library catalogue, series control creation of databases, and Internet services. Banda University of Agriculture and Technology library, Banda such as, Book ordering, library catalogue, circulation control, series control creation of databases and CD-ROM databases. Chandra Shekhar Azad University of Agriculture and Technology library, Kanpur are automated the following section of the library such as Book ordering, library catalogue, circulation control, series control CD-ROM databases and Internet services. Narendra Deva University of Agriculture and Technology library, Faizabad are automated the following section of the library such as Book ordering, library catalogue and series control. Rani Lakshmi Bai Central Agricultural University library, Jhansi are automated the following section of the library such as Book ordering, library catalogue, series control creation of databases, CD-ROM databases and Internet services. Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut such as Book ordering, library catalogue, series control creation of databases, CD-ROM databases and Internet services. G. B. Pant University of Agriculture and Technology library, Pantnagar are automated the following section of the library such as Book ordering, library catalogue, Series control, CD-ROM databases and Internet services. Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry library, Pauri Garhwal such as, Book ordering, library catalogue, circulation control, series control and CD-ROM databases.

5.1 Technical Services In Agricultural University Libraries In North India

According to Lancaster, “technical services are the inputs and public services (or Readers services as they are popularly known) are the outputs. Technical Services include selection, ordering, receiving, cataloguing, classification, indexing, abstracting, physical preparation, binding and repair.”²

Library Classification in Agricultural University Libraries in North India

Classification is deliberated the most significant among the dissimilar technical services carried out in a library. It acts as a recovery tool. Twin process of ‘marking and parking’ is done with the help of classification. The massive gathering of a university library is divided subject-wise with the help of classification outline. There are numerous general classification outlines like, Universal Decimal Classification, Library of Congress Classification, Dewey Decimal Classification, Subject Classification, Expansive Classification, Colon Classification, Bibliographic Classification, and Rider’s International Classification..

Table 10 Library Classification Schemes Used in Agricultural University Libraries in North India

Name of the Universities	CC	DDC	UDC	LC
IARI	-	Yes	-	-
CCSHAU	-	Yes	-	-
MHU	-	Yes	-	-
CSK HPKV	-	Yes	-	-
YSPUHF	-	Yes	-	-
SKUAST-K	-	Yes	-	-
PAU	-	Yes	-	-
BUAT	-	-	-	-
CSAUK	-	Yes	-	-
NDUAT	-	Yes	-	-
RLBCAU	-	Yes	-	-
SVPUAT	-	Yes	-	-
GBPUAT	-	Yes	-	-
VCSG	Yes	Yes	-	-
Percentage	20%	80%	00%	00%

Although Colon Classification of SRRanganathan is of Indian origin but Dewey decimal classification is the most widely used scheme in the libraries of agricultural universities in North India as is evident from Table-5.11. It is proposed to study the adoption of various classification schemes and cataloguing codes in the agricultural university libraries under the study. Among the libraries 80% are adopting DDC and Colon Classification is adopted in only one university that is Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry Library, Pauli Garhwal..

Library Cataloguing/OPAC Service in Agricultural University Libraries in North India

Table 11 Library Cataloguing Schemes Used in Agricultural University Libraries in North India

Name of the Universities	Anglo American Cataloguing Rules-11	Classified Catalogue Code	Online Public Access Catalogue
IARI	Yes	Yes	Yes
CCSHAU	-	Yes	Yes
MHU	-	Yes	Yes
CSK HPKV	Yes	Yes	Yes
YSPUHF	-	-	Yes
SKUAST-K	-	Yes	Yes
PAU	-	Yes	Yes
BUAT	-	-	Yes
CSAUK	-	Yes	Yes
NDUAT	-	-	Yes
RLBCAU	Yes	Yes	Yes
SVPUAT	-	Yes	Yes
GBPUAT	-	Yes	Yes
VCSG	Yes	-	Yes
Percentage	30%	70%	100%

The catalogue is a mirror to the library collection. It helps the reader to a more level for easy location of their required information in the library. In the light of these we asked question about which catalogue code is used to prepare the catalogue of their

collection, the collected information is tabulated and presented in Table-11. It is observed from the table that all the university libraries under the study have adopted online public access catalogue, All university of north India except Dr. Yashwant Singh Parmar University of Horticulture and Forestry , Solan, Banda University of Agriculture and Technology, Banda, Banda, Narendra Deva University of Agriculture and Technology , Faizabad and Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry , PauriGarhwal, library adopted the classified catalogue code of Dr. S. R. Ranganathan. Remaining two agricultural university libraries namely Indian Agricultural Research Institute Library, Delhi, Chaudhary Sarwan Kumar Himachal Pradesh KrishiVishvavidyalaya, Palamput , Rani Lakshmi Bai Central Agricultural University, Jhansi and Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry Library, PauriGarhwal are followed by Anglo- American Cataloguing Rules-II.

Books Processing Time in Agricultural University Libraries in North India

Table 12: Books Processing Time Taking in Agricultural University Libraries in North India

Name of the Universities	One Week	Two Weeks	Three Weeks	One Month
IARI	-	Yes		-
CCSHAU	-	Yes		-
MHU	-	Yes		-
CSK HPKV	-	Yes		-
YSPUHF	-		Yes	-
SKUAST-K	-	Yes		-
PAU	-	Yes		-
BUAT	-		Yes	-
CSAUK	-	Yes		-
NDUAT	-		Yes	-
RLBCAU	-	Yes		-
SVPUAT	-	Yes		-
GBPUAT	-	Yes		-
VCSG	-		Yes	-
Percentage	00%	70%	30%	00%

The information about time taken for processing the books is reported on Table-12. It clearly shows that most of the university libraries are taking two weeks to process the newly procured books except the Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Solan, Banda University of Agriculture and Technology, Banda, Banda, Narendra Deva University of Agriculture and Technology, Faizabad, and Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry, PauriGarhwal, whereas these four university libraries are taking three weeks to process the books.



Table-13 Financial Source of the Agricultural University Libraries in North India

Financial Source of the Library	Librarians Response in Agricultural University Libraries about Finance														Percentage
	IARI	CCSH AU	MH U	CSKH PKV	YSPU HF	SKU AST-K	PA U	BUA T	CSA UK	NDU AT	RLBCA U	SVPUA T	GBP UA T	VCS G	
Central Govt.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Nil
State Govt.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100%
Donation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Nil
ICAR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100%
UGC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Nil
World Bank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Nil
UNDP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Nil

As for as source of finance is concerned all the libraries under the study established by their respective state government, and naturally funding agency for all these libraries is state government. The ICAR is a top most body in the field of agriculture education and research. So it also comes forward to provide financial assistance to agricultural university libraries. These two intuitions are the sources of finance for agricultural universities libraries.

5.8 LIBRARYSTAFFINAGRICULTURALUNIVERSITY LIBRARIES IN NORTH INDIA

Manpower is essential for any library to run smoothly. The effectiveness of library as an agency for the diffusion of knowledge depends upon the efficiency of staff. It is the library staff who operate libraries and who form the link between the users of libraries and the graphic records. The staff acts as the guide, philosopher and friend to the readers. And staff acts as the catalytic agent between the books on the one hand and the readers on the other.

Table-14 Existing Library Staff Details in Agricultural University Libraries in North India

Name of the Universities	Professionals	Semi-Professionals	Non – Professionals	Supporting staff	Total Number of Staff
IARI	10	15	9	18	52
CCSHAU	13	12	5	8	38
MHU	5	2	2	5	14
CSK HPKV	12	7	6	8	33
YSPUHF	11	5	3	8	27
SKUAST-K	5	11	8	16	40
PAU	8	15	9	18	50
BUAT	13	12	5	6	36
CSAUK	5	1	2	6	14
NDUAT	9	8	6	5	28



RLBCAU	11	4	4	8	27
SVPUAT	8	15	9	18	50
GBPUAT	13	12	5	6	36
VCSG	5	2	2	6	15

Table-14 clearly stipulates that Indian Agricultural Research Institute, Delhi Library, is having 10 Professionals, followed by 15 Semi-Professionals, 9 Non- Professionals, 18 Supporting Staff. Where as in Chaudhary Charan Singh Haryana Agricultural University, Hisar Library is having 13 professionals, 12 Semi-Professionals, 5 Non- Professionals and 8 Supporting Staff are working. 5 Professionals two each Semi- Professional and Non-Professional and 5 Supporting Staff is working in Maharana Pratap Horticultural University, Karnal. Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishwavidyalaya, Palampur is having 12 Professionals, 7 Semi-Professionals, 6 Non-Professionals and 8 Supporting Staff. Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Solan library is having 11 Professionals, 5 semi-professionals, 3 Non-Professionals and 8 Supporting Staff. Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Srinagar library is having 5 Professionals, 11 Semi-Professionals, 8 Non-Professionals and 16 Supporting Staff. 8 Professionals, 15 Semi- Professional, 9 Non-Professional and 6 Supporting Staff is working in Punjab Agricultural University, Ludhiana. Banda University of Agriculture and Technology, Banda, Banda is having 13 Professionals, 12 Semi- Professional, 5 Non-Professional and 6 Supporting Staff. 5 Professionals, 1 Semi- Professional, 2 Non-Professional and 6 Supporting Staff in Chandra Shekhar Azad University of Agriculture and Technology, Kanpur. Narendra Deva University of Agriculture and Technology, Faizabad library is having 9 Professionals, 8 Semi- Professional, 6 Non-Professional and 5 Supporting Staff. 11 Professionals, 4 Semi- Professional, 4 Non-Professional and 8 Supporting Staff in library of Rani Lakshmi Bai Central Agricultural University, Jhansi. Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut library is having 8 Professionals, 15 Semi- Professional, 9 Non-Professional and 18 Supporting Staff. G. B. Pant University of Agriculture and Technology, Pantnagar library is having 13 Professionals, 12 Semi- Professional, 5 Non-Professional and 6 Supporting Staff. 5 Professionals, 2 Semi- Professional, 2 Non-Professional and 6 Supporting Staff in library of Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry, Pauri Garhwal.

VI. CONCLUSION

Since India is a land of farmers, here Socio-Economic developments depend on the education of the farmers and their information level. They need information to become enlightened and rational so as to take quick and correct decisions to improve the rural life. The nature and efficiency of the information services provided by the agricultural university libraries vary from one to another, owing to the whole range of interest of the user community. However with the emergence of the computer and revolutionary changes in communication technology, it has become possible for a agricultural university libraries to provide a variety of technology based information services to the users community with a wide range of interests, which was not possible earlier. As a matter of fact all these activities and services are interdependent, interrelated and direct towards maximization of the usefulness of the agricultural university library systems. Agricultural university libraries under the study are in the initial stage of development. Modern technologies in the libraries are now being utilized to satisfy the information need of the users. The staffs working in these libraries need training and exposure to new technologies available at national and international levels. There is a need to develop the culture of inter-library loan services and electronic transmission of documents particularly articles. The bibliographical database of these, journal articles and library catalogues must be made available at a website for the use of the users. While disseminating the library and information services to the user community the agriculture university library is able to fulfill its aims and objectives with regards to the promotion of advanced learning and research. Extending the active library services by the university libraries to the users community is a very fundamental factor in attaining the quality in university library service systems. It is an important function of the university library is to collect and preserve the information and then make the some accessible to the users. There is an urgent need to compile and develop an Indian Agricultural Bibliographical Database (IABD). This can be compiled collaboratively by several key institutes like Indian Agricultural Research Institute (IARI), National Dairy Research Institute (NDRI), Indian Veterinary Research Institute (IVRI), Indian Institute of Horticultural Research (IIHR) etc., and the same is made available on web for the better use of the user community. There is an increasing rate of innovation and a rapid development in information technology which results a remarkable change in job qualification and substantial transformation of library structure. Today University libraries face an era of turbulent change, the sources of which are



varied, with some efforts; librarians learnt to cope up with the problems that followed along a reasonable predictable course. A greater challenge so far is to cope with a high speed change subject to frequent alternating in directions, unless librarians learn to manage dramatic change it is not be possible for them to survive in today's competitive and networked environment.

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