Abstract

Successive Five Year Plans have aimed at improving irrigation facilities, encouraging the use of fertilizers, improved varieties of seeds, implements, machinery and institutional credit. As a result, there has been a significant increase in the use of modern inputs leading to higher productivity and production. The agricultural sector occupies a key position in the Indian economy. After independence, the agricultural scenario has changed considerably and agriculture is considered as the main source of India’s economy. India has witnessed significant increase in the production of foodgrains (green revolution), oil seeds (yellow revolution), milk (white revolution), and fruits and vegetables (golden revolution). All this became possible owing to the application of cutting edge science and technology along with positive policy support, and hard work of Indian farmers. The Indian Council of Agricultural Research (ICAR), an apex organization functioning under National Agricultural Research System (NARS), for conducting and coordinating agricultural research, has been at the forefront of these agricultural revolutions in the country, making India not only self-sufficient, but also surplus with food. As a forward looking organization, fully realizing the emerging complex challenges, ICAR has set upon to attain the ‘Rainbow Revolution’ covering the entire spectrum of activities in agriculture which will make India a developed nation.

India’s first agriculture university (now G.B. Pant University of Agriculture & Technology) was established at Pantnagar in the year 1960. At present, there are 40 State Agricultural Universities (SAUs), 5 Deemed to be Universities (DUs) and 1 Central Agricultural University (CAU). They have been playing a vital role in providing education and research facilities for the development of agriculture in India and the libraries of these have been acting as nodal centers by providing valuable information, catering to their needs since the inception of agricultural universities and...
institutions. The agricultural libraries in India have to play a vital role by providing quick access to information.

The developments that occurred in the last few decades in information technology have created a growing awareness among those concerned with agricultural development. Today, the agricultural university libraries have been far behind in adopting new technologies due to fewer funds, lack of trained staff, etc. There is a need for library professionals in India to look at agricultural library resource development in a wider perspective so as to cope with the changing role of library services. There is also a need to adopt newer tools and techniques of information technology, communication technology, library networking etc., to make library and information services user friendly and relevant to the parent organization.

Since the libraries of agricultural universities play a vital role in agricultural production by serving as effective centers of information communication. The scope of the study attempts to analyze the available collection and services of the library and the extent of its use by post graduate students and research scholars. The study is limited to two agricultural university libraries i.e. Indian Agricultural Research Institute, New Delhi and G.B. Pant University of Agricultural and Technology, Pantnagar.

Utility of the study is to investigate the use of collection and services, purpose of usage of collection and services, satisfaction level in using the collection and services, and adequacy of collection among the students (P.G. students and research scholars) in both the libraries. This study aims at revealing the strength and weakness of collection and services of both the libraries.

This study attempts to achieve the following objectives:

i. To determine how frequently, and for what purpose the students of the above mentioned universities use different categories of information sources and services in the library.
ii. To identify the type of E-sources used by the students of these two university libraries.

iii. To assess the form (print or electronic) of library collection and services in use in both the university libraries.

iv. To ascertain the adequacy of print and electronic collection in fulfilling the information needs of the students in both the universities.

v. To find out the attitude of library staff in assisting the students for searching the needed information.

vi. To know the level of satisfaction in using the collection and services by students of both the universities and to suggest suitable solutions.

Before and after independence, a large number of agricultural universities, institutes, colleges and research centers under ICAR along with their libraries consisting of a good collection of books and effective services came into existence. They have moved towards building digital collections, electronic sources of information, and library automation and networking made possible by the emergence of new tools and techniques of information technology. So far, no comparative study has been dealt with comprehensively regarding the use of agricultural university libraries collection and services as a whole in the country or state. It was difficult to select all the agricultural university libraries to conduct an in-depth study and therefore two agricultural university libraries of national repute run by center/state government with ample funds and good collection of resources and services have been selected for research in this study. The agricultural university libraries selected for the study include:

i. Indian Agricultural Research Institute Library, New Delhi (Deemed University Library).

ii. Gobind Ballabh Pant University of Agricultural and Technology Library, Pantnagar (Uttarakhand).

On the basis of the scope and objectives of the study and after reviewing the literature the following hypotheses have been proposed:
i. There is significant difference between IARI and GBPUAT students (P.G. students and research scholars) who visit the library.

ii. There exists significant difference between IARI and GBPUAT students (P.G. students and research scholars) in terms of use of library collection and services.

iii. There exists significant difference in the level of adequacy of library collection of IARI and GBPUAT libraries.

iv. Library collection and services in electronic format in both IARI and GBPUAT libraries are used more by IARI and GBPUAT students (P.G. students and research scholars).

v. E-journals, CD-ROM databases and, online databases, slowly, but surely, are becoming an important part of library collection and services in both the libraries.

vi. There exists significant difference in the level of satisfaction of IARI and GBPUAT students (P.G. students and research scholars) regarding the use of the library collection and services.

The nature of the present study required the survey of IARI and GBPUAT libraries, which are situated in New Delhi and Uttrakhand. In this study, questionnaire, interview and observation techniques have been used for data collection. Questionnaires were distributed among 150 P.G. students and 100 research scholars at IARI, and 150 P.G. students and 100 research scholars at GBPUAT. 130 students (85 P.G. students and 45 research scholars) of IARI and 143 students (96 P.G. students and 47 research scholars) of GBPUAT returned the filled in questionnaires. Finally, 125 students (80 P.G. students and 45 research scholars) belong to IARI, and 137 students (90 P.G. students and 47 research scholars) belong to GBPUAT were selected because of the problems in the questionnaires.

Data for the present study has also been collected from some valuable primary sources (i.e. library manual, annual reports, souvenir, journals, pamphlets, prospectus, etc.), and secondary sources (i.e. dictionaries, encyclopedias, handbooks, etc.). In addition to this, the
websites of agricultural universities were also scanned for much needed information.

To give form and meaning to the statistical data through interpretations and conclusions, the collected data from the P.G. students and research scholars of IARI and GBPUAT were organized, tabulated, analyzed and interpreted and compared in the light of objectives set forth in this study. All the variables were defined, and values were assigned. Moreover, this study may also be used as a basis for an elaborate comparative study between the IARI and GBPUAT students (P.G. students and research scholars). The tools used in this study include frequency distribution, percentages, mean scores and ranking techniques for data analysis. Tables and graphs after analyzing the collected data have been prepared for all the variables using MS-Word and MS-Excel Package. Likert's scale and chi-square test has also been applied to show the difference between the use of library collection and services of IARI and GBPUAT and to test the hypotheses. On the basis of these tables and graphs, findings and conclusion of this research study was reached.

The conclusion of the study is that the difference between the visit to the library of IARI and GBPUAT students is significant. The study also reveals that there exist a significant difference in the usage of library collection and services, purpose of using the library collection and services, satisfaction level of using the library collection and services and adequateness of collection of IARI and GBPUAT. It is observed that CD-ROM databases, E-journals and online databases are the highly used E-sources among most of the students of IARI and GBPUAT. E-form of bibliographical service, document delivery service, indexing and abstracting service, CD-ROM database search services (CAB abstract, AGRICOLA, agriculture & natural resources, biotechnology and BIOSIS) are used by the students of IARI and GBPUAT. Finally, the result shows that the collection and services in electronic format have become the highly used medium among the students of both the agricultural universities and an important part of both the agricultural university libraries in fulfilling the demands of the student community for required information. In order to
catch the impact of information revolution, agricultural university libraries have been influenced most and are playing an important role in transferring the scientific and technological information to the users by building print and electronic collection. There is also a need to develop the use culture at national and international level among all the agricultural libraries for effective utilization of collection and services.

This research study has been organized under the following chapters:

Chapter-1 Introduction

This chapter presents the background, need and significance of the study; along with research problems, objectives, scope, hypotheses, limitations, literature survey and research methodology adopted for the study.

Chapter-2 Review of Related Literature

Related literature of the previous studies conducted in India and abroad on the various aspects of this study, such as information sources, information need, information seeking behaviour, library collections and resources, information usage, information services, library and information services and reader's services, have been reviewed in this chapter.

Chapter-3 Agricultural University Libraries in India

This chapter traces the historical development and significant achievements of agriculture during the Ancient, Medieval, Modern, British, Post-independence and green revolution periods. It also shows the establishment of agricultural universities in India; the factors and pathos contributing towards healthy growth and development, chronological growth of agricultural university libraries (state, central and deemed) in India and the present status of agricultural university libraries (collection and services). It outlines the definition of an agricultural university library along with its objectives, functions, collection, services, policy and elements required for the growth of collection. It also discusses the future of Indian agricultural libraries.
Chapter-4 Collection and Services of IARI Library and GBPUAT Library

This chapter provides information regarding the background of IARI and GBPUAT. It also discusses the collection, services, achievements and future programs of IARI and GBPUAT library.

Chapter-5 Comparative Study of Usage of Library Collection and Services

This chapter deals with in-depth analysis and interpretation of data collected regarding the usage of collection and services of both the agricultural university libraries.

Chapter-6 Summary and Conclusion

The sixth chapter is devoted to the findings, recommendations and areas of future research.

Bibliographical References

For providing the bibliographical references, APA (American Psychological Association) Citation Style, 5th edition has been used in the study.

In the end a bibliography is included followed by appendices which contain the questionnaire.