

**Availability of Core Journals used by the Postgraduate Agricultural Students of Ahmadu Bello University (A.B.U.) in the holdings of Agricultural Library, Zaria**

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**Abstract**

This paper examines the literature used by Postgraduate Agricultural students of Ahmadu Bello University, to identify the core journals they used. It also checked to see if the materials identified from this exercise are available in the Agricultural Library. The hundred theses were randomly picked and the citations in the theses were analyzed to arrive at the findings. Thirty two periodical titles were identified as core and these have a total of 2582 (50.645) of periodicals cited. All the core titles were found in the holding of the Library. There were 24 Nigerian Agricultural titles representing 3.29 percent of the 728 total numbers of titles. All the 24 Nigerian agricultural titles have a cumulative total of 201 citations among them. This represents 3.94 percent of the total periodical citation which is 5098. This study shows that the Agricultural Library is quite adequate in supporting the information needs of Post-graduate students in as much as the most frequently cited (or core) journals are concerned. All thirty-two most frequently cited or core journals are held by the Library.

**Introduction**

Libraries all over the world have become handicapped by various limitations including fund, accommodation, subject coverage and national interest that the possibility of getting everything one wants is becoming remote. On the other hand the needs of the users particularly in highly technical areas are fast becoming impossible to comprehend and cope with. There is therefore the need to identify what particular people use in their research and to evaluate what is available to them in their immediate environment and perhaps beyond

The Ahmadu Bello University, Zaria established 1962 is considered as centrally placed in Nigeria being the oldest University in the north of Nigeria. It has one of the strongest resources for agricultural studies in Nigeria. There is a Faculty of Agriculture that runs degree programmes at undergraduate and postgraduate levels. The University also houses and oversees the Institute for Agricultural Research (I.A.R.), The National Agricultural Extension Research and Liaison Services (NAERLS) and the National Animal Production Research Institute (NAPRI). There is also Division of Agricultural Colleges (DAC) where diploma courses at Ordinary and Higher National levels are offered and the faculty of Veterinary Medicine where degree courses are offered at undergraduate and postgraduate levels in Veterinary Medicine. The University is therefore considered to be well placed for proper and full study of agriculture.

On the part of the library, there is a network of library service within the University. These apart from the Agricultural Library include the Kashim Ibrahim Library (KIL), the Division of Agricultural Colleges (DAC) Library, the Veterinary Medicine Library, the National Animal Production Research

Institute (NAPRI) Library, and the National Agricultural Extension Research and Liaison Services (NAERLS) Library. They provide a network of libraries available for post-graduate agriculture students.

The Agricultural Library, Ahmadu Bello University, grew as an information resource centre to the Institute of Agricultural Research (IAR) which itself began in 1924 as a research station. It has grown to a full agricultural institute and is central to the study of some key crops in the Savannah area of Nigeria.

**Significance of The Study**

This study is significant in much respect.

1. It will help the Agricultural Library and similar Libraries to identify core literature cited by post graduate Agricultural students and so save funds to acquire only relevant materials.
2. It is the method of assessing how a library responds to the need of user ie whether materials cited are acquired.
3. It will help library in estimating needs through cooperating with other Libraries if each Library acquires its core Journals then cooperation will be more effective.

The decisions on inter Library cooperation and Loans becomes easy when the Library knows the extent to which its clientele depend on the collection of the Library.

**Review of Related Literature**

The use of citation analysis has gained considerable acceptance in libraries. The analysis of cited materials has continued to help give a picture of actual and relative use of materials. It has always helped in giving a picture of the types of format used, age, language author productivity, land availability

of such materials when checked against the holding of some libraries.

Chambers and Healey (1973) found 1259 titles were available for English while 225 were not available. For education, 629 were available while 85 were not available when English and Education theses citations were checked against the holdings of the Ohio University of Rhode of Island Library.

Kates (1974) examined references in 23 papers against the holdings of the library of the Instrument Laboratory Incorporation.

Lawani (1974) examined the Master List of periodical titles in tropical and subtropical agriculture against the list of holdings of Nigerian libraries in agriculture

Aina (1985) checked the periodical titles cited in the literature of Nigeria scientific research in Nigerian libraries. Edwards (1999) used citations from polymer science theses and dissertations as a collection development tool. Gooden analyzed the dissertations submitted between 1996 – 2000. Thirty dissertations generate 3,704 citations. He found journal articles as the most frequently cited (85.8%). Monographs produced 8.4%. Dissertations, theses, proceedings, annual reports all constituting others produced 2.2%. Of the others, dissertations represented over 60%. He chose to analyze dissertations because “they serve as the best representation of the research interests of doctoral chemistry students at the Ohio State University.

Swygart-Hobaugh (2004) examined the quantitative/qualitative method’s debate’s reflection in sociology research. Citation analysis revealed that quantitative articles were more likely to cite journal articles than monographs while qualitative articles were more likely to cite monographs than journals. Knivel and Kellsey (2005) analyzed 9131 citations from the 2002 volumes of journals in eight humanities fields: arts, classics, history, linguistics, literature, music philosophy and religion. The study found that citation patterns varied widely among humanities discipline. Monographs were found as the dominant of cited sources.

Bar-Han (2006) discusses the implications of multiple manifestations for citation analysis in his ego-centric citation analysis of the works of Michael O. Robin Basen on multiple citation indexes. Hua (2005) examined 1454 papers with 33,517 references from eleven journals in tropical medicine in 2004. The analysis of the articles, editorials, reviews, corrections letters, biographies and news publications in the journals showed 87.89% of the citation were from periodicals.

### **Methodology**

Citations appearing in the post-graduate agricultural theses submitted to the Ahmadu Bello University were analyzed. A list of the periodicals cited was made and ranked according to the number of times that the particular periodical title was cited. The list so derived of the titles was checked against the periodical holdings of the Agricultural Library.

### **Findings and Discussion**

Titles held represent 35.85% of all titles cited while 484 titles not held represent 64.15% of all the titles cited. All the thirty-two titles representing the most frequently cited (or core) of the titles cited are held by the Agricultural Library. The thirty-two titles representing the core of titles cited have a total of 2,582 citations or 29.34% of total citations or 50.64% of periodical citations.

Of all titles which were cited twenty times or more (which were 57 titles) representing 3,237 citations (or 36.7% of total citations) 43 were held while 14 titles were not held. Of the 96 titles which were each cited ten times or more, 67 (69.79%) of these were held by the Agricultural Library, 29 titles (30.20%) of these 96 titles were not held by the library.

There are 633 titles not cited up to ten times each. These titles represent 86.95% of all the 818 titles cited. When checked against the holdings of the library only 192 (30.33%) of the 633 journals titles were found to be held while 441 (69.66%) of these 633 titles were not held.

The checking against the holdings of the library reveals that most of the titles that were frequently used and cited are in the holdings of the Agricultural Library. The bulk of the titles cited representing titles that were cited twenty times or more were held by the library. Most of the titles not held are found among lowly cited titles. 441 of the 484 titles not held were from the 633 titles that were each cited less than ten times.

The following are the top 57 titles arranged according to the number of times each title was cited in descending order. The title not held has the abbreviation N.H.

- |   |       |        |
|---|-------|--------|
| 1. Agronomy Journal   | (242) | (held) |
| 2. Journal of Animal Science                                    | (234) | (held) |
| 3. Poultry Science  | (162) | (held) |
| 4. Journal of Agricultural science (Cambridge)                  | (159) | (held) |
| 5. Crop Science   | (132) | (held) |
| 6. Field Crops Abstracts  | (109) | (held) |
| 7. Australian Journal of Agricultural research                  | (99)  | (held) |
| 8. Physiopathology  | (92)  | (held) |
| 9. Australian Journal of Experimental Agric. & Animal Husbandry | (88)  | (held) |

10. Experimental agriculture (85) (held)  
 11. Soil science Society of American Proceedings (83) (held)  
 12. Soil Science (76) (held)  
 13. British Nutrition (66) (held)  
 14. Journal of Agricultural science (66) (held)  
 15. Indian Journal of Agricultural Science (65) (held)  
 16. Journal of Dairy science (64) (held)  
 17. Plant diseases Reporter (62) (held)  
 18. Indian Journal of Agronomy (58) (held)  
 19. Weed abstract (57) (held)  
 20. Weeds Science (55) (held)  
 21. Review of Plant Pathology (54) (held)  
 22. Journal of Nutrition (53) (held)  
 23. Agronomy Monographs (48) (held)  
 24. Pest Articles and New summary(48) (held)  
 25. Journal of the British grassland Society (47) (held)  
 26. Queensland Agricultural Journal(46) (held)  
 27. Nigerian Agricultural Journal (43) (held)  
 28. British Poultry Science (39) (held)  
 29. Empire Journal of Experimental Agriculture (39) (held)  
 30. Journal of Agricultural Research(39) (held)  
 31. East African Agriculture and Forestry Journal (38) (held)  
 32. Nature (37) (held)  
 33. Tropical Grassland (36) (held)  
 34. Annals of Applied Biology (33) (held)  
 35. Canadian Journal of Plant Science (33) (held)  
 36. Indian Phytopathology (32) (held)  
 37. Journal of science: Food and Agriculture (32) (held)  
 38. Australian Journal of biological Science (30) (held)  
 39. Review of Applied Mycology (30) (held)  
 40. Plant Pathology (29) (held)  
 41. Tropical Agriculture (Trinidad)(28) (held)  
 42. Advances in Agronomy (27) (held)  
 43. Biochemical Journal (27) (held)  
 44. Plant Breeding abstracts (27)( not held)  
 45. Annals of Botany (27)(not held)  
 46. India Journal of genetics and Plant Breeding (26)(not held)  
 47. Nigerian Journal of Animal of Production (25)(not held)  
 48. Journal of Entomology (24)(not held)  
 49. Netherlands Journal of Agricultural Science (22)(not held)  
 50. Nigerian Journal of Science (22)(not held)  
 51. Dissertation Abstract International Bulletin (21)(not held)  
 52. Geological survey of Nigeria Bulletin (21)(not held)  
 53. Journal of Agric and food Chemistry (20) (not held)  
 54. Journal of the American Society of Agronomy (20)(not held)

55. Proceedings of the Nutrition Society (20) (not held)  
 56. Rural sociology (20) (not held)  
 57. World Review of Animal Production (20) (not held)

Table I

(a)	(b)	(c)	(d)
No. of Titles cited	Freq of citations Made	No. of Theses held by Agric. Lib.	No. of theses title Not Held by Agric. Lib.
32	Most cited	32	-
57	20 or more times	43	14
96	10 “ “	67	29
633	10 or les	192	441
Totals 818		334	484

There were 24 Nigerian agricultural titles representing 3.29 percent of the 818 total number of titles. Of the Nigerian agricultural titles, the Nigerian Agricultural journal was the most cited with 43 citations. The Nigerian Journal of Animal Production was the second most cited. All the 24 Nigerian agricultural titles have a cumulative total of 201 citations among them. This represents 3.94 percent of total periodical citations which is 5098

Table II

Total no. of titles	Total no. of citation
818	5098

**Conclusion**

This study shows that the Agricultural Library is quite adequate in supporting the information needs of post-graduate students in as much as the most frequently cited (or core) journals are concerned. All thirty-two most frequently cited (or core) journals are held by the library.

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