An Intercropping Bibliography

by

Walter T. Federer

Abstract

This is an extensive bibliography of more than 3,000 references, covering the many and varied aspects of mixed cropping, intercropping, polyculture, or agricultural cropping systems. References on competition, weeds, pastures, orchards, shrubs, trees, or other types when other crops or cultivars are involved, are included. The subjects of rotations, doubling cropping, and no-till or minimum-till cropping are included in the list below. Library software is not yet at the stage where this bibliography could have been obtained. Researchers in the field of intercropping should find this bibliography a valuable aid in their studies on intercropping. Agronomists, ecologists, entomologists, and pathologists working in the areas of mixed plantings will find this bibliography useful.

An Intercropping Bibliography

Introduction

As may be noted from the following bibliography, there has been considerable research activity in the many and diverse aspects of intercropping. It would appear that many of these studies could have utilized some of the statistical design and analytical procedures in the following two books by the author,

Statistical Design and Analysis for Intercropping Experiments. Volume I. Two Crops

Statistical Design and Analysis for Intercropping Experiments. Volume II. Three or More Crops

in order to obtain and to extract additional information from the experimental data. Extracting all the information from an experiment allows for a more efficient use of research resources. Some of the manners in which the procedures might have been used are discussed in Chapter 19 of Volume II.

The bibliography was obtained as follows:

(i). A computer search of the literature was made in 1983 using BRS After Dark.
(ii). A computer search of the literature was made in 1997 using the Cornell University Mann Gateway Library Resource Agricola.
(iii). A number of Ph. D. theses were obtained and the literature citations in these theses were included.
(iv). Many intercropping reprints, technical reports, and papers obtained by the author were used to supplement those obtained from the above sources.
(v). All issues of the Agronomy Journal, Crop Science, and Experimental Agriculture from 1983 to July of 1997 were checked as were the list of references at the end of each of the papers on intercropping.

Despite this extensive search, there are always some citations that will be missed in any bibliography but it is felt that this bibliography is rather complete. In compiling the bibliography, several citation mistakes were noted. Also, it is possible that mistakes were made by this author. In compiling bibliographies, it has been noted that authors of scientific articles appear to make frequent mistakes in their literature citations. An attempt was made to cross check references wherever possible without always going to the original paper. Whenever the citation was incomplete, it was omitted from the list.

The software computer package MicroSoft Word – 97 was used to sort the references in alphabetical order. The sorting is not what every person might wish but is one form of alphabetical ordering. Also, a scanner was used for some lists and several errors were noted, especially if the printing was less than the best.

Some acronyms for organizations used in the bibliography are:

AAAS - American Association for the Advancement of Science
ACE - Agriculture in Concert with the Environment
ACIAR - Australian Centre for International Agricultural Research
ASA - American Society of Agronomy
CATIE - Centro Agronomico Tropical de Investigacion y Ensenanza
CIAT - Centro Internacional Agricola Tropical, Cali, Columbia
Bibliography


Bautista, B. R. (1918). The production of grain and stalks by maize as affected by intercropping with legumes. Philippine Agric. 7:36-43.


Chopra, C. L. and N. S. Subba Rao (1967). Mutual relationship among bacteroids, leghaemoglobin and nitrogen content of Egyptian clover (*Trifolium alexandrinum*) and gram (*Cicer arietinum*). Archives Microbiology 58:71-76.


Chowdhury, P. C. and R. Bose (1983). Intercropping soybean with pre-kharif maize in the rainy season and feasibility of a rabi crop in winter on rainfed subtemperate region in the hills of West Bengal (Grain yields, soil moisture, soybeans, India). Indian Agric. 27:229-239.


Flora, C. B. (1988). Farming systems approaches to international technical cooperation in agriculture and rural life. Humanities Agric. 5:24-34.


Klebesadel, L. J. and D. Smith (1960). Effects of harvesting an oat companion crop at four stages of maturity on the yield of oats, on light near the soil surface, on soil moisture, and on the establishment of alfalfa. Agronomy J. 52:627-630.


Lewis, W. M. (1972). No tillage production systems for double-cropping, for cotton and other crops. Proc. No Tillage System Symp., Columbus, Ohio, pp. 146-152.


Sheldrick, R. D., R. H. Lavender, amd V. J. Tewson (1986). The effects of frequency of defoliation, date of first cut, and heading date of a perennial regrass companion on yield, quality, and persistence of diploid and tetraploid red clover. Grass Forage Sci. 41:137-149.


Stelly, M. (1976). Multiple Cropping. ASA Spec Publ. no. 27, ASA, CSSA, and SSSA, Madison, WI.


112


Wilson, G. F. and M. O. Adeniran (1976). Some observations on land productivity under maize and cowpeas in pure stands and in mixed cropping with cassava. ITTA, Ibadan, Nigeria.


