ABSTRACT JOURNALS ON IRRIGATION, DRAINAGE AND WATER RESOURCES ENGINEERING
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A selected bibliography

Compiled by
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INTERNATIONAL INSTITUTE FOR LAND RECLAMATION AND IMPROVEMENT/ILRI
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FOREWORD

In 1976 the International Commission on Irrigation and Drainage (ICID) appointed a Committee to advise on the ICID policy of issuing Annual Bibliographies.

To serve as a working document in the Committee's considerations, Mr. L.F. Abell, Librarian of the International Institute for Land Reclamation and Improvement (ILRI), The Netherlands, prepared a selected list of abstract journals on irrigation and drainage of agricultural land and on water resources engineering.

As it was felt that Mr. Abell's list would be a useful tool to those seeking relevant abstract journals, ILRI decided to publish it in its own series of bibliographies.

M.G. Bos
Irrigation Engineer, ILRI, and Member of the ICID Bibliography Committee
CONTENTS

Introduction 7

Selected abstract journals on the irrigation and drainage of agricultural land 9

Selected abstract journals on water resources engineering 17

Annex

Other abstracting journals and services on the irrigation and drainage of agricultural land and water resources engineering 31

A. Irrigation and drainage of agricultural land 31

B. Water resources engineering 36
INTRODUCTION

Research workers today are all familiar with the feeling that they are in danger of being swamped by the immense volume of literature streaming from the printing press. To curb this great flood of literature and to divert it into properly regulated channels, extensive remedial measures are being taken. In library circles, these measures have earned the title of "The Great Flood Rescue Operation". The operation comprises a variety of bibliographical activities: reference journals, literature reviews, bibliographical lists. Nowadays almost every field of science has its own substantial bibliographical auxiliary apparatus.

Of all bibliographical aids, the reference journal is by far the best. Every month or every two months, a reference journal appears listing the most recent articles, books, and reports in a particular branch of knowledge. At the end of each year, an alphabetical subject index and an author index are published, serving as a guide to what has been written on a certain subject or by a certain author in the year in question.

Two types of reference journals can be distinguished. One contains titles plus abstracts of articles, books, and reports, while the other merely lists titles without abstracts. Although, strictly speaking, only the first is an actual abstract journal, the second being simply an indexing journal, both are referred to as abstract journals. This is an established custom which, for the sake of simplicity, will be followed in the present paper.

The value of an abstract journal is determined by the extent to which it covers its field, by the quality of the individual abstracts and, above all, by the usability of the subject index. If the subject index is badly compiled or virtually non-existent, the data assembled in the journal are, to all intents and purposes, inaccessible. It is not a practical proposition to search through every single issue of an abstract journal for publications on a certain subject, especially if the series goes back over a number of years.
The coverage of abstract journals in most branches of science is good. In a few it is less satisfactory. What can be said of the situation in water resources engineering and in irrigation and drainage?

To answer this question I made a survey of current abstract journals and services, making liberal use of the data contained in A Survey of the World Agricultural Documentation Services by P.J. BOYLE and H. BUNTRICK, FAO Documentation Centre, Rome, 1973, and in the excellent work of H. WELLISCH, A Survey of Indexing and Abstracting Services for Water Resources Engineering, Tech.Rep.No.11, University of Maryland, c.1973. I found that during the last twenty years, the number of abstracting services devoted wholly or partially to water resources engineering and to irrigation and drainage has increased vastly. One is faced with a wide variety of abstracting services that cover the subjects exhaustively but which overlap one another considerably.

From this confusing multitude I have made a selection which is presented in the following pages. Only those journals that I considered to be of particular value are listed. They are found under the separate headings:

Selected Abstract Journals on Irrigation and Drainage,
Selected Abstract Journals on Water Resources Management.

Other journals and services that were considered but were not included in the selection can be found in the Annex. My selection was confined to publications in the major languages of English, French, and German.

For irrigation and drainage, it is interesting to note that from January 1975 onwards, practically every publication of importance issued anywhere in the world can be found in one individual abstract journal: Irrigation and Drainage Abstracta, which is issued by the Commonwealth Agricultural Bureaux in the United Kingdom. For earlier publications, one must resort to a combination of the other abstract journals mentioned in the selected list.
SELECTED ABSTRACT JOURNALS
ON THE IRRIGATION AND DRAINAGE OF AGRICULTURAL LANDS

BIBLIOGRAPHY OF AGRICULTURE

Journal: 12x; $170,000 per volume; annual cumulation index $145,00; 1942-
Magnetic (CAIN) tapes; 12x; $45,00 per issue

National Agricultural Library, Beltsville, Md. 20705, USA

Journal published by Oryx Press, 3930 East Camelback Road, Phoenix, Arizona 85018, USA.
Magnetic tapes issued by National Agricultural Library, Beltsville, Md. 20705, USA.

Agriculture in general.
120,000 references produced. 103,500 title citations published.
Enriched titles. Titles of printed output in EN, titles on magnetic tapes in original language and EN.
Output arranged by subject (own classification) and titles of primary journals.
Subject index (modified KWIC, 6 keywords) and author index, each issue and annually. Controlled vocabulary.
Input source: 6,500 primary journals.

This journal contains publications on all aspects of irrigation and drainage of agricultural land, subdivided under the following headings: Plant Science, Soils and Fertilizers, Agricultural Engineering, Water Resources and Management, etc. The annual subject index is detailed.
One disadvantage is that the "Bibliography" gives only titles but no abstracts. A further criticism, which should not be overstressed however, is that strictly scientific publications are listed side by side with popular articles. For instance, a theoretical treatise by Don Kirkham concerning the flow of water in the soil can be found side by side with a practical description by a farmer from the American South West of a method for lining irrigation ditches. Needless to say, the "Bibliography" has a strong American bias, although this does not imply that other countries are inadequately represented.

1 Except for the comments, the data in this section were taken from P.J. Boyle and H. Buntrock, Survey of the World Agricultural Documentation Services, FAO, Rome, 1978. The prices were brought up to date.
FIELD CROP ABSTRACTS

Journal; 4 x; £30,— in CAB-associated countries; £68,— elsewhere; 1948-

Commonwealth Bureau of Pastures and Field Crops, Hurley, Berks.
SL6 5LR, UK.

Unit of Commonwealth Agricultural Bureaux, Farnham Royal, Slough
SL2 3BN, UK.

Published by Commonwealth Agricultural Bureaux, Farnham Royal, Slough
SL2 3BN, UK.

Agronomy and biology of temperate and tropical annual cereal, legume,
sugar, oil and fibre crops and of tobacco.

5,550 abstracts in EN. Titles in EN. Author addresses.

Arrangements by subject (own classification).

Subject index (alphabetical, 8 keywords), annually. Author index,
each issue and annually.

Input source: 1,200 primary journals, 6%—from secondary sources.

The four British abstract journals of the Commonwealth Agricultural
Bureaux (Field Crop Abstracts, Forestry Abstracts, Herbage Abstracts,
and Horticultural Abstracts) all deal with the growth of plants, in-
cluding the relationship of this subject to that of soil conditions
and water management. In view of this fact the irrigation and drainage
specialist can find much in them that will be useful to him. In the
way in which they are compiled these four CAB-journals greatly resemble
the other CAB-abstract journals mentioned in this survey (Soils and
Fertilizers, World Agricultural Economics and Rural Sociology Abstracts,
and Irrigation and Drainage Abstracts). The CAB abstracting journals
are all excellent. The abstracts are good, the subject indexes are
practical, and a thorough coverage is provided. The selection is such
that no unimportant popular articles obtrude. Taken all in all, the
CAB-journals are perfect examples of what abstracting journals should
be. Computer production methods were introduced in 1972 for all CAB-
journals, and a consolidated data base was created. The data in the
journals are now available in machine-readable form on magnetic tape.
From 1977 onwards, the CAB-journals will be available on-line through
Lockheed's DIALOG Retrieval Service.

The journals of the Commonwealth Agricultural Bureaux are subsidized by
contributing countries. These countries are:

the United Kingdom of Great Britain and Northern Ireland, Canada,
Australia, New Zealand, India, Pakistan, Ceylon, Ghana, Malaysia,
Nigeria, Cyprus, Sierra Leone, Tanzania, Jamaica, Trinidad and
Tobago, Uganda, Kenya, Malawi, Zambia, The Gambia, Guyana,
Barbados, Dependent Territories and the Republic of Ireland,
Botswana, Fiji, Mauritius.
FORESTRY ABSTRACTS

Journal; 4x; £35,- in CAB-associated countries; £78,- elsewhere; 1939-

Card service (title citations only); £18,- in CAB-associated countries; £31,- elsewhere (also available in subject sections and on airmail paper).

Commonwealth Forestry Bureau, Commonwealth Forestry Institute, South Parks Road, Oxford OXI 3RD, UK. Unit of Commonwealth Agricultural Bureaux, Farnham Royal, Slough SL2 3BN, UK.

Published by Commonwealth Agricultural Bureaux, Farnham Royal, Slough, SL2 3BN, UK.

Forestry, covering factors of the environmental biology, silviculture, work science, harvesting of wood, logging and transport, forest engineering, forest injuries and protection, mensuration, increment, development and structure of stands, surveying and mapping, management, business economics, administration, marketing of forest products, economics of forest transport and wood industries, forest products and utilization, social economics of forestry.

7,900 references produced, 6,850 abstracts in EN and 450 title citations published.

Titles in EN and partly in original language.

Output arranged by subject (ODC).

Subject index (alphabetical; 4 keywords) and geographical index, annually.

Author index, each issue and annually.

Subject index arranged by scientific names, woody species and by diseases and invertebrate pests.

Controlled vocabulary.

Input source: 1,100 primary journals, 5% from secondary sources.

(See Field Crop Abstracts).
HERBAGE ABSTRACTS

Journal; 4x; £20,- in CAB-associated countries; £45,- elsewhere; 1931-

Commonwealth Bureau of Pastures and Field Crops, Hurley, Maidenhead, Berks. SL6 5LR, UK. Unit of Commonwealth Agricultural Bureaux, Farnham Royal, Slough, SL2 3BN, UK.

Published by Commonwealth Agricultural Bureaux, Farnham Royal, Slough SL2 3BN, UK.
Agronomy, utilization, composition and nutritive value and biology of temperate and tropical herbage and fodder plants, grasslands, range-lands and browse plants.
3,200 abstracts in EN. Titles in EN. Author addresses.
Output arranged by subject (own classification).
Subject index (alphabetical, 7 keywords), annually. Author index, each issue and annually.
Input source: 1,200 primary journals, 8% from secondary sources.
(See "Field Crop Abstracts").

HORTICULTURAL ABSTRACTS

Journal 4x; £35,- in CAB-associated countries; £78,- elsewhere; 1931-

Commonwealth Bureau of Horticulture and Plantation Crops, East Malling Research Station, Nr. Maidstone, Kent, UK.
Unit of Commonwealth Agricultural Bureaux, Farnham Royal, Slough, SL2 3BN, UK.

Published by Commonwealth Agricultural Bureaux, Farnham Royal, Slough, SL2 3BN, UK.
Temperate and tropical fruits and nuts, vegetables, perennial fibre, oilseed and sugar crops, stimulant and medicinal crops, other industrial ornamentals.
10,100 abstracts in EN. Titles in original language and EN. Author addresses.
Output arranged by subject (own classification).
Subject index (alphabetical, 7 keywords) annually and 5-yearly. Author index, each issue, annually.
Input source: 1,200 primary journals, 5% from secondary sources.
Computerized 1973
(See "Field Crop Abstracts")
IRRICATION AND DRAINAGE ABSTRACTS

Journal; 4x; £20,-; 1975-


Published by Commonwealth Agricultural Bureaux, Farnham Royal, Slough, UK.

Irrigation, drainage, and related subjects.
Arrangement: By subject headings.
Author index, each issue. Annual subject and author indexes have not been published up till now.

The Commonwealth Agricultural Bureaux publish more than 20 abstract journals. The journals are produced by computer techniques, and a consolidated data base has been created. Regular periodic collections of abstracts from this data base are reproduced on specialized topics. "Irrigation and Drainage Abstracts" is one such specialized collection.

(See "Field Crop Abstracts")
LANDWIRTSCHAFTLICHES ZENTRALBLATT

Abt. I  Landtechnik; journal; 9x; 225 M; 1954-
Abt. II Pflanzliche Produktion; journal; 12x; 240 M; 1955-

Published by Akademie der Landwirtschaftswissenschaften der D.D.R.


This journal has four sections, two of which have an important bearing on irrigation and drainage, viz. the 'Abteilung Landtechnik' (Agricultural Engineering Section) and the 'Abteilung Pflanzliche Produktion' (Plant Production Section). The former section is issued every two months and the latter every month. Both sections have good subject indexes. The journal has a strong East European bias, although this does not imply that other countries are inadequately represented.

SOILS AND FERTILIZERS

Journal; 6x; £30,- in CAB-associated countries; £68,- elsewhere; 1938-

Commonwealth Bureau of Soils, Rothamsted Experimental Station, Harpenden, Herts, UK. Unit of Commonwealth Agricultural Bureaux, Farnham Royal, Slough, SL2 3BN, UK.

Published by Commonwealth Agricultural Bureaux, Farnham Royal, Slough, SL2 3BN, UK.

Soils; fertilizers; plant nutrition; tillage and soil cultivations. 5,300 abstracts in EN and 100 title citations. Titles in EN. Author adresses.

Output arranged by subject (own classification).

Subject index (alphabetical, 4 keywords) annually. Author index, each issue and annually. Controlled vocabulary.

Input source: 1,750 primary journals, 5% from secondary sources.

'Soils and Fertilizers' covers the theoretical and practical aspects of soil science and also deals with plant growth insofar as the latter is dependent on the soil.

(See "Field Crop Abstracts")
WORLD AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY ABSTRACTS
(WAERSA)

Journal; 4x; £20,- in CAB-associated countries; £45,- elsewhere; 1959-

Commonwealth Bureau of Agricultural Economics, Dartington House, Little
Clarendon Street, Oxford OX1 2HH, UK. Unit of Commonwealth of
Agricultural Bureaux, Farnham Royal, Slough SL2 3BN, UK.

Published by Commonwealth Agricultural Bureaux, Farnham Royal, Slough
SL2 3BN, UK.

Agricultural economics, including policy, supply, demand and prices;
marketing and distribution; international trade; finance and credit;
economics of production; cooperation; education and training, rural
sociology.

5,500 abstracts in EN. Titles in original language and EN.
Author addresses.

Output arranged by subject (own classification).

Subject index (alphabetical; 4 keywords) and author indexes, each issue
and annually.

Geographical index, each issue.

Controlled vocabulary.

Input source: 1,076 primary journals, 15% from secondary sources.

Of the abstracting journals concentrating on the subjects of agricultural
economics and sociology, 'World Agricultural Economics and Rural Socio-
logy Abstracts' is by far the most important from an irrigation and
drainage point of view.

(See "Field Crop Abstracts")