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NEW ZEALAND AGRICULTURAL ENGINEERING INSTITUTE

LINCOLN COLLEGE

CANTERBURY

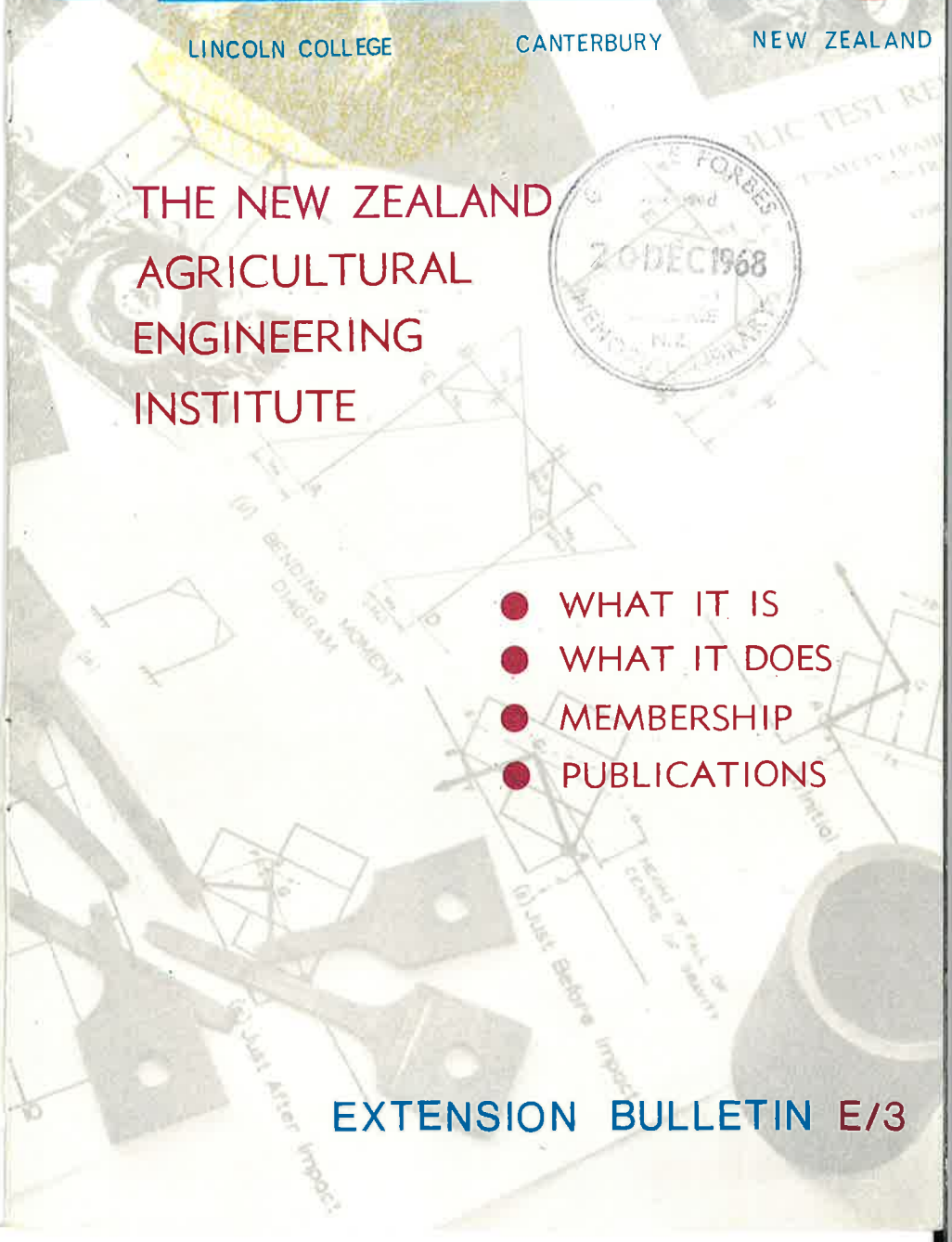
NEW ZEALAND

THE NEW ZEALAND AGRICULTURAL ENGINEERING INSTITUTE



- WHAT IT IS
- WHAT IT DOES
- MEMBERSHIP
- PUBLICATIONS

EXTENSION BULLETIN E/3



New Zealand Agricultural Engineering Institute

Extension Bulletin E/3

THE NEW ZEALAND
AGRICULTURAL ENGINEERING
INSTITUTE

August, 1968

Lincoln College,
University of Canterbury,
New Zealand.

WHAT THE INSTITUTE IS

The New Zealand Agricultural Engineering Institute was established in 1963 and is one of the associated institutes of Lincoln College. The Management Committee of the Institute is a committee under the Lincoln College Council. The Director of the Institute is appointed by the Lincoln College Council. Finance is made available by the Department of Agriculture.

The purpose behind the creation of the N.Z.A.E.I. was to set up an organisation to carry out testing, research and development in the field of agricultural engineering and to communicate the results of this work to the community.

The Institute has been authorised to test agricultural equipment under field and laboratory conditions and is recognised as an official testing station.

The Institute is also expected to carry out fundamental and applied research into agricultural engineering problems of importance to New Zealand. In some cases equipment may be developed to the stage where it can be taken over by a commercial organisation for manufacture and sale. The results of any work carried out by the Institute are published as soon as possible.

A membership scheme provides an opportunity for any interested person or organisation to keep in touch with the Institute and its work.

The scope of the testing research and development undertaken by the Institute is already very wide and staff have been selected to provide a background of knowledge and experience covering most aspects of agricultural engineering.

The permanent staff of the N.Z.A.E.I. are all employees of Lincoln College. The Institute is closely associated with the Department of Agricultural Engineering and the head of this department is also the Director of the Institute. Department staff take an active part in Institute research activities and N.Z.A.E.I. staff are associated with the professional teaching programme of the Department. At present the staff of the Institute under the Director consists of a Principal Research Officer, four research officers and eight technicians.

WHAT THE INSTITUTE DOES

Agricultural engineering broadly speaking, is the application of engineering principles to the solution of problems arising from agricultural operations.

The N.Z.A.E.I. is, therefore, concerned with any aspect of farming where engineering principles can be applied:

Farm machinery

Handling and processing of produce •

The housing of livestock

Farm structures and buildings

The provision of farm utilities

Irrigation

Drainage

Farm water supplies

Soil and water conservation

Watershed management

Agricultural aviation

The major functions of the Institute are:

The testing of agricultural machinery and equipment and the provision of a consulting service.

Research and development connected with any agricultural engineering problem of importance to New Zealand.

Information and extension activities which relate to agricultural engineering.

TESTING AND CONSULTING

The testing and consulting services of the Institute are available to New Zealand farmers, manufacturers of agricultural machinery and others.

The Institute normally undertakes testing on request and on a commercial basis.

Institute staff may initiate a testing programme and publish the results if this appears to be in the public interest.

TESTING

Testing implies that the equipment concerned can be subjected to definite laboratory or field tests against accepted performance figures or specifications. The test results are usually expressed as a relation between the performance figures or specifications provided and the figures obtained from the tests. In most cases these results are published as test reports.

CONSULTING

Consulting usually involves some assessment of likely results or performance in the light of both general engineering knowledge and special test programmes. Usually this results in a statement of professional opinion.

RESEARCH AND DEVELOPMENT

The location of the Institute within Lincoln College provides a unique opportunity for co-operative research.

The staff of the Institute are able to call upon a variety of specialists for advice whenever the need arises.

The close relationship between the Institute and the Department of Agricultural Engineering permits a joint use of facilities and makes research on a close co-operative basis possible.

Research is continuing into:

The performance, testing and design of tractor safety frames.

The durability of fencing materials and design of low cost fencing.

The spreading of fertiliser and insecticide.

The mechanisation of row-crop farming.

The design and construction of farm water supplies.

The results of research and development programmes are published as research papers and project reports.

INFORMATION AND EXTENSION

The third of the Institute's functions is to provide an extension and information service. This service aims to keep New Zealand farmers in touch with the testing and research projects of the Institute and also to provide a centre for the acquisition of information covering developments in agricultural engineering, both locally and overseas.

The Institute publishes a range of bulletins describing its own testing, research and development projects.

A specialised agricultural information centre furnishes a source of reference for both the Institute and for all others concerned with the literature of agricultural engineering.

MEMBERSHIP OF THE INSTITUTE

MEMBERSHIP SCHEME

The success of an agricultural engineering research and testing organisation depends on the extent to which its staff keep in touch with the practical problems of farmers and manufacturers and to the extent to which the results of its work go into every day use.

A membership scheme has been devised as a meeting point between the engineering staff of the Institute and those concerned with practical agricultural engineering in New Zealand. This provides an opportunity for interested individuals and organisations to contribute to the support of the N.Z.A.E.I. and make use of its services. Farmers and equipment manufacturers may come to know the staff and in this way hasten the spread of new knowledge and techniques from laboratory to farm and workshop.

There are two categories of Institute Membership:

Affiliates, who pay an annual subscription of \$4, may be any individuals who have an interest in agricultural, engineering.

Associates, who pay an annual subscription of \$50, are commercial firms and similar organisations who stand to benefit from the Institute's activities.

BENEFITS OF MEMBERSHIP

Members are entitled to attend annual meetings of the Institute and to participate in members' field days, demonstrations and seminars held from time to time.

Members receive a free copy of each of the N.Z.A.E.I. publications and their newsletter is published every two months. Members may use the information services available at the Institute and have the opportunity to seek the advice of Institute staff on agricultural engineering problems.

However, membership carries no voting privileges and members have no voice in the administration of the affairs of the Institute.

Enquiries about the membership scheme should be addressed to the Information Officer. There is a membership application at the end of this bulletin.

WHAT THE INSTITUTE PUBLISHES

Extension Bulletins written in a non-technical vein and presenting the practical results of the research programme to the farming community. They are issued free of charge and are available on request.

Test Reports which are the formal technical findings arising from test programmes. They are available at a cost of 10 cents each.

Research Reports primarily intended for agricultural engineers and research workers. They are available at prices which vary according to the size of the report.

Project Reports which are of a semi-technical nature and present the general results obtained from research, development or consulting projects. They are available at a cost of 30 cents each.

N.Z.A.E.I. Newsletter which is published for Institute members every two months. The newsletter keeps members in touch with N.Z.A.E.I. activities and with agricultural engineering news of topical interest.

Annual Report: This is issued in April of each year and covers the activities of the preceding twelve months. The report is free and available on request.

Miscellaneous Publications. Other publications are issued from time to time and these are available on request at no charge.

NEW ZEALAND AGRICULTURAL ENGINEERING
INSTITUTE

APPLICATION FOR MEMBERSHIP

NAME*

ADDRESS

**OCCUPATION or
BUSINESS**

I hereby apply for annual membership of the N.Z.A.E.I. as
Affiliate/Associate (delete one) under the general conditions
of membership as outlined on page 4 of this bulletin.

My cheque for \$4 / \$50 is enclosed.

DATE

SIGNATURE

*Applicants for Associate Membership please give name and
title of contact as well as company name. For example:

J. Smith, Managing Director, Smith Tractor Company.

POST TO:

The Information Officer,
N.Z.A.E.I.,
P.O. Box 40,
Lincoln College Post Office,
CANTERBURY.