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NATIONAL RESEARCH COUNCIL OF CANADA

DIVISION OF BUILDING RESEARCH

No.

314

TECHNICAL NOTE

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SUBJECT FARM BUILDING DEVELOPMENTS IN GREAT BRITAIN

In view of the current interest in the possibility of developing standards for farm buildings in Canada and of the review which has recently been made by Professor Moysey of research needs in relation to farm buildings in Canada, this record of current developments in Great Britain in connection with farm buildings has been prepared. It is based upon talks which the writer was privileged to have in England with Sir William Slater who has just retired from his position as Secretary to the Agricultural Research Council, with Mr. J.K.W. Slater of the National Institute of Agricultural Engineering, and upon documents which are listed in the text.

Agricultural Research Council

This body is a British Research Organization parallel to the Department of Scientific and Industrial Research. It supports a number of laboratories and organizations concerned with various aspects of agricultural research in the United Kingdom, including the National Institute of Agricultural Engineering at Wrest Park, Silsoe, Bedfordshire (The British Society for Research in Agricultural Engineering).

Farm Building Research

In 1956 the Agricultural Research Council set up a committee with the following terms of reference:

1. To review and co-ordinate research in progress on farm buildings.

2. To consider proposals for further work put forward by the Agricultural Improvement Council, or received from elsewhere.
3. To recommend new or additional research or enquiry on this subject as seems from time to time appropriate.

This committee is known as "The Farm Buildings Research Committee". A necessary preliminary to the work envisaged by the Committee was a survey of existing knowledge, which was widely scattered throughout scientific and technical journals. It was decided that this survey should cover material which appeared between 1945 and 1958 and should take the form of abstracts of relevant papers with a summarised review of their conclusions. The work was carried out by the Farm Buildings Unit of the Council.

This survey has now been completed and is being published in sections, of which the first two have now been published. These are:

A Bibliography of Farm Buildings Research 1945-1958

Part I, Buildings for Pigs - 2/6

Part II, Buildings for Potato Storage - 2/0

Copies of these publications are obtainable from the Agricultural Research Council, 15 Regent St., London, S.W.1, or The A.R.C. Farm Buildings Unit, The National Institute of Agricultural Engineering, Wrest Park, Silsoe, Bedfordshire. Each of these publications is much more than a bibliography. They start with a general review of the technical information contained in the publications listed and then give brief abstracts of the articles and papers that have been studied. One hundred and twenty-three publications are listed with reference to buildings for pigs and 90 publications are listed for buildings for potato storage. The literature search has obviously been so carefully done that the bibliography will long remain a standard reference in its field.

The Farm Buildings Association

Entirely separate from the work of the British Government in relation to farm buildings is the work of the Farm Buildings Association. The Farm Buildings Association was formed in 1956 when a number of people directly concerned with the development of efficient farm buildings decided that much would be gained if their interests were united in some form of Association.

In less than 3 years membership has risen to over 300, and includes farmers and their advisers, landowners and their agents, building and equipment suppliers; in short a fair cross-section of the various parties interested in farm buildings.

The principal objects of the Association are:

1. To provide opportunities for those interested in farm buildings to meet and exchange information, ideas, and experience relating to their design and construction.
2. To encourage the investigation of problems pertaining to farm buildings and their equipment.
3. To collect and publish information relating to farm buildings.
4. To stimulate the incorporation into practice of advances resulting from research, experimental work and practical experience.

A 3-day country conference is held each year in the early spring, at which special emphasis is laid on visits to farms to demonstrate noteworthy buildings relevant to the conference theme. A one-day conference is held in London in Smithfield week and regional meetings are organized from time to time.

Reports of Conferences are circulated to members, who also receive without extra charge a copy of the annual Journal, which features articles on current developments in farm buildings, plans, bibliography and other information for the guidance of those contemplating building work.

The Association enjoys regular communication with the leading authorities on farm building developments in countries overseas, articles from whom comprise a section of the Journal.

The First Conference of the Association was held in Perth and dealt with Building Materials and Methods. The Second Conference was held in Bath and dealt with Buildings for Milk Production. Regional meetings have also been held, with the Third Annual Conference held in Harrogate which dealt with Buildings for Beef Cattle and Pigs.

The papers presented at these conferences are being published in a Journal of the Association, three issues of which have appeared. These may be obtained from the Secretary

of the Association, Mr. Peter J. M. Aston, Westfield, Braunston, Oakham, Rutland.

Bath Conference Report	-	8/0	post free
1958 Journal	-	10/6	post free
1959 Journal (No. 3)	-		Price unknown

A copy of the latter Journal is now in the library of the Division of Building Research. It is a well produced, photo offset, quarto volume of 124 pages containing a number of interesting papers, a useful list of British publications on farm buildings, and other miscellaneous factual information. The DBR library is attempting to get copies of the earlier publications and these will be available for consultation by those interested. Copies of these British publications are available in the library of the Department of Agriculture in Ottawa.

Development Grants for Experimental Farm Buildings

In addition to the efforts already noted, the British Government have decided to assist with experimental farm buildings in line with the current activity in this field in the United Kingdom. The following is a statement on this matter made by the Minister for Science, Lord Hailsham, in the House of Lords on the 16th of February, 1960:

"Much research has been and is being done on the basic requirements which farm buildings should supply. It has, however, become increasingly apparent that there is a lack of facilities for development work to bridge the gap between research and practical application and a need for trials of experimental buildings. Development work and trials of this kind can best be carried out on farms, which can be chosen to provide the necessary range of conditions, rather than at a research centre or centres.

"To meet this situation, and at the same time to overcome the difficulty that buildings of an experimental or unproved nature would not qualify for assistance under the Farm Improvement Scheme, the Agricultural Research Council proposes to introduce a scheme of co-ordinated experiments under which grants, up to a maximum of 50 per cent of the approved cost, would be available for the erection in approved cases of experimental buildings or structures on farms or for incorporating experimental features in traditional buildings. The scheme will be administered under the supervision of the Farm Buildings Research Committee of the Council, of which Sir Walter Drummond is the Chairman, and the experimental work will be

under the control of the Council's Farm Buildings Unit.

"In return for a grant under this scheme, the farmer or landowner by whom the building is erected will be required to co-operate with the Farm Buildings Unit in the design of the building and to provide facilities for the inspection of the building and the observations during the course of the investigation.

"The scheme will be administered and the grants will be payable by the Agricultural Research Council. In no case will a grant be awarded for a building project for which a grant is being made under any other Government scheme. Experimental or unproved buildings are not in any case eligible for a grant under the Farm Improvement Scheme where grant may only be given if the building is such as a prudent landlord would erect and is such as would clearly provide long-term benefit to the land at a reasonable cost.

"It is not intended to give grant-aid in respect of all projects which comply with specified conditions but only in respect of proposals that can suitably form part of the experimental programme of the Farm Buildings Research Committee. Applications for grant will not in any case be considered in respect of building projects which have already been started. Further particulars of the scheme, and the way in which applications should be made for grants under the scheme, will be announced in due course.

"Farms in England, Wales and Scotland, will be eligible for grants under this scheme. The scheme will not cover Northern Ireland."

The Agricultural Research Council have stated that, with reference to such buildings, the applicant for assistance will employ his own professional advisors for the construction of the building but the design of the experiments, the collection of data and the preparation of reports on the investigations will be the responsibility of the Farm Buildings Unit. These reports will be published. The maximum rate of grant has been fixed at 50 per cent in contrast to 33 per cent available under the Farm Improvement Scheme as some compensation for the additional work involved in participating in the experiment and the extra risk arising from the unproven nature of the building.

The Division of Building Research, in association with the Engineering Research Service of the Department of Agriculture will keep in close touch with these British developments so that the experience they develop may be applied, when possible and desirable, for use in Canada.