

Introductory Remarks

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Introductory remarks

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On behalf of the organizers I should like to add our welcome to that of the President, and to say how gratified we are that this meeting has attracted such a large and distinguished gathering, representative of so many agricultural interests.

I think it is not generally known that the Royal Society has a long history of direct interest in agricultural matters, for in 1662, when the Society received its Royal Charter, it appointed a special committee – the Committee for Agriculture, or the Georgicall Committee – which met for the first time in that year on 20 March. This is 311 years ago almost to the day. It is particularly interesting and significant to us meeting here today that the Society and its Committee showed a proper concern for agricultural practice and its national importance, as well, of course, as a keen interest in scientific matters. Furthermore, special measures were initiated to implement the Committee's ideas and decisions through the members of the Society, and these measures embraced horticultural and forestry topics as well as those of agricultural pertinence.

Thus we find that in 1662 at its first meeting, the Committee considered the proposition to plant potatoes 'throughout all ye parts of England', and later encouraged its members and Fellows of the Society to grow potatoes by providing small tubers and appropriate notes on cultivation. This was followed in 1664 by a more ambitious resolution to send out through Fellows to all shires in the kingdom where they had special interests, inquiries concerning the husbandry practised and thereby to exchange information that could be used to improve husbandry standards. So in these early years the Committee cast its net wide, showing an interest in planting material for kitchen gardens, orchards and farms. It discussed corn, flax, hemp, hops, madder, woad, buckwheat and rapeseed as well as considering varieties of cherries, wintergreens, fungi and even mistletoe. Of special interest today was a concern with work on the grains of corn to increase their productivity, and the unthriftiness of wheat where barbery abounded and 'the wind blowing from it upon the corn was concerned to be the cause of blasting'. We have our disease problems in 1973.

The world of the late twentieth century is hardly comparable with that of the seventeenth century, but 300 years ago this Agricultural Committee was considering food shortages, starvation and productivity in agriculture. This meeting originates from the deliberations of a different committee, the Industrial Activities Committee established by Council in 1970, and is one of a series concerned with technological forecasting in various sections of industry and the contribution of science. This is a difficult task, all would agree, and for agriculture it is a particularly pertinent and significant time to be looking at the future. There is a clear necessity for an industry and its research and development to act in concert with agreed objectives for future requirements as far as these can be envisaged.

Agriculture is unique in its intimate and direct concern with man's basic welfare, standards of living, social structure and economic development when viewed on a world basis. We are concerned with more than science and technology, though these must define the possibilities

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and set the targets for the future. The relevance of national agricultural policies has surely to be considered not only as a domestic issue, but internationally and globally with regard to the most effective means of utilizing the world's natural resources. This must be done to meet the requirements and improve the quality of life for the ever increasing world population, and is the justification for those who think in terms of 'one world' and who deplore the continuing acceptance of the distinction between the developing and developed countries.

There is now a great impetus behind the large amount of scientific and technological research directed towards the betterment of agriculture; while quite independently, scientific research in many disciplines provides a reservoir of new knowledge and original ideas. Indeed it is characteristic of much of the current research in the service of industry to be of a multidisciplinary nature with also a breakdown of the distinctions between pure, applied and technological research or other more recent concepts. If we consider, as I think we should, that world agriculture will require in the years to come, all the expertise that can be employed to meet the requirements, then it is equally certain that the research effort must anticipate the needs if it is to fulfil its duties.

Within this context, the agricultural industries and their supporting research efforts have a great responsibility where these are based on the most advanced technology. No one can seriously doubt also that agriculture in developed countries must strive for continued and more efficient productivity within their own national economic and social structures. The most advanced agricultural industries have achieved a great deal in recent decades, and have benefited from several so-called technological revolutions, but we can hardly feel complacent about the present circumstances; still less can it be considered that there are no problems to be faced in the future. Agriculture is biologically and environmentally based, and its uniqueness in this respect is apparent and widely recognized in the hazards to which it is exposed in realizing its full potential. These are the matters and problems which we shall discuss during the two days of this meeting.

In this printed account of the meeting the principal speakers' contributions are recorded in full. In addition, where the Society invited speakers to open the discussion session after each paper, these remarks are also included. The informal discussions that followed are omitted.

During the lunch and tea intervals, an exhibition of new foods was presented by courtesy of the following:

The British Arkady Company Limited Spillers Limited Ranks Hovis McDougall Research Limited B.P. Proteins Limited I.C.I. Limited, Agricultural Division Courtaulds Limited Miles Laboratories, Marschall Division

Textured vegetable proteins Textured soya proteins Single cell proteins for human use from carbohydrate substrates Single cell proteins from alkanes Single cell proteins from methanol Spun vegetable proteins Spun vegetable proteins