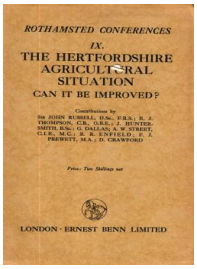
ROTHAMSTED RESEARCH

The Hertfordshire Agricultrual Situation

Full Table of Content



The Place of the Oaklands Institute in the County Agriculture

J. Hunter-smith

J. Hunter-smith (1930) *The Place of the Oaklands Institute in the County Agriculture ;* The Hertfordshire Agricultrual Situation, pp 18 - 24 **- DOI: https://doi.org/10.23637/ERADOC-1-202**

THE PLACE OF THE OAKLANDS INSTITUTE IN THE COUNTY AGRICULTURE

By J. HUNTER-SMITH, B.Sc.,
Principal, Oaklands Farm Institute

During the short-lived wave of enthusiasm in favour of home-production which swept the country at the end of the war there took place a very considerable expansion of agricultural education and research. One of the developments was the establishment of a number of farm institutes, including the Herts Institute of Agriculture, situated at Oaklands, St Albans. Each of the new Institutes was in a rural area. They were provided with a hostel for residential students and with a farm. Around the latter centres more than usual interest, for, although prior to this period one or two agricultural Institutes were in existence, a farm was not regarded as an essential part of their equipment.

Institute Farms

It might be expected that the provision of a farm for all the post-war Institutes was the expression of some formulated policy with regard to the functions which the farm should fulfil in the work of the new educational institutions. No such definition of policy has been laid down by the authorities, and, in the absence of official pronouncements on this essentially important matter, it is desirable to discuss the subject in some detail. It has, indeed, been suggested that these farms were a break-away from the original intention, which was to provide some twenty acres for experimental or demonstration purposes. Such a procedure would have fitted in with the traditional use made of farms attached to agricultural colleges. The new Institutes would then have become miniature colleges, chiefly engaged in teaching the agricultural sciences, with a demonstration area of land as a non-essential appendage. Had developments taken place in this direction, there would inevitably have arisen a demand for science laboratories as a necessary part of the teaching equipment. Actually, the farm has taken the place of the laboratories (for which there is no demand), and one is led to conclude that a significant change of opinion took place in favour of a different type of education from that which would be provided at a junior agricultural college.

Without an official lead, the "farm" policy of the Institutes has actually shown considerable diversity; some have favoured field and other experimental work to a greater or less degree, while others have

https://doi.org/10.23637/ERADOC-1-202

placed the main emphasis on demonstrating farming methods which can be subjected to the acid test of cost accounts and an annual profit-and-loss account.

The Farm at Oaklands

There has been no dubiety at Oaklands as to which policy should be adopted (quite apart from the fact that the extraordinary variation in the soil would make field experiments either unreliable or extremely costly). This farm is definitely run as far as possible on commercial lines, and that because it is emphatically maintained that a farm so run is the very best laboratory for students whose aim is to make a living out of the land. Their success as farmers or farm-workers will depend primarily on their interest in, enthusiasm for, and knowledge of, farm work and farm management. What could be better for them than to spend a year on a farm where high-quality work is being done and demonstrated, where good management is practised and explained, and where the results are judged, not by opinion or sentiment, but by accurate financial records? This is our conception of the function of the farm at Oaklands. Far from limiting the educational value of the farm, as is done when experimental work is the aim, it brings into focus a complete farming problem, which is purposely made as comprehensive as possible: it secures contact with the farmer's real problems, stimulates interest, and gives practical direction and authority to all the teaching at the Institute. This argument holds good not only for students, but also for educational work in the county. The Principal of the Institute is also County Agricultural Organizer, and the whole of the Institute staff is available to assist in the general advisory and educational work among farmers and others.

From experience gained, we have no hesitation in asserting that a farm run on modern lines and showing a profit, as opposed to an experimental farm, is the soundest argument for agricultural education, the best basis for advisory work or teaching, and the finest asset in county work generally.

Recording

The work of the School of Agricultural Economics at Oxford shows that an enormous amount of information can be extracted from the *ordinary* farm simply by keeping records. Clearly this is one of the main functions of an Institute farm, and one which does not interfere in any way with its commercial basis. As already mentioned, cost accounts are kept and are considered indispensable. But complete control of the farm and the application of systematic methods make it possible to secure far more than the usual accuracy with internal costings. Apart from financial records, the commercial farm presents a wealth of opportunity for collecting useful information, which the farmer wants but does not receive. For some

https://doi.org/10.23637/ERADOC-1-202

years records have been kept relating to grass-lambs, baby-beef, and times of milking. How much more quickly the farmer could be aided if these and kindred records with regard to farm live stock were undertaken co-operatively! Now, however, the Institute can claim the honour of setting in progress, within the Cambridge province, a joint scheme to investigate the causes and extent of "Wastage in Dairy Cows," which is a serious financial drain on the dairy-farmer. Such an investigation should provide data of use to the farmer and the research worker, and is a typical example of the value and need for co-operative recording on commercial farms.

In the field, records have been kept of several crops—census work on barley and sugar-beet, and on wheat (just begun) in conjunction with the School of Agriculture, Cambridge; similarly, on silage, lucerne, grassland, etc. Except in the case of the grass-land records, manuring has not been a factor under observation.

The value of these records has been greatly enhanced by making use of the scientific training of members of the staff. A striking example of this is provided by the trial of the "New Rotation System of Grassland Management" at present proceeding at Oaklands. This, in keeping with the farming policy, is run as the farmer is advised to do it; but, in addition, accurate economic records are kept, and chemical and botanical data concerning the system are being accumulated. It will be seen that such work is also an education for the staff: being of a nature akin to research, it prevents mental stagnation, so apt to afflict those concerned only in teaching.

It is claimed that the policy outlined above, and adopted on the farm at Oaklands, has, in fact, provided excellently for the education of the students, the education of the farmers, and the maintenance of an informed and progressive outlook on the part of the staff. It is not claimed that more than a fraction of the recording work that might be done has been started or accomplished; when more co-operative, systematic work is attempted in these directions some of the problems of farm management will be better understood, and the research worker may receive useful indications as to where his services are required. It may therefore not be inappropriate to appeal for more recording, especially more co-operative recording, on subjects connected with all phases of farming, but bearing in mind the relatively large part that live stock play in British agriculture to-day.

The Present Problems

The analyses and study of the records obtained during the past seven years give one confidence in asserting that the chief problems of the farmer *at present* are connected with management, which includes buying and selling; the elimination of wasted time and effort through ineffective organization, unskilled labour, or badly arranged farms or farm buildings;

https://doi.org/10.23637/ERADOC-1-202

the lack of capital, and of much-needed labour-saving devices. Accordingly, few of the farmer's troubles are referable to the "pure scientist" for solution, for problems connected with manuring, varieties and diseases are second in importance. Advances may still be looked for from the chemist in the realm of manuring, from the geneticist in the sphere of animal- and plant-breeding, and especially from the pathologist in the field of disease control. But the full utilization of discoveries in these directions is conditional on advances which have still to be made in connection with management and with marketing.

It must not be assumed from the foregoing that a good grounding in natural science, and knowledge of the properties of manures, of varieties of crops, control of diseases, food rationing, etc., are regarded as of no importance. What is maintained is, that the man who has this grounding and this knowledge is still faced with the big problem of what may be called the "economics" of farming. The acquisition of the scientific knowledge may be compared to the college training of a general medical practitioner: after he has gained his scientific knowledge he has still to face the task of building up a private practice (or buying one and making it a success). The old idea of agricultural education was that it should be like that of the medical student—omitting any training for the business side. The newer and more rational conception is that in farming the business side is so complex and so vitally important that the training ought to be very largely concerned with it.

This means that the time of the student must be divided between the acquisition of skill (manual, mechanical and managerial), the discussion of farm management and marketing, and such a grounding in the agricultural sciences as will prove an aid to all-round effective and progressive management.

With regard to marketing, the present endeavour must be mainly directed to the formation of the right outlook, in preparation for the marketing reforms which are bound to come sooner rather than later When the gamble of present-day methods is replaced by orderly or organized marketing a bias definitely in favour of a progressive agricultural education will have been secured. There can be no finer example of the possibilities in this direction than the stimulus given to clean-milk production by the introduction of the principle of payment for milk according to quality.

The Education of the Resident Student

Entrants.—If Oaklands and other Institutes are to serve as the recognized gateway to a successful career in agriculture, then, obviously, the line of approach must be defined. There ought to be definite links with Elementary, Secondary and other schools, so that children who intend to seek a career on the land, whether as farmers, bailiffs or farm-workers, may receive a suitable preliminary education as well as a ground-work of

https://doi.org/10.23637/ERADOC-1-202

practical experience on which to base the final training they will receive at the farm Institutes.

To derive the greatest benefit from a course at Oaklands I consider the following four requirements to be essential for each student :

(1) A healthy mind and body, combined with an intense keenness for agriculture.

(2) A sound general education, based on rural pursuits, rural history, geography, arithmetic and literature. Education of this kind has the inestimable advantage that it is capable of securing the interest of the child, without which proper mental development is impossible. It is as well adapted, and possibly of more importance, for the child who intends to proceed to the town as for the child remaining in the country.

(3) A simple knowledge of practical or experimental science, such as can be taught in conjunction with a well-managed school garden.

(4) Manual skill acquired partly at school—*e.g.* in the handicraft work and the school garden—and partly during a year or more spent under competent instructors on a good farm.

Requirements (2) and (3), and in part (4) also, raise the whole question of elementary education in the villages—a question with which I am not competent to deal. I may, however, point out it is now becoming widely realized that this needs a thorough overhaul in order to link it with the "living school" which surrounds the brick building.

Requirement (4) raises further controversial points. Assuming that the entrants to Oaklands spend two or more years at a Central or Secondary school, how much of this time should be devoted to acquiring skill in actual manual operations which will be needed when they are engaged on farm work? Pioneers, such as Mr W. J. Malden, have shown that certain of these operations—*e.g.* hoeing, transplanting, mowing—are eminently suitable for incorporation into the school curriculum, as part of the physical training or as additional manual training. After all, if most boys nowadays are taught to use, *correctly*, a saw and a plane, why not teach them to use also, *in the most skilful way*, other tools—such as a fork, spade, hoe, and scythe?

Then follow those first years on the farm which are so important in making good farmers or skilled workmen. At this stage two personalities should meet : the keen lad and the competent instructor. Of keenness there should be no lack, for that is the natural inheritance of healthy youth —an inheritance which should be further stimulated by the new type of rural education. On the farm, however, the opportunities of receiving proper instruction vary enormously. One has no hesitation in saying that, unless lads are *taught* while they are young how to use tools, milk, plough, manage horses, and, in fact, how to do every job on the farm, in the best and easiest way, they will never acquire the highest degree of efficiency. The provision of this indispensable education has in the past been left to each farmer, with results which are sometimes good and sometimes bad. The time now seems ripe to augment the farmer's part in a systematic

https://doi.org/10.23637/ERADOC-1-202

manner, in addition to what is accomplished in this direction at school, so that the special skill of particular districts may be acquired in every district.

Our programme for agricultural education therefore consists of the elements at school ; the practical essentials under proper guidance on the farm ; and management, marketing and science at the County Agricultural Institute.

Discussions on Farm Management and Marketing

Probably of all the things with which one would like to equip a student the art of management should come first. Some would maintain that this cannot be taught. Perhaps not in its entirety, any more than a School of Art can with certainty train an A.R.A. The art teacher is, however, not so ambitious as that, but he has realized there is a science in every art, and the greater part of this science certainly can be taught. Is it not so also with the art of management? Has not the time come for the deduction of certain principles of sound management which can be discussed with the student, and observed in operation on the Institute and other farms?

Time and space does not permit further discussion of this interesting subject, other than to suggest that cost accounts, process-recording and costing, and co-operative recording should furnish some data ; that trained powers of observation and deduction leading to judicious action must play a part, and that shrewdness in judging men, and guidance in how to handle labour to get the best results with the least fatigue, represent knowledge which is worth obtaining.

In the case of marketing the matter is simpler. During the past four or five years at Oaklands a feature of the work has been the study of marketing problems, the reports of the Astor and Linlithgow committees and the excellent Economic Series of the Ministry of Agriculture serving as a basis. Undoubtedly with the more mature students this side of the training has been a very valuable one.

Grounding in "Science"

Hitherto this has occupied the greater part of the curriculum of the agricultural student. It includes an elementary applied study of soils and manures, of animal nutrition and rationing, the elementary botany of farm crops, the chief varieties of the common crops, some knowledge of surveying, and as much book-keeping as possible. Owing to the lack of any scientific basis to the education of at least 50 per cent. of the entrants to Oaklands, a disproportionate amount of time has had to be given to imparting the rudiments of the natural sciences. If every student arrived with a simple but accurate knowledge of chemistry, physics and biology, and if this knowledge were acquired in a way to stimulate interest in

https://doi.org/10.23637/ERADOC-1-202

natural phenomena, rapid progress could be made with the applied side of these subjects.

Further, there is, as already pointed out, a great dearth of material for anything approaching a "scientific" treatment of the arts and crafts of farming and of farm management.

After Oaklands

A year at Oaklands, with its practical work, study, discussions and social amenities, does undoubtedly serve to create in students a desire to learn, and a realization of the need for progress. Their instruction is not restricted to either practical work, management or science, for the aim is rather to excite interest in every phase of farming, to show that no method or process is fixed or perfect, but that for those who have the will to advance improvements in every direction may be possible. To secure such an outlook is our purpose, as with it everything is attainable and without it the wheels of progress stand still.

We should like to follow our students on to the farms where at least 90 per cent. of them are working in England or abroad, but space forbids. We should also like to discuss the cordial relationship that exists between Oaklands and the farmers in the county. In numberless ways services have been rendered to the men who are now farming; contact and confidence have been easily established through mutual experience with the same daily problems. Much can be done to help farmers by discussion and demonstration, but the root problem remains that of securing effective links between rural education, early farm-training, and the County Institute.

https://doi.org/10.23637/ERADOC-1-202 *pp 8*