

tinguished men and women in Great Britain. Perhaps one of the most useful departments of the Council is the Case Committee to which expectant mothers may go for aid. There are a few of such local organizations in Canada. The Children's Aid Societies have been called on from time to time, and are over taxed in their work. The Unmarried Parents Committee of the Vancouver Council of Social Agencies has been of great help to that community. Domestic Relation Courts and Probation Officers have been aiding in other communities. In short, efforts have been to recognise the child as one of the greatest assets in our civilization, and by conserving the interests

of mother and child, thus lay a foundation for a better citizenship in Canada. The Canadian Welfare Council has been doing excellent educative work and there is no reason why it should not strive for a uniformity of legislation in these matters throughout Canada. It could also, through local agencies, do much to help in coordinating the law and the divers methods, which are now being used throughout our Dominion, to make the lot of the unfortunate more bearable. It is the sincere prayer of all interested in our fellow beings that something be done and that right speedily, to build up a citizenship from which the criminal and defective classes shall have largely disappeared.

Aims Of Agricultural Education

By LYMAN T. CHAPMAN*

TO give its students an adequate understanding of the application of agricultural science, in a profitable way, to the fields and farm yards, to develop an active appreciation of comfortable homes and a better understanding of rural life is the aim of agricultural education. The achievement of this objective is attempted by the Nova Scotia Agricultural College from two angles: First, training boys and girls to become better farmers and citizens; second, by providing facilities for taking the first and second years of the B.S.A. degree course as a means of training farmers, educators, research workers, experimentalists, extension men, and men for administrative positions in technical agriculture.

In a word, the principal product of agricultural education is *men* trained in the sciences and arts of farming; trained men to man our farms, our experimental stations, our research laboratories, district representative offices, administrative positions, and the Agricultural College itself. And above all, the men in these different walks of agricultural life must have a clear understanding of the place farmers and farming occupy in this changing world of ours, where farmers are no longer self-sufficient, but must sell their products in the world's markets and buy numerous daily necessities from many sources.

The application of science in engineering, aviation, manufacturing of all kinds, has changed the tempo of life, and so agriculture, if it is to keep in step and maintain a satisfactory standard

of rural life, must work that money-making team—"Science" and "Practice"—at the modern rate of speed and efficiency.

Teachers and students at an agricultural college work with life and living things. Beginning with the lowest forms of plant and animal life, the course of instruction unfolds the evolution of plants and animals to the higher forms as represented by the hay and grain in the fields, the fruit in the orchards, the poultry and the cattle and horses in the farmyards, all of which provide the food we eat and the clothes we wear. And so not only do the students acquire the knowledge of a business and a way of life, but they study and work with the very basis of their existence.

As the roots of the plants go down into the earth, so does the work of the chemistry and biology laboratories in determining the proper treatment of soils for the production of the living things that are a part of our very existence and in acquiring knowledge of the plants themselves, all of which is helpful in fighting and preventing the ravages of the undesirable and injurious forms of plant and animal life—the diseases and insects that attack crops and fruits and live stock and man.

A constant battle is being waged by nature and by man to maintain the balance. We in Nova Scotia face these enemies in more or less controllable kinds and numbers. The aim of an agricultural education is to equip men to carry on these battles. To equip them to apply the findings of science to the arts of farming and rural life. We live in a world of facts accumulating at an increasingly rapid rate. The contribution of the agricultural scientist is a great increase in the things we know. Hand

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in hand with that knowledge comes an acute realization of the importance of testing their accuracy. The economic relationship between the scientific facts and conditions in the field and farmyards is constantly changing. The great difficulty is to concentrate upon the *basic and important principles* and *leave the things of lesser importance* to be revealed more accurately by the experience of life in later years. And so students and staff together explore the accumulation of knowledge to reach a realization of values in terms of farm crops and live stock, and to reach an understanding of their application to farming—that oldest and most honourable of human occupations—and to gain an adequate appreciation of their heritage, of soil and climate that makes for comfort and security.

The Economic Aspects

Hand in hand with the broad aim of an agricultural education, go the more tangible and business aspects of the industry as it affects the individual farmer and his family right in his own home, in his own fields, and in his own barnyard. One of these more practical aims should be to increase the production of our farms, not alone because we shall have a few more millions of dollars worth of produce at the end of a given year, but more particularly that the individual farmer shall have a larger revenue with which to procure the things in life which he would like to have for his family and himself.

Aside from apples, Nova Scotia, although a farming province, is an importer of farm produce, which, of course, is another way of saying that Nova Scotia mixed farmers usually enjoy a higher price for their produce than do farmers in other provinces where a surplus is produced for export. That is a broad statement, of course, and possibly could be contradicted by the individual experience of certain farmers and in isolated cases during the marketing season.

To improve the dollars and cents situation of individual farmers, it seems to be common sense to proceed along two roads. First, to make an effort to produce larger yields per acre of all crops and, secondly, to grow more acres of crops. It is perfectly obvious that the proper way and indeed, the only way, to grow more crops, is to grow more crops. To do this, we must, of course, begin with the soil. And so another aim of agricultural education should be to disseminate as rapidly as possible a knowledge and an understanding of soil management, soil deficiencies, through the mediums of soil surveys and soil testing, so that the majority of the enterprising farmers will be in a position to follow the most effective methods of cultivation, and use the proper fertilizers for his particular farm and field, thus avoiding a lot of lost motion and needless expense.

Once a proper knowledge and understanding of the soil has been reached, the next step is, of course, to acquire a knowledge and understanding of seeds and crops. Immediately that we begin dealing with seeds and crops and growing them, we automatically come face to face with weeds and plant diseases, as well as insect pests of many kinds. Thus it is necessary for an agricultural education to include in its aims a knowledge of ways and means of not only growing crops, but of combating and controlling their enemies.

The next logical aim, of course, is to spread understanding information about the production of live stock, poultry and the products thereof. Broadly speaking, permanent agriculture in the mixed farming areas is, of course, based upon the production of farm crops, feeding them to live stock and marketing the crops in the form of meat, dairy products, poultry and poultry products, eggs, etc. And so this particular aim involves a knowledge of animal husbandry in general, feeding the different kinds and classes of live stock, a knowledge of feeds, how to select feeds according to their feeding value, in relation to the market price, a proper understanding of the value of legume hay which farmers can grow on their own farms, along with root crops, silage, and, of course, the cereal grains, notably oats and barley, which grow so well on most Nova Scotia farms.

Still another aim of agricultural education should be a proper working knowledge of the markets for farm produce, even though Nova Scotia agriculture in the main, that is, to say, aside from the apple industry, and certain seasonable crops, such as strawberries, need not go outside the boundaries of the province for a market, yet the fact remains that disorganized marketing, or unbusiness-like marketing, always results in disappointment and discouragement and a loss of many dollars. It is obvious, therefore, that one important aim of agricultural education should be to develop and establish in the minds of farmers and rural boys and girls, a business-like attitude toward the marketing of farm produce. That is, to say, impress upon them the importance of realizing the full cash value of their products. The vital point in successful marketing is the desire to get an adequate return from the produce based upon the understanding that adequate returns cannot be realized unless the product is of high quality, properly packed and officially graded. When all of these things have been achieved, then the desire to get the last dollar from the produce will automatically lead to the proper method of marketing to attain that objective.

Another aim, and a vital one, and the last one I shall deal with in this article, is that of developing in the minds of citizens, rural and urban alike, enthusiasm for agriculture, for rural life, for comfortable homes, adequate schools, churches,

and finally, a proper appreciation and understanding of the importance of agriculture's contribution to our provincial and national life. That contribution is not limited to the food we eat and the clothes we wear, but consists also of men and women, who having profited by these aims in

agricultural education, and are equipped not only to carry on and improve the farms and rural homes of the country, but also to bring a broader understanding of the interdependence of rural and urban centres to the business, commercial and professional life of our towns and cities.

Adult Education and Co-operative Movement in Eastern Nova Scotia

By A. B. MACDONALD*

DURING the past sixty years or so, eastern Nova Scotia, in common with all other parts of the Maritime Provinces, suffered severe losses in population. The great industrial developments in the United States during this period and the lure of Western Canada drew away many of the inhabitants of the farming and fishing villages. In addition to the migration brought about by these causes, the boom in the steel industry at Sydney and in the coal fields of Cape Breton caused a still greater depopulation of the rural and fishing communities. To such an extent did this go on in the period referred to that many communities fell below the normal minimum of man-power needed for efficient community effort. Consequently the people were found to be discouraged over the prospects of the industries in which they were engaged and in danger of becoming victims to false economic and social theories.

After a survey of such conditions in the constituency and after noting the meagre educational equipment of its 200,000 people, their limited outlook and the ruthless exploitation of them by private interests, the clergy of the Diocese of Antigonish and of its University, St. Francis Xavier, concluded that the solution of the economic and social problems of the people lay mainly in the initiation of a program of adult education that was thought would accomplish the following results:

Through the dissemination of ideas the people would be motivated to do their everyday work in a more efficient manner and thus help to solve their production problems.

The people would be spurred on to take a greater interest in economic and social affairs, and in time be conditioned to carry on many of the business activities of the communities that were previously carried on by private individuals.

Improvement in the social, cultural and religious activities of the communities would follow from wider participation on the part of the people in their economic affairs.

Through the acquiring of facts and information with regard to local conditions the people would be led to discover new ways of doing things, and to develop new local industries which would help to bring them a greater degree of economic security.

Consequently the Extension Department launched out on a program of adult education. A variety of agencies has been used to promote adult study. The most important of these and the one which is emphasized by the department more than anything else is the "study club." Such clubs are formed in the farming, fishing and mining communities and are very informal in character. Each club is composed of from five to fifteen members with a general average of about ten to a group. The groups select their own leaders and meet weekly in the homes, in community halls, school houses or any other convenient place. Little attempt has been made by the department to get them to follow a uniform method of procedure. As long as a few friends or neighbours are anxious to meet for the purpose of reading, studying and discussing in a friendly way the literature supplied by the department, it is recognized that effective work will be done. There were approximately 1,000 clubs organized during the past term, having a total enrollment of over 10,000 men and women. Once a month the several study clubs of a community meet for an associated study club rally which usually consists of reports from the various clubs, discussions, entertainment, and talks by special speakers.

To supply the clubs with reading material the department publishes the "Extension Bulletin" every two weeks during the scholastic term. The articles in this publication are read, studied and discussed by the members. In addition to the

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