REPORT ON INSTRUCTION IN AGRICULTURE IN THE PUBLIC SCHOOLS.

In reporting upon the feasibility of providing instruction in the Elements of Agriculture for rural communities, it is necessary first to consider whether such instruction is desirable. To determine this it is necessary to make a brief survey of existing conditions, both in the country and city.

I believe it will be conceded by all, that the purpose for which the public school system is organized and maintained, is the training for good citizenship. One of the first essentials of good citizenship is, that the individual shall be so trained as to be not only a self-supporting member of society, but so that he may be able to support those dependent upon him. An education which does not keep this end in view, is of but little value, and it is doubtful whether there can be any justification for support by public taxation of a system of education which ignores this element.

This does not mean that it is the function of the public school system to fit individuals for the immediate practice of whatever vocation they may decide to enter. While public interests may justify special lines of training for particular fields of activity, there must necessarily be a limit beyond which public education cannot wisely go in this direction. It is a recognized fact that the environment in which children are reared is, generally speaking, the one in which they are likely to continue in later years. We do not expect that the city-bred children, educated in city schools, will to any large extent find their future occupations in the country. And while it is true that there is a larger movement from the country to the city than from the city to the

country, it is still true that the majority of those reared upon the farm, will likely continue their activities in later life under conditions which obtain in the country.

I take it that it will be conceded that in the city schools an effort should be made to awaken an intelligent interest on the part of the children there being trained, in their immediate environment — not that their interests shall be confined wholly to the conditions of city life — but since they are likely to remain in the city, the necessity for the development of such an interest as will make the success of their life work more probable, seems evident.

The relations between country and city are becoming more close year by year, and it will therefore be clear that the city boy and girl will be more likely to succeed in the environment of the city, if they know something of and have some interest in the conditions which surround and control the activities of country life; but it will always remain true that their largest interests are concerned with the things immediately about them.

It is equally true that the education which the country boy and girl are to receive, should put them in touch with their environment, and should awaken an intelligent interest in the things immediately about them, and make clear to them the possibilities for intellectual activity and development for the individual who lives in the country. It should make clear to them the necessity for something more than hard physical labor for success upon the farm. It should make evident to them that a trained intelligence brought to bear upon the problems of farm life is a necessity for the highest success, and that when so brought to bear, if coupled with industry and economy, will produce financial returns coming to but a small proportion of those who find their life work in the cities.

If these premises are correct, then it follows, that the country boy and girl should have opportunities in the schools open to them and which they are able to attend, for securing a more intimate knowledge of the things with which they are likely to be concerned in after life, than is now afforded. They have a right not only to this knowledge, but to the kind of training necessarily re-

quired in securing it. It is important, to them also, that through this knowledge and training there shall come the development of a new set of interests, which under present conditions rarely exist.

To say that the country boys and girls, 98 per cent. of whom secure in the district schools all the education which they receive in any school, should be compelled to enter upon their life work with little or no knowledge of the myriad forms of plant and animal life about them, of the quality and composition of the soil from which they are to secure their livelihood, with no appreciation of the fact that successful agriculture demands the application of a wider range of scientific principles than any other vocation, with no knowledge of the facts and principles of science applicable to agriculture and with no interest in them, with no appreciation of the fact that modern industrial development with its improved means of transportation and communication, makes the problem of competition as vital a one for the farmer as for the merchant or the manufacturer, is to rob them of the very things which are essential to success in their life work, as measured not only from a financial standpoint, but from the standpoint of the development of the individual.

No one who knows anything of the teaching in the country schools, will contend, for a moment, that they are at present doing these things for their pupils. No one who knows the facts as to the age at which a majority of the pupils leave even the district schools to begin work, will claim that all that ought to be done for them can possibly be done under existing conditions in those schools. This is true, because the comprehension of the basic facts and scientific principles which it is necessary to know and apply in successful farming, cannot be secured at the early age at which most pupils leave these schools. Whatever might be done for them in the way of study of the things about them to quicken their intelligence and awaken their interests, is done to-day in very few schools. The only opportunity afforded the country boy in Wisconsin to secure any working knowledge of the scientific basis of agriculture, is that given in the agricultural department of the State University. That department is doing a

grand work, not only for the development of the young men who attend it, but for the material development of the entire state. At the present time, crowded as it is beyond its capacity to adequately care for those who are in attendance, less than five hundred boys from our rural population are securing its advantages. These boys when they go back to the communities from which they came and put into practice what they have learned at the University, show the beneficial results of the kind of training given there. Their influence affects others, and is ever widening. That influence would extend much more rapidly, and improvement in modes of farming would make more rapid strides, if opportunities were afforded for awakening the interest and intelligence of the boys in every farming community in the state, in matters which vitally concern the people of these communities. The high schools which exist in the cities and villages offer but few opportunities for the country boy and girl to secure the kind of training which would be most valuable for them if they are to remain upon the farm. They will get in these schools a general training, such as comes from the study of books, but the farmer has to deal not with books alone, but chiefly with things, and the high school does not effectively train its pupils for this form of activity. It becomes evident then, that it is desirable to modify in some considerable degree the work now done in the district schools, by offering in them instruction in the study of nature, or in other words, through training which will develop the power and the habit of close observation of the things about them, an interest in whatever pertains to rural life, and a tendency to look for the reasons for things. Whatever can be done with pupils of the age of those found in the district schools to cultivate a taste for the study of nature in its various forms, should be done. This should be supplemented by a class of schools to be established in farming communities, which shall undertake to carry on this work beyond the district schools, where it may be easily accessible to the country pupils, and at low cost.

For this modification of work in the district schools, but little can be hoped under existing conditions. It

has been attempted in our own state and in other states and countries, and in every case has proven a dismal failure, except where teachers have been specially trained to do this kind of work. Our Wisconsin teachers do not have this training at the present time. The normal schools are doing something in this direction, but may and ought to do much more. But even then, the results would be meagre in the great mass of the district schools, for most of these schools are taught by teachers who have not had the advantages of normal school training. The teachers' institutes have for two years been undertaking to awaken an interest in this work, and, so far as possible, have offered instruction during the brief time they have been held, which should aid the teachers in carrying it on. Were the funds for these institutes adequate to furnish the full quota of institute work called for from the several counties of the state, much more might be done than it is possible to do at the present time. Even then, the constant change in the teaching force, by which probably not less than two thousand new teachers enter the public schools each year who have not been specially trained, it would be impossible to carry on the work continuously and effectively in a large number of schools. Even under the best conditions possible of realization the extent to which this work may be successfully carried on in the district schools is necessarily limited. If communities would take advantage of the possibilities growing out of the consolidation of schools and transportation of pupils at public expense, by which the children of the entire township could be brought into one central school without any increase of expenditure, it would be possible to secure teachers trained for this work, more regular attendance, and therefore, better results. Even then much would remain to be done. The class of schools I have already suggested, which should offer in each agricultural county an opportunity for the pupils after completing the district schools to carry on this work nearer their own homes, where they can attend without any large expense, is needed, if our public school system is to adequately do the work of training for citizenship demanded by modern conditions.

Elementary and secondary instruction in agriculture is something comparatively unknown in this country. To show that it is not an untried experiment, and to give an idea of what is being accomplished elsewhere, the following statement of what is being done in foreign countries is presented.

Acknowledgments are made to Prof. F. W. Woll, Assistant Professor of Agricultural Chemistry, University of Wisconsin, and to A. C. True, Ph. D., Director of the Office of Experiment Stations, U. S. Department of Agriculture, for valuable information concerning the status of Agricultural Education in the Scandinavian countries, Finland, and Belgium.

DEVELOPMENT OF AGRICULTURAL INSTRUCTION IN OTHER COUNTRIES.

THE SCANDINAVIAN COUNTRIES.

Norway, with a population of two million, had in 1896 forty-two institutions for agricultural instruction, research, or control. Sweden, with a population of less than five million, had eighty-six such institutions. Denmark, with a population of less than two and a quarter millions, and an area of 15,289 square miles, has twenty-eight such institutions. Finland, with a population of less than two and a half millions, and an area of 144,255 square miles, had 49 such institutions. These institutions in the four countries, were classified as follows:

Agricultural colleges	5
Agricultural intermediate schools	2
Agricultural elementary schools	87
Dairy schools	46
Horticultural schools	10
Forestry schools	5
Farriery schools	4
Chemical control stations	11
Milk control stations	3
Seed control stations	25
Experiment stations	7

The four countries have on an average, an agricultural school for about every 58,000 of the rural population, and a control or experiment station for every 220,000