

Years ago, in the age anterior to agricultural colleges, a man with such an education was one who, after patient years of wrestling singly and alone, had discovered a few of the principles of science and harmonized them with his practice, usually while going down the declivity of life—truths which a school-boy now can glean during intervals of play.

A scientific agricultural education to-day consists in adding to the practical knowledge acquired by every day life on the farm, all that has been determined by scientific research and experiment relating to the business. Who, then, possesses it? Will some one tell us who? That matters not; the peerlessness of the attainment only strengthens our argument as to why it should be the aim of every one intending to farm to acquire this, so far as in him lies, if the principle that we have laid down is correct, that the scientific and practical go hand in hand.

What the definition of this may be in coming days when "carnival" shall be held in the great scientific temple, it is not easy to say. In the past, practice has occupied nearly the whole house. At present science has at least one good room. In future it may claim more than one half; but that which affects unborn generations need not trouble us so much.

From our definition of a scientific agricultural education of to-day, it follows that the same cannot be acquired from practice alone, and hence the man who ignores agricultural schools and books and papers bearing on the subject, can never be a scientific farmer, though he should possess the wisdom of a Solon. However well he might be up in the practice of farming, it would only be the practice of his ancestors handed down by tradition, and such practice of his neighbors as had come under his circumscribed observation, together with the few discoveries which he had picked up in his short life.

It is equally clear that it is not absolutely necessary that a college must be attended in order to acquire the determined in the agricultural sciences, as this can be picked up from books by the mind with sufficient breadth to grasp their teachings. But this can never be so effectively done at home, except at the sacrifice of much valuable time, on the acknowledged principle that any pupil seeking light will obtain it much more rapidly with the assistance of a teacher, hence the argument in favor of agricultural schools.

It is also apparent that the agricultural scientist will not be a success, unless familiar with the practice of the science, the teachings of which he inculcates, as in such a case he can only, parrot-like, speak of what somebody else has taught him, or of what he has acquired elsewhere, hence he can never do anything beyond handling the productions of other minds, and in a plummet and rule fashion that can never suit the elastic nature of scientific agriculture, with her never-ending variations; hence the incalculable importance of having only practical men as professors in all our agricultural schools.

It follows, then, that agricultural schools are a necessity, that it is the duty of every country in some way to provide them, and that it is a matter of tremendous import that they should be efficiently conducted. It is also a matter of prime importance that the class for whose welfare they have been opened should be fully alive to the importance of availing themselves of their benefits. The worth and efficiency of an institution is not always to be gauged by the degree of the patronage it receives from the class whom it is intended to help on. Ragged schools in the old world would never have found a pupil, had these not been sought out in the dens and slums of over-crowded cities, and been compelled to come in. Who for a

moment will deny that these merciful institutions have not proved of immense advantage to the parties whom they have thus aided, by, as it were, thrusting upon them an education that they did not want? Again, who has not heard the story of the assembled Indian chiefs, who in solemn conclave declined the munificent offer of the United States Government to educate gratuitously a number of their sons, and thus make them acquainted with all the advantages of civilized life? The ground of their declination was, that the teachings of the white man made them good for nothing. Our soul goes out in sympathy to the forest braves who in the haze of intellectual darkness that surrounded them had never caught a glimpse of that strong light that rules the intellectual day of modern civilization. But while we compassionate the newspaper man of to-day who tells us that we do not need agricultural teaching in our schools, we cannot feel for him as for the untutored chieftains, as the former is deliberately shutting his eyes to the light that encircles him. We must therefore have a certain degree of intellectual advancement before agricultural schools will be appreciated, and as a matter of course they will be least valued and most spoken against by the less educated and least enterprising portions of the farming community. Looking up from this standpoint, our sky is very bright, if not absolutely cloudless. Enlightenment is advancing at a rapid rate even amongst the farmers, the last move, owing to the isolation that has always proved a barrier to their progress. Can we not look forward to the coming of that bright era when farmers' sons, who have not availed themselves of the advantages of a scientific education, will be in the minority.

The man, then, who does not read, can never be fully equipped for the great work of tilling the soil; the man who does will be more fully equipped; but the one who reads and avails himself of the advantages of agricultural schools, will be most fully equipped, never losing sight of the idea that the practical instruction or learning goes on at the same time.

Agricultural schools are thus shown to be a necessity, as stated above, but whose duty is it to support them? Some seem to think that they should be self-supporting, and others, that they should more than pay their way. "Vain reason all, and false philosophy." Our national school system has for one of its pillars, State support, from the foundation-stone the common school, onward to the keystone, the university. We can conceive it possible to support an agricultural college pure and simple, without State aid, if the fees were made sufficiently high, but such a school could not impart the teachings of other men, and make known the conclusions of scientists of other lands, which might or which might not be applicable to the practice of our own. Such a school could never command the respect of our country, much less that of surrounding nations. Without continued experimenting our land can never keep abreast in the onward march of the nations; and this can only be done by some philanthropic man of wealth or by the support of the State. The latter course, with some disadvantages that may cling to it, is immensely the superior, as it preserves the important work of experimenting from being confined to the ideas of one man, some of which must be inferior to those which are the product of the combined wisdom of the Legislature. From this it follows that the work of sustaining one or more experimental schools in our Province is not simply optional, a matter of expediency, but an imperative necessity, an institution which must be supported, no matter what shade of politician is in power, else we forfeit our vantage-

ground of standing in the front rank in agricultural progress.

While it is very proper that a strict supervision be exercised over the expenditure of a Government agricultural school, and while no office should be created that is not an absolute necessity, it is very absurd to expect such an institution to pay its way. If the fees are made so high that this can be accomplished, a barrier is at once raised which will prevent a large majority of students from attending, which would be a great misfortune. It is from the middle ranks of the farming community that the students principally come, and these could not afford it. It has been argued that with an array of students so large, the work of an experimental farm should be handsomely carried on without calling in the aid of additional hired help. But it should be remembered that effective study cannot be done when the body is tired, or in a measure physically exhausted. Any more physical exertion in such a case than is sufficient for maintaining the health, militates against mental progress. It is very proper that the exercise taken by the students should be in the line of their work, but in no case should they be placed under the hard condition of sacrificing individual mental progress to the financial advancement of the public government school.

Again, take a number of raw recruits, such as sometimes infest these institutions from the higher ranks, lads who have only been educated in idleness and the long list of abominable practices that are its certain outcome, place them in charge of a canny old farmer and say to him, "Do your farm work with these." What would the old man say? We are not sure that he would go the length of calling in the aid of a police officer to hurry them away, but he would very soon escort them to the highway; and yet this class of material (in part) is that with which the professors are expected to carry on the work of an experimental farm.

We have one experimental farm in Ontario, as every body knows, and who, we ask, is prepared to say that we should not have one? We do not say that it is perfect, in this sublunary sphere, where perfection has been sought for in vain for 5,884 years in purely human institutions. Its professors will be foremost to say that it is far from perfect, and we shall hope that it is their high patriotic aim continually to improve it. But with all its imperfections it is gratifying to know that it stands high in the estimation of the foremost of the nations. Men who sit on the highest peaks of scientific agricultural attainment speak well of it, and the homage paid to its worth by foreigners, who furnish a large contingent to the ranks of the students, is in itself a high tribute; and the good work it has done in the Dominion gives it a warm place in the affections of a large portion of the people. When strangers visit our shores it is one of the places that we importune them to visit, and always with a sense of gratification—the outcome of the estimate we have of its national worth and efficiency. Surely the politicians of every hue and shade in the farming community can afford to bury the hatchet, and unite in heartily supporting this national institution, and in making it not only the pride of our own country, but a beacon in agriculture to every land.

It is exceedingly to be regretted that a mistaken idea has gone abroad regarding the objects of our Ontario Experimental Farm, and has taken such a firm hold on the minds of so large a portion of the farming community. They view it as an institution which is intended to instruct persons who know nothing about farming, as the sons of citizens. Reverse this and we have the true idea. It is in no wise intended to teach the primary principles of farming.