

duplicate, slightly better results were obtained from sowing a bushel of barley per acre than from seeding alone. On the College plots, they now sow alfalfa in spring with a bushel of barley per acre.

Experiments with barnyard manure, hen manure, and various kinds of commercial fertilizers, indicated that this land, which is in excellent heart, being well supplied with lime and the mineral elements of fertility, was not badly in need of enrichment. In one test, 12 tons of manure per acre before seeding gave an average yearly increase in the following years' hay crop of only about half a ton per acre. In an experiment with 20 tons of farmyard manure, compared with 5 tons of hen manure, applied on well-established alfalfa, somewhat similar results were obtained, the hen manure producing rather noticeable results at first, but the other proving more lasting. In the experiments with fertilizers, the phosphatic fertilizers gave the greatest yield per acre, but the results were not at all marked. Readers are warned, however, that on lands less abundantly supplied with fertility, the benefits of fertilizers would probably be much more pronounced.

Under head of "Uses," we read, "Alfalfa can be used in Ontario for the production of hay, green fodder, pasture, seed, green manure, silage, a cover crop in orchards, etc. It is quite probable that its use in this Province will be in about the order in which the list is here given. For the production of hay, it is a most valuable crop, producing, under favorable conditions, large yields of excellent quality. The green fodder is both nourishing and appetizing." As part of a permanent-pasture mixture for soils to which it is adapted, alfalfa is highly commended; pastured alone, it is attended with some risk from bloating. Under the head of "Quality as a Feed," analyses by Prof. Harcourt, of the O. A. C., are cited, showing that it contains about one-third more protein than red clover, and about three times as much as timothy. Some American investigations quoted make even better showing, indicating that it contains about 50 per cent. more digestible protein than common red clover. When it is known that protein is the element which gives bran its peculiar feeding value, the advantage of alfalfa hay may be more fully appreciated.

An important section is devoted to the influence of alfalfa roots on the soil. Grain was grown experimentally upon alfalfa and timothy sod, the former in every case giving much the larger crops, yields per acre being as follows: Winter wheat, 61.5 bushels on alfalfa sod, and 42.1 on timothy; barley, 30.2 on alfalfa sod, and 19.7 on timothy; corn, 24 tons on alfalfa sod, and 17.9 on timothy. As to the physical condition of the land, it was found that, while alfalfa was harder to plow than timothy, owing to the immense thickness, length and strength of its tap-roots, yet the upturned layer of soil was much more friable in the alfalfa than in the timothy stubble, and when some of the long roots, to a length of two, three, four or five feet, or more, were pulled out of the subsoil and deposited in the surface furrow, the land was left in excellent physical condition; and, as the roots decayed, they supplied a great quantity of humus rich in fertilizing elements.

#### FARMERS' CLUBS.

During the last couple of years, through the efforts of the various Farmers' Institute secretaries, and with the aid of the Superintendent of Farmers' Institutes, here and there, Farmers' Clubs have been formed. The rules and regulations are simple, and can be obtained by anyone interested who applies to the Superintendent, G. A. Putnam, at Toronto. However, it is not the forming of these Clubs, but their value, that this article is intended to discuss.

#### DISADVANTAGES OF ISOLATION.

Some years ago a British statesman spoke of Britain's splendid "isolation" which has kept her apart from the nations for centuries. A similar "isolation" has kept the farmers apart, but, unlike Britain's "isolation," ours is to our disadvantage. The failure to get together like all other classes, to first get acquainted and learn to know and trust one another, and second, discuss matters pertaining to our business—and under business we include all questions that affect the farmer—has left us as we are to-day, unorganized, and therefore at the mercy, to a certain extent, of all properly-organized classes. To-

day, from the so-called professional classes, down to the bootblacks, there is organization. The members of each organization stand together, trust one another, and in their union lies their strength. They study their own problems, and stand out for what they consider to be the solution of these problems. Farmers, through their lack of organization, put in their time in wasting wind, which, on account of their environment, falls on empty air. Co-operation for a few decades would produce a totally different state of affairs.

#### DISCUSSION OF FARM PRACTICE.

Besides learning to stand together, a discussion of subjects pertaining to our own occupation, viz., tilling the soil and raising stock, would result in improved methods and an increased output. In England, those districts that first took precedence over the others, were those where a few farmers met each week at one another's farms to look over the crops and stock, hear the owner describe his methods, and discuss with him whether or not these were the best for his conditions. In this way, new ideas and methods were brought out, and steady improvement made in farm management. Each district has problems to solve peculiarly its own. These can only be satisfactorily solved by the farmers themselves, aided by general principles, and all the particular cases and their solutions that are on record. These studies can be made of great educational value. Not only may home conditions be studied, but conditions and practices of other districts, Provinces and countries will also come up. Knowing not only how, but why, makes the difference between the fellow who owns the mud and the one who owns the sunshine as well. In order to be good farmers, we cannot know too

that confronts many Ontario men. Now, we presume to say that, had our foresight been as good as our backsight, this scarcity, with its consequent losses, might have been averted. Had the question of a likely shortage of feed been discussed early in the year 1907, when it was seen that hay was going to be a short crop and grain uncertain, many feeds might have been sown which would have made up largely for the shortage. As one instance: A short time ago we heard an Institute speaker tell a story related to him by a well-known secretary of one of the leading Farmers' Institute Associations. This secretary said: "About fifteen years ago there occurred a shortage in this district which caused much loss. Next year the growing of soiling and other supplementary crops was discussed, and, as a result, for several years there was abundance. Good times and crops made men careless again, with the result that to-day we are worse off than we were fifteen years ago. One wide-awake boy, however, in my own district noticed that eight acres of his crop was a failure. He asked me what was best to do. I urged him to plow it up and sow to corn. He did so, with the result that he has been able to sell over four hundred dollars' worth of hay that would have been required for the stock on the farm had the corn not been sown." This boy had foresight. Our backsight now tells many of us we might have done something similar with good results. This was just another instance of the value of getting together and discussing one's own business.

#### COHESION AND CO-OPERATION.

A burning question is the marketing of all agricultural produce. The toils exacted by the middlemen are out of all reason. By the organization of Farmers' Exchanges and concerted action on the part of the producers, these things could be greatly lessened. The method of dumping nearly all our produce on the market at one time of the year, whether the market is up or away down, stagnates trade, and has a ruinous effect on prices. Our perishable products could all be held in cold storage, and sent forward as demanded. A steady, brisk demand, and, consequently, fair prices, would be the result. The bulls and bears would not be found on the market, which would be a blessing to both producer and consumer. Co-operation has done much for the minority wherever tried; why should not the great majority of the people of this country profit, also. Adhesion is hardy enough. Cohesion would be what is necessary.



Hawsker Rosina.

Hackney mare; chestnut; foaled 1901; sire Rosador. First in class and champion, London Hackney Show, March, 1908.

much about our own profession. A wide knowledge of the History of Agriculture, past and present, not only makes a better farmer, but also a better man in every sense of the word, for knowledge adds dignity to any profession.

#### DISCUSSION OF PUBLIC QUESTIONS AND INTERESTS.

Provincial or national problems can be better studied and discussed by a club, though the individual will do well to keep himself informed where no such club exists. To-day, many Provincial and National questions are calling for solutions and adjustment. Questions relating to trade and commerce; the tariff; Government ownership; the disposal of public lands, whether timber, mining or agricultural; and the taxation of railways, should be studied, and could be discussed by any live club, with benefit to the members themselves and the country.

Take the case of the taxation of railways. One township collects less than three hundred dollars. Were these roads assessed as they are in the State of Indiana, viz., twenty-two thousand dollars per mile, and taxed at the ordinary rate current in the said township, the taxes would amount to over ten thousand dollars. In Ontario, according to a recent writer, the railways pay one-twentieth of one per cent. taxes on their bonuses. The railways will never ask to be taxed. It is the duty of the citizens to bring it before the legislators in such a way as to command respect.

Many other problems might be discussed. Here we have just a few subjects that it is the duty of every good citizen to know something about.

#### HINDSIGHT VS. FORESIGHT.

Just now the scarcity of feed is a problem

#### MUST DEVELOP OUR OWN REPRESENTATIVES.

Another thing that often causes the observer to pause and consider is why agriculturists are represented in the Provincial Legislatures and in the Dominion House by so many lawyers and other professional men. Ninety-six lawyers in the Dominion House out of two hundred and fourteen members, while farmers number about fourteen. Seven-tenths of the people of Canada are represented by fourteen members out of two hundred and fourteen. No one would admit that the average boy who stays on the farm is less intelligent than the one who studies law or medicine. These latter get a training in public speaking and in debating. This training could be obtained largely in any well-run Farmers' Club. One old-time club trained all the M. P.'s for the county for over a quarter of a century. At the same time, other counties were importing their representatives from outside. Not that these other counties had not the men, but they had not men trained to think, and give clear expression to their thoughts while on their feet.

Give the boy on the farm half the chance his brother gets, and we shall not be in the humiliating position of not being able to furnish our own representatives. Moreover, if the young people are given a chance for self-improvement at home, there will not be so many ever ready to flock to the city. To-day, a training that will fit the farmer to fill justly, honestly and well both private and public offices, has become an imperative duty of every citizen of this Province of Ontario, if agriculture is to occupy its proper position as the first and most useful of all professions.