

Can the Farmers Combine?

The success of co-operative dairying in Canada, the Farmers' Binder Twine Factory at Brantford, Ont., and the progress now being made by several pork-packing establishments, the stock of which is mainly held by farmers, has caused many to look forward to the time when a much larger proportion of the products of the farm might be advantageously disposed of in that way.

Fifty farmers near the town of Solomon, in Central Kansas, embracing men of all political parties, last summer formed a co-operative grain-buying company. Their number included 90 per cent. of the wheat raisers of that section, some producing as much as 20,000 bushels and most of them having at least 5,000 bushels as the season's yield. Their investigations showed that the local buyers were paying 14 cents a bushel less than the Kansas City market, while 8 cents margin would meet the expenses. Their company had but \$2,500 capital; each member had but one vote; the officers elected included a banker, a former member of the legislature, and, as manager, a practical grain buyer and miller. They bought a small elevator, instructed the manager to pay within 8 cents of the market, this margin meeting the transportation charges, and began business. As was to be expected, the rival buyers sought to take away the business by paying more than the farmers' company, and did so for several weeks. Here was where the farmers met the situation. Under their agreement whenever more was paid elsewhere the members were instructed to sell in that market, but for every bushel sold thus one cent was paid to the co-operative company. As a result the farmers' elevator stood still, but the treasury was kept full and the members gained six to seven cents a bushel on their wheat. One day a railroad blockaded their elevator with coal cars. They made no complaint, but transferred their shipments to another road. The cars were soon moved and since then plenty of transportation has been furnished. As the rival buyers ceased high figures the elevator began business, and during the summer and early fall has purchased 80 per cent. of the wheat marketed at that point. The profits have been enough to pay dividends amounting to about fifty per cent. on the original investment of the members. The success of the plan has resulted in the organization of many other similar companies.

The plan of these farmers, observes the New York Independent, is nothing more than co-operative bargaining, and differs from the usual co-operative effort of farmers in that it is managed by experienced business men. The same collective impulse that has been the basis of manufacturing combinations or "trusts" is here applied to the farmers' affairs and furnishes an example of what can be accomplished when there is at the bottom, not politics or revenge, but business. The vagaries of some radical political methods and advice in the West in past years have given false impressions of possibilities in farmers' combinations. Hundreds of Grange stores have met with failure because they were political in their nature rather than businesslike. Farmers have sought to limit the product of fields by agreement or have attempted to obey the injunctions of "hold your wheat" circulars in a haphazard, formless manner, resulting in nothing practical or effective. It has usually been found in the end that they were being used by speculators for personal gain.

Such enterprises, to be successful, must not be paternal or sectional, but practical and wholly businesslike—and those who embark must bear in mind that they assume the additional cares and risks incident to trade and commerce.

Co-partnership with Nature.

Do farmers know that no other legitimate business in the world presents greater opportunities for profit than theirs? Take the possibilities of a kernel of corn for illustration. Planted on a piece of earth 2 by 2 by 1 feet, and it will produce two ears, each containing 400 kernels, or an increase of 800 per cent. in four months time. Where is the trade or business in any city which will return half so great a profit per annum on an investment? The growth of vegetation pays Nature—she grows rich. And if a field of corn, increasing at this marvelous rate, does not pay its owner, there surely must be something the matter with the man. It is not the plant or the field, or the business which is at fault. For ever and ever, so long as the world holds men, there will be a demand for food, and every particle of it must come out of the earth or the sea. And every ounce of food is, first of all, a plant. For ever and ever, then, will there be a demand for plants. The growing of food plants can never cease to be profitable if the right man and correct management are at the helm.

Keeping Our Fields Under Crop.

The breaking-up of the soil constituents into available plant-food is at its maximum in land under tillage, and the more extensive the cultivation, usually, the more active are the chemical agencies at work providing for plant nourishment. Proper and sufficient cultivation should therefore be the farmer's first care, but it is equally important that the food thus prepared should be retained to the benefit of the plant, and means adopted to prevent its removal in any other way than through the channel of vegetation. The soil must, of necessity, always be the feeding ground of the plant and the direct source of plant nourishment. The ease, however, with which this food material is removed from the soil by leaching, surface-washing, etc., renders it very important that it should, as far as possible, be otherwise stored until immediately required by the plant, and that the plant should be present to utilize it as fast as it is made available. The decadence of the bare fallow, in Ontario farm practice at least, is an indication that this fact is being recognized. It was once thought necessary by the best farmers to rest the land for a season and renew its productiveness by extensive cultivation, and the crop yield of the subsequent season seemed to warrant such action. The treatment given the land opened it up to influences whereby the inert food was reduced to an available form, and hence its immediate productiveness and apparent gain in fertility. This same treatment, however, made the soil more subject to the forces by which soluble plant-food is so easily washed out of the soil, and during the long period in which there could be no retention by vegetable growth a great deal of valuable material had gone down the streams. The soil thus, rather than becoming richer, had actually become poorer in the total food constituents available and unavailable. By continuous cropping this loss would have been to a great extent prevented, for the growing crop and the one properly housed are not affected by the leaching and washing agencies, and they are both ready when required to contribute, either by green-manuring or through the agency of farm stock, to the food supply of subsequent crops. The necessity of keeping something growing on our fields continuously being thus apparent, we can not only dispense profitably with the bare fallows, but should seek, as far as possible, to extend the growing period every year. Early-maturing crops may be immediately followed by other crops sown for fall pasture, for plowing under, or, in the case of some biennials, for a crop the succeeding year. The crops are various that may be utilized in this continuity of vegetation. The clovers, rape, buckwheat, and the winter grains, all have a place, and some of them can always be adapted to most farm conditions. This continuous cropping may appear to interfere somewhat with the amount of cultivation we think desirable. We may be satisfied, however, to let vegetation itself do a great deal of this work for us. In this connection the value of alfalfa and the deep-rooted clovers cannot be overestimated, for in addition to their now well-known function, along with all other legumes, of utilizing the free nitrogen of the air, they possess the faculty of reaching down in the opposite direction and performing work that no implement of tillage can do so effectually. A great deal of food material that has leached through the surface soil, beyond the limits of ordinary vegetation, is arrested by those roots, and this, along with new material acquired at those depths, is brought to the surface. All vegetation, however, possesses a value as a substitute for cultivation. The decay of the roots renders the soil more porous and susceptible to atmospheric influences, and the texture generally of the soil is improved—the same results as effected by tillage. But 20th century farming admits of more cultivation, along with contemporary vegetation, than heretofore. Deep cultivation, unless in exceptional cases, is not thought so necessary as formerly, and surface cultivation is now pronounced possible under conditions in which it would once be deemed ruinous to vegetation. The modern "weeder," with its manifold functions as weeder, harrow, and mulcher, may prolong the season of cultivation even in our cereal crops, and the increase in the corn and root acreage generally makes possible on a large part of our farm a whole season of cultivation along with plant growth.

Different conditions, of course, will warrant a difference in practice, but we may safely say that there are few farms on which the period of growth may not be profitably extended without trespassing on the time for essential tillage operations.

Ontario Co., Ont.

J. W. WIDDIFIELD.

The Feeding of Silage.

Silage may be fed with advantage to all classes of farm animals, milch cows, steers, horses, sheep, swine, and even poultry. It should not be fed as an exclusive coarse feed, but always in connection with some dry roughage. The nearer maturity the corn is when cut, the more silage may be safely fed at a time, but it is always well to avoid feeding it excessively.

The silo should always be emptied from the top in horizontal layers, and the surface kept level, so as to expose as little as possible to the air. It should be fed sufficiently rapidly to avoid spoiling of the silage. In ordinary winter weather, at least a couple of inch layers should be fed off daily.

Silage is, above all, a cow feed. As with other farm animals, cows fed silage should receive other roughage in the shape of hay, straw, etc. One good combination in which corn silage may be fed is, silage 30 lbs., turnips 25 lbs., clover hay 12 lbs. and oat chop 8 lbs. per day to each cow. Many other combinations may also be used with good results, but it is not well to feed more than 40 lbs. of silage to each cow per day. Silage may be given in one or two feeds daily, and, in case of cows in milk, always after milking, as the peculiar silage odor is apt to reappear in the milk when fed just before milking.

Forty or fifty pounds of silage per day, along with turnips and roughage in the form of clover hay, cornstalks, etc., makes excellent feed for fattening steers. If the silage is made from immature corn, care must be taken not to feed too large quantities on the start, so as to avoid producing scouring. Young stock may be fed in proportion, with the same precaution as given for steers.

When fed in moderate quantities, not exceeding 20 lbs. a day, silage is a good food for horses. They should be fed only a little at first, and the quantity gradually increased according as the animals become accustomed to the food. A good way to feed silage to horses is to mix it with cut oat sheaves or cut clover hay and straw mixed, two-thirds cut feed and one-third silage.

Silage may also be fed with advantage to both sheep and swine, but only in moderate quantities. Sheep may be fed a couple of pounds each per day, but not to exceed five or six pounds per head. In feeding silage to hogs, care should be taken to feed only very little, a pound or so, at the start, mixing it with corn meal, shorts, or other concentrated feeds. Hogs for the market may be fed from three to eight pounds per head per day.

Clover and corn ensilage is looked upon with great favor among poultry-raisers. A good cheap way to prepare silage for poultry is to fill barrels with equal parts of second-crop clover and sweet corn, cut $\frac{3}{4}$ inches in length, and a small amount of pulverized charcoal. The barrels should be packed as full as possible, and the heads put in, which can easily be done by the use of a common jack-screw. The barrels should then be covered with horse manure for about a month, and then put away for winter, by covering them with cut straw or hay. Feed one pound of silage to five hens per day, mixing it with equal part of potatoes, oat chop and small wheat, and boiling it. Feed when warm and in the morning.

Perth Co., Ont.

C. A. SHIER.

Cutting Corn for Ensilage.

Comparing notes with my brother farmers during the past few weeks, I find one of the topics of complaint among those having silos was cutting of corn by the corn harvester, which is charged for by the acre, no matter what distance apart the rows may be in the field. The distance varies from twenty-six inches in one case to forty-four inches in another. We will compare these distances in a field of forty rods (tillable ground). In the narrow space there would be thirty rows, with a little overplus, but call it the thirty to the acre; in the wider space there would be eighteen rows to the acre. If cutting the thirty rows of corn is worth one dollar, then the cutting of the eighteen rows should be worth only sixty cents; or if the eighteen rows' cutting is worth one dollar, then the cutting of the thirty rows per acre is worth one dollar and sixty-seven cents. While it may be admitted that the driving at the ends of the field would entail more doing if cut by the row, yet the inequality of charge would not be so great as at present. These are figures from my neighbors. How is this work done and charges paid for generally throughout the Provinces? What is the fairest, best, and the general way of having the corn harvested in the different sections of the ensilage-corn neighborhoods? Has cutting by the hour or mile been found to have been a satisfactory mode of harvesting? Would very much like to hear from your readers.

York Co., Ont.

N. R. G.