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# FARM AND DAIRY

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### SUPPLEMENTARY FODDER CROPS—MERITS OF SEVERAL DISCUSSED

Prof. C. A. Zavits, Ontario Agricultural College, Guelph, Ont.

Crops to Supplement the Pasture are Necessary. Alfalfa a Splendid Supplementary Crop. Some Good Mixtures. Fodder Corn for Late Feeding.

THESE are but few farmers in Ontario who can afford to neglect the raising of fodder crops to supplement the pasture lands. While I claim strongly that our pasture lands should be greatly improved in this province, I also wish to emphasize emphatically the importance of supplementing those pastures with the best kinds of fodder crops. We frequently have hot, dry periods during the summer seasons that greatly reduce the amount of animal food produced from the pasture fields. If provision is not made, there is often a great loss in the flow of milk of the dairy herd, in the vigorous growth of young stock, and in the satisfactory increase in the weights of the fattening animals. A wise farmer will make careful provision to supplement his pastures either by the growing of summer fodders or by furnishing a supply of silage which can be used when required in the summer season. There are a number of supplementary feeds that can be used to advantage, a few of which are as follows: (1) Alfalfa, (2) A mixture of oats and peas, (3) Millet, (4) Corn.

#### ALFALFA AS A GREEN FODDER CROP

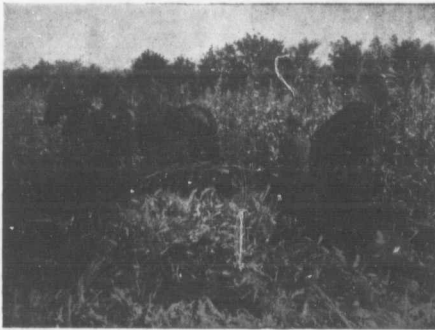
The growth of alfalfa in Ontario has been increasing during the past few years. It can be used to excellent advantage for the production of hay, of green fodder, and of seed. As a green fodder crop to supplement the pasture lands, it is one of the very best. The growth is usually large and is continuous throughout the season; its stolon properties are excellent; it will stand two, three, or four cuttings in one year; and it furnishes a large amount of feed which is both palatable and nutritious. As alfalfa is a perennial crop it possesses a great advantage in furnishing green fodder for several years in succession without re-seeding. It is exceedingly easy on the land, as so much of its valuable mineral matter is obtained from the subsoil, and of its nitrogen from the atmosphere. As a green fodder, it is relished by practically all kinds of farm stock. The fodder is so rich in flesh forming constituents that it becomes particularly valuable as a feed in the summer when the pasture lands are comparatively light in productiveness.

#### A MIXED CROP AS A GREEN FODDER

Numerous experiments have been conducted at the Ontario Agricultural College in testing the comparative yields of oats, barley, spring wheat, and peas both separately and in combination for the production of green fodder. Very satisfactory results have been obtained from the mixture as compared with the same grains grown

separately. Of the different mixtures used, a combination of oats and peas has given the best satisfaction.

Of the different proportions of oats and peas that have been tested, it has been found that two bushels of oats and one bushel of peas has given a large yield of crop that is of excellent quality. It is important, however, to select those varieties most suitable for the desired results. Such varieties as the Siberian or the Banner oats, and the Prussian Blue or the Golden Vine peas work nicely together. The oats are of good length of straw and are quite productive. The peas pro-



One Reason Why Dairying Should Be Profitable in Manitoba

Corn ensilage and alfalfa hay constitute the cheapest ration possible for getting results from dairy cows. Both of these crops can be grown in Manitoba. The illustration shows the corn binder at work at the Brandon Experimental Farm. —Courtesy O.A.C. Review.

duce long slender vines which are not so apt to lodge as some of the other varieties. All these peas are ready for cutting as green fodder at about the same time. In the six experiments conducted in duplicate in each of six years, it was found that the mixture here referred to produced a crop, 96 per cent. of which was standing at the time it was ready to cut for green fodder.

#### PEAS AND OATS MAKE GOOD FEED

Not only is the mixture referred to abundant in growth, but it is of good feeding quality. The oats furnish a large amount of carbohydrates, or the heat and fat forming constituents, and the peas a large quantity of protein, or the flesh forming constituents; hence a combination of these two crops forms a food ration in which the different constituents are very well balanced. This mixture can be sown at two or three times in the spring, allowing from 10 days to two weeks between each two seedings, and the season in

which the crop is available is thereby considerably lengthened.

One great advantage in growing a crop of this kind is the fact that it can be used in so many different ways. If the weather conditions are favorable and the growth of pasture is abundant and the green fodder is not required, the crop can be cut and cured as hay and fed in the winter season. If it is not required for either the production of green fodder or of hay, it can be allowed to ripen and can then be threshed in the winter, and the grain of the oats and the peas can be ground together and used in the form of meal.

In some sections, Common Spring vetches have been used in the place of the peas. In the experiments at Guelph we have obtained rather better results, however, from oats and peas than we have from oats and vetches. Those desiring to use the vetches could sow either one bushel of the vetches or one-half bushel of peas and one-half bushel of vetches with the two bushels of oats per acre.

#### MILLET AS A GREEN FODDER CROP

Millet does not, as a rule, thrive well when sown in the early spring and its growth is not as rapid as either that of alfalfa or of the mixture of oats and peas. As a green fodder crop, I consider millet of minor importance. Of the various varieties grown at Guelph, the greatest yield per acre of green fodder has been obtained from the Japanese Panicole variety. The plants are tall and upright in their growth, produce an abundance of leaves, and furnish a large yield per acre.

As a supplementary green fodder crop, corn is sometimes used to good advantage in the latter part of the season. Owing to the late time of planting corn, however, and to its slow growth during the earlier parts of its existence it is usually not a very valuable crop to supplement the pasture lands. In Ontario, it is frequently in the months of June or July that the hot, dry weather occurs and that the pasture lands become deficient in growth. Occasionally however, a drought occurs in the latter part of the season, especially in August or the beginning of September, and it is well to have a good supply of fodder corn which could be used for feeding the stock, if required at that season of the year. As in the case of all of the other crops here referred to, if it is not required to supplement the pasture, it can be devoted to other purposes to excellent advantage.

I would not want to separate milk when it had reached a temperature under 90 degrees. The best results are obtained at 97, although 94 degrees and 95 degrees will give satisfactory results. —Geo. H. Barr, Chief, Dairy Division, Ottawa, Ont.