

Farm Journals Handicapped Through High Price of Paper.

Since the outbreak of war, publishers of farm journals in Canada have been seriously handicapped in many ways and particularly by the unwarranted high price of paper. Recently the Associated Farm Journals of Canada appealed to the Right Honorable Sir George Foster, K. C. M. G., M. P., Minister of Trade and Commerce, to alleviate the condition which is militating against the good work of these publications. Readers will be able to gather from the memorial herewith reproduced some idea of the burden borne by the agricultural journals through the unfair and unjustifiable advance in the price of paper.

"Referring to the representations made to the Honorable, the Minister of Finance, by Mr. C. W. Peterson, Chairman of our special committee, in behalf of the Associated Farm Journals of Canada with respect to unjustifiable increases in the cost of paper used by these journals and asking for an investigation, we beg to state, that we were informed at the time that our representations had been received too late owing to the fact that the newsprint investigation had already been proceeded with. We are now informed that Mr. R. A. Pringle, K. C., has been appointed by your Department to conduct an investigation into the newsprint situation and we, therefore, hasten to place our case before you in order that it may be taken up together with the same.

"We desire to point out that we do not ask Government assistance to enable us to make increased profits. We merely plead for a reasonable opportunity to exist. Farmers organizations and public spirited men have invested large sums of money in agricultural periodicals. Only one or two of them have ever paid dividends to their shareholders. Seventy-five per cent. of them have had to meet heavy annual deficits even under normal conditions. The Minister of Agriculture will assure you, that the agricultural press of Canada is the most important educational vehicle. The farmers of Canada, and those depending upon their prosperity have, therefore, been the chief beneficiaries of the enormous losses we as publishers have sustained in the past. If we are forced out of existence by impossible prices for our raw material, which must be the inevitable result for some of us, while our individual losses may be great, the loss to the farmers of Canada and the country generally will undoubtedly be still greater. Our books are open to inspection by your Commissioner at any time.

"To begin with, out of eleven farm papers published in Canada, ten were using book paper before the war. After the war began, when it was necessary to meet the extraordinary conditions thereby created and the large depletion of our revenues, a number of us commenced to use what is known as "half-tone newsprint", until at present, only two of our publications are continuing the use of book paper. Before the war, half-tone newsprint was sold at a price of \$2.35 per hundred f. o. b. Toronto as compared with the price for ordinary newsprint of \$2.12 f. o. b., Toronto. We have reason to believe that the manufacturers were then making a better profit on half-tone newsprint at \$2.35 than on the ordinary newsprint at \$2.12 per hundred f. o. b., Toronto.

As a result of the recent investigation, by the Department of Finance, into the pulp and paper situation as affecting ordinary newsprint, it was found that the manufacturers were not justified in enforcing an increase of more than one-half cent per pound, with a maximum price of \$2.50 per cwt. f. o. b. the mill, which means not more than \$2.75 per cwt. f. o. b. Toronto. It is shown that the manufacturer is entitled to an increase of 63 cents per cwt. or 30 per cent. The manufacturers are quoting prices on half-tone newsprint of \$4.25 to \$4.50 per cwt. f. o. b. Toronto, an increase ranging from \$1.90 to \$2.15 per cwt. or 80 per cent. to 92 per cent. We are confident that investigation will reveal that increased costs of production do not justify any higher percentage of increase in the price of half-tone newsprint than the Department of Finance found to be justified in the case of ordinary newsprint. On this basis we maintain that the price asked for half-tone newsprint should now be not more than \$3.05 per cwt. f. o. b. Toronto. The difference before the war in the prices of half-tone newsprint and ordinary newsprint was only 23 cents per cwt. The manufacturers are now demanding a difference ranging from \$1.50 to \$1.75 per cwt.

"The grades of book paper that agricultural publications were using before the war cost from \$4.15 to \$4.50 per cwt. f. o. b. Toronto, and over \$5 per cwt. f. o. b. western points. Since the first of this year the paper manufacturers have been asking a price on an average of \$5 per cwt. in advance of prices in existence in 1915.

"The eleven farm papers use about 2,500 tons of paper per year on the basis of half-tone news. An increase of \$2.00 per cwt. or \$40 per ton would therefore mean an additional cost of \$100,000 to be borne by these publications, or an average of nearly \$10,000 per publication.

"On the other hand, if they were using book paper as they did before the war, the tonnage would be about 3,800 tons. An increase of \$5.00 per cwt. or \$100 per ton would therefore mean an additional cost of \$380,000, or about \$34,500 per publication.

"You no doubt understand that illustrations play a very essential part in the educational work carried on by the farm papers. These illustrations are best reproduced on book paper. (Note the high-quality of book paper used in the publications issued by the Agricultural Department.) Ordinary newsprint is en-

tirely unsuitable for this purpose and half-tone news represents a compromise that has been forced upon the agricultural publications.

"Perhaps we should point out that ordinary newsprint is made from mechanical pulp. Half-tone newsprint contains, in addition to mechanical pulp, a small quantity of chemical pulp. Book paper contains a larger percentage of chemical pulp according to the grade.

"We may point out that we have apparently exhausted every legitimate means of effecting a compromise with the paper and pulp manufacturers and in doing so have lost valuable time. We have, therefore, no option but to appeal directly to the Government for relief. Our investigation of the subject has led us to the conviction, that present prices are exorbitant and are not based on cost of production, but have been arbitrarily fixed.

"Should the Government find it impossible to afford us relief by way of fixing prices of paper on a reasonable basis, we must respectfully urge that the present import duties on newsprint and book papers be removed in order that we may be given an opportunity to purchase our raw material in a cheaper market.

"Feeling confident that we can rely on your earnest consideration of our case, we are, yours very truly,"

"ASSOCIATED FARM JOURNALS OF CANADA."

The Mangel Crop and Its Feeding Value.

The labor scarcity, together with the more general use of silage for providing succulency to the ration has been largely responsible for the decrease in the acreage devoted to roots and especially mangels during the past few years. There is no getting away from the fact that thinning mangels is a tedious and slow job, and harvesting the crop, when pulling and twisting the tops off are resorted to, is a back-breaking task. There appears to be no way of facilitating the work of thinning, but it has been found that when mangels are topped with the hoe and harrowed out they keep fairly well in storage. This is more or less a wasteful practice when the long, deep-rooted variety is grown, but selection has evolved shallow-rooted, heavy-yielding varieties which grow practically above ground and are comparatively easy to harvest. It is true that the mangels, as well as other roots, are composed of a large percentage of water, but the dry matter which they contain is considered to be equal pound for pound to the dry matter of grain. They may therefore be termed watered concentrates. All kinds of roots are palatable, easily digested and very nutritious, and are a valuable feed for all classes of stock. They appear to have a toning effect on the animal system and aid in keeping it in good condition. If pulped and mixed with cut straw or cut hay, they make the dry fodder more palatable and thus increase its value as a feed. Turnips contain a little more dry matter than do mangels, but the latter are preferred for feeding dairy cows, owing to the fact that there is no danger of them imparting a disagreeable flavor to the milk or butter-fat. Of late years silage has been grown to take the place of mangels and turnips for feeding dairy cows and fattening animals. According to analysis the mangel contains about 90.6 per cent. water; 1 per cent. ash; 1.4 per cent. crude protein; .8 per cent. fibre; 6.1 per cent. carbohydrates, and .1 per cent. fat. The sugar mangel contains a little more dry matter than the amount previously mentioned. "Feeds and Feeding", by Henry, gives the results of trials at the New York Experiment Station in which it is found that one pound of dry matter in mangels is equal to one pound of dry matter in grain, and that mangels can successfully replace half the grain ordinarily fed in a ration of grain, mixed hay and silage. The conclusion arrived at was that with concentrates costing thirty dollars a ton, mangels are an economical feed for dairy cows if they can be produced and stored for four dollars per ton. It is no longer claimed that the feeding of mangels produces watery milk.

On account of mangels being of a soft nature, they are readily eaten by pigs and are considered a valuable addition to the grain ration for shoats, and are particularly beneficial to young pigs as they tend to produce growth rather than fat. At the Michigan Station, pigs receiving one-third of the normal grain ration were allowed to forage in a beet field, and one acre of sugar beets was found to produce 716 pounds of gain, and an acre of half sugar beets and half mangels produced 792 pounds of gain. Experiments have shown that seven and one-half pounds of mangels, combined with by-products of the dairy, are as valuable in pig feeding as one pound of ground barley. The high feeding value of mangels, particularly for dairy cows and pigs, is amply demonstrated in every-day feeding.

Preparation for this year's mangel crop should have been made last fall and in many cases it has been, by selecting a clover sod and plowing down a heavy coat of manure. As this crop must be sown quite early in the spring, it is a good plan to have the manure plowed under in the fall. The other hoe crops, which are planted later in the season, permit of more time for the preparation of the seed bed. It is a mistake to select a dirty field for roots. Weeds can be eradicated by means of the horse cultivator at less expenditure of time and energy than by the use of the hoe. Mangels are rather

heavy feeders and respond to liberal applications of manure or commercial fertilizers. If the manure was not applied in the fall, it can be worked into the land this spring. While it may give as good results it will necessitate extra work.

Even if the land was well prepared in the fall, it is generally advisable to plow again in the spring and work thoroughly in order to make a fine but compact seed bed. There is not much opportunity to destroy weeds and grass by spring cultivation, but nevertheless the better tilled the soil is in, the more readily will the seed germinate and subsequent cultivation will be easier. Many make a practice of sowing the mangel seed early in the spring, while others delay seeding until well on in May. The season has a lot to do with it. It is generally advisable to sow as soon as the ground is prepared, but it is a mistake to sacrifice a good seed bed to early sowing. Mangel seed is always slow to germinate, and the young plant makes slow growth at first even under the most favorable conditions; therefore, it is advisable to delay seeding until the soil warms up a little, so that the seed will germinate as quickly as possible and so get a start ahead of weeds and grass. If the latter once gains the supremacy it greatly increases the labor of caring for the crop during the season, and tends to decrease the yield of roots.

There are a number of comparatively new varieties which stand fairly high, both in yield and feeding value. The Globe type of mangel and the sugar beet mangel are now being most generally sown. The seed is produced in a ball which contains from one to four or five seeds, thus it is impossible to regulate the rate of seeding so as to secure a uniform stand of plants. Some growers use the "rolling pin" on the seed previous to planting, in order to break up the clusters. Several seeds encased in one shell accounts for the young plants appearing in bunches, which necessitates that considerable of the thinning be done with the fingers. From four to six pounds to the acre, depending on the method of sowing, is a fair rate of seeding, although some prefer to sow as high as eight or ten pounds. It depends a good deal on the vitality of the seed. It is a common practice to drill the land for mangels, having the rows about thirty inches apart. This may make hoeing easy, but there is more surface soil exposed to the drying effect of the sun and wind which further delays germination and lack of moisture will seriously affect the stand of the crop. Sowing on the flat is generally preferred on this account. The grain drill may be used for sowing mangel seed, but a little more seed will be required per acre than when the turnip drill is used. Have the soil as level as possible so as to avoid the danger of some seeds being covered too deeply and others not at all. With loamy soil in good tilled the seed may be covered with about an inch and a half of soil. All tubes on the seed drill except those used for sowing should be removed. The ones to leave on can be determined by the distance which it is desired to have the rows apart and on the width of the drill. If an eleven-hoe drill is used the second tube from each end and the centre one would be left on. By driving the wheel in its own track made the previous time across the field, the rows will be left twenty-eight inches apart. To make hoeing easier some make the practice of fastening the tubes so that they will just touch the ground, thus leaving the seed on the surface. A cultivator tooth is attached to each side of the tube used in sowing to cover the seed. After putting the seed in the ground, it is well to use the roller if the soil is at all loose. If heavy rains follow the seeding, use the light harrows to loosen the crust and make it easier for the young plants to push their way to the surface. The small hand seeder which is used for sowing garden seeds, is a very handy implement for sowing mangels. True, it will take a little longer to do the work with the hand machine than with the grain drill, but the depth of planting is more easily controlled and a more uniform stand is secured. The check-row corn planter may also be used to good advantage to sow mangels on the flat.

As soon as the rows can be followed the cultivator should be used to break the crust and kill weeds. As the mangel plants do not make very rapid growth at first, some growers give the first cultivation with the small, hand, wheel-hoe. This can be run quite close to the young plants without in any way molesting them or covering them with soil. The horse cultivator can then soon be used, and frequent cultivation is necessary. When the plants are two or three inches high they should be thinned to a foot or fifteen inches apart, leaving the strongest and most vigorous plants where possible. Frequent cultivation as long as it is possible to get the horse and cultivator between the rows without breaking the leaves will conserve moisture, destroy weeds and materially aid in growing a maximum crop. If the seed bed is well prepared it will mean less work later on in the season. The more work that can be done with wide implements and horses, the less there will be to do by hand. The crop from an acre of mangels will be found valuable in feeding growing pigs next winter and in keeping up the milk yield of the herd.

Remember the Provincial Plowing-Match.

The dates set for the Provincial Plowing Match and Tractor Demonstration for this fall are October 24, 25 and 26, and the match is to be held on Oak Park Farm, Brantford, Ontario. Coming at the end of the season farmers should be able to avail themselves of this opportunity to study tractors at work as well as to see what the best plowmen in the Province set up as first-class plowing.