

# FARMER'S ADVOCATE

AND HOME MAGAZINE

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## EDITORIAL.

### The Dominion Experimental Farms.

The thirteenth annual report of the five Dominion Experimental Farms has just reached us. It embraces nearly 450 pages, giving details and results of much useful work. Dr. Wm. Saunders, the Director, who from year to year visits nearly all quarters of Canada, points out that the position of the farmer in the community, and the intelligence and success with which he carries on his work, are steadily improving, while the farm home is becoming more attractive, and the family surrounded with greater comforts. The Director goes on to state that "the farmer now seldom sells coarse grains from his farm, but converts these, by feeding, into concentrated animal products, and thus retains the elements of fertility which these crops have taken from the land and restores them to the soil in the manure. He thus supplies for future crops much plant food in a readily available form." This is a sound principle on which to anchor, and we are glad to note in connection with the Experimental Farm system, as indicated by this report, an increasing attention being paid to live-stock husbandry and the growing of crops for that purpose. Too much attention cannot be paid to the question of the economical production of meat and milk of good quality by determining the best types of animals for the purpose, the use of the most suitable foods and methods of feeding. Look, for instance, at the effort of the Agriculturist, Mr. Grisdale, to ascertain the exact returns and cost of keeping the dairy herd at the Central Experimental Farm (where the modest net profit of \$10 per cow is shown), or the extended details which Mr. Robertson, Superintendent of the branch farm at Nappan, gives of a similar trial with the herd of dairy cows under his charge, and for further particulars of which we would refer the readers to our dairy department in this issue. It should make the average dairyman stop and think about what his own cows are doing or are not doing to see that some of these cows at Nappan yielded a net profit of \$27.83 in the year, while others fall as low as \$2.68. The latter cow, too, gave nearly 5,000 pounds of milk, which would probably put her away above the average Ontario factory cow, judged by some Bureau of Industry returns once published, so that there is little doubt that many cows are making their owners poorer, but who seem to cling to them with deathlike tenacity. Why not weed out these unprofitable bovine servants?

The experiments in early, late and medium plowing, reported by the Director, have been conducted long enough to show the advantage of plowing all the crops, if possible, on the farm within ten days after the ground—prepared by fall plowing—is ready for seeding. It might have been further pointed out that want of tile drainage is responsible for a good deal of late seeding and lessened yield. Remarkable results are reported from plowing down green clover. The average increase in grain after the plowing under of green clover was, for the first year when oats were used, 11 bushels 1 pound per acre, and in 1899, when these same plots were sown with barley, the average increase was 8 bushels 1 pound per acre. An increase of 28 per cent. in the potato crop, where clover had been plowed down, was also shown.

The fertilizer plot experiments, which have been going on for ten or eleven years, disclosed incidentally that soil to which no barnyard manure was applied became greatly depleted of humus and power to hold moisture, and its conditions favorable to plant growth were very much lessened. With wheat, barley, oats, corn, mangels and turnips the best results were obtained from barnyard manure, as compared with various artificials, and, furthermore, fresh manure gave equally good, in fact, better—results, ton for ton—the latter being

the case in most instances—than when well rotted.

These farms have done, perhaps, their very best work in encouraging tree-planting. During the comparatively brief period of twelve years, since the Experimental Farms were founded, these useful institutions have laid the foundation for a great advancement in tree-growing in Canada in the near future. There are now growing on the five Experimental Farms a grand total of about 245,000 trees. There has also been sent out from these farms during the period mentioned to individual lovers of trees, in small lots of about 100 each, 1,261,000 (more than one and one-quarter millions) young forest trees and cuttings and 14,000 pounds (7 tons) of tree seeds, every pound of which, with reasonable care, may be expected to produce from 500 to 800 young seedlings. The results of this work are now everywhere apparent. On homesteads in almost every part of Manitoba and the Territories there are small plantations of forest trees which furnish more or less shelter for the growing of garden vegetables, small fruits and flowers, also for buildings and stock, and at the same time make the dwellings of the settlers more attractive and homelike.

Another exceedingly interesting and valuable feature of this volume is the illustrated report of the Entomologist and Botanist, Dr. James Fletcher, dealing in a very practical way with the myriads of insect and weed foes that confront the farmer in all portions of the country. The section occupied by the Horticulturist, Mr. W. T. Macoun, dealing so fully with the popular and increasingly important fruit-growing interests of the Dominion, will prove valuable for reference on many points. In the latter we notice, in passing, a good idea, viz., the giving of a short list of "Best Vegetables for Farmers," as indicated by the trials made. The reports of the Chemist, Poultry Manager, and the superintendents of the branch farms are also very complete.

Some of the lists of varieties of grains, etc., kept under test would seem to be bewilderingly long. There appears to be almost a mania for potato testing, and some of it is not yet very conclusive, as the report itself states. At the Central Farm, for instance, there were under test no less than 143 varieties, at the Maritime Farm 119, Manitoba Farm 110, Northwest Territories 117, and British Columbia 125. American Wonder, which heads the list as a yielder at the Central and Indian Head Farms, does not appear—under that name, at all events—in the Brandon Farm list, is about one-third of the way down at Nappan, and near the bottom at Agassiz. Surely a good many of these sorts might be eliminated, and much labor saved entirely or else turned in other directions.

Dr. Saunders devotes some space to journeys which he undertook during the year. Of the Doukhobors whom he visited in the course of a 150 mile drive he evidently received a very favorable impression, finding them industrious and well satisfied with their new home in North-west Canada. Contented amid more or less hardship, he found them, moreover, truthful, honest and hard-working, cleanly in their habits—using neither liquor nor tobacco—and, being vegetarians, strong and hardy, the Doctor believes they will make a valuable class of settlers in the districts where they are located, forming prosperous communities that will aid in the development of the country.

The crops in Manitoba and the Northwest, which, though sown under peculiarly favorable conditions, suffered very considerably through the month of May from lack of rain, have greatly improved in the last two or three weeks, refreshing showers having fallen in many districts, and the prospects are now much brighter for favorable returns than they were some time ago. Western Ontario, which felt severely the want of rain through the month of May, has been favored with copious rains, and the crops have made vigorous growth in consequence.

### Fruit Prospects.

The outlook for both tree and bush fruits is especially bright, according to letters published elsewhere in this issue from correspondents in many of the chief fruit-growing centers. Word comes from everywhere that apples, pears and cherries, as well as strawberries and all kinds of small fruits, promise a full yield, while plums and peaches, so far as reports received indicate, are well-nigh a failure. During recent years, however, the chief cause of anxiety among fruit-growers has been not so much how to get a crop as to secure a market and favorable shipping facilities. It is true that success in these lines has been secured up to a certain point, but in seasons of a heavy yield, as is promised this year, there is certain to be more or less glutting of markets at certain seasons, which tells most severely on second and lower grade stock. The letters received and referred to deal helpfully with methods of improving the quality of the best fruit, and reducing the quantity of that of lower grade. Thinning overladen trees and limbs comes in for a goodly share of commendation and comment, the results of which and time to do it are well summed up in Bulletin 66 of Massachusetts Agricultural College, as follows:

"The results of thinning out a liberal amount of fruit from an overloaded tree or plant are: (1) that the foliage becomes more vigorous and more resistant to insect and fungous pests; (2) the remaining fruit grows larger and more perfect in size, color and quality; (3) the larvae of the codling moth, the insect producing wormy fruit in the apple, pear and quince, and the larvae of the plum curculio, that produces the wormy plums and cherries, are destroyed in the immature fruit when it dries up or decays on the ground, and much less labor is required to sort and pack the remaining fruit when it is harvested. The price obtained for fruit from carefully thinned trees or plants is certain to be much higher than if all the fruit were allowed to remain unthinned, while the cost of thinning is not much greater than would be the extra cost of the final picking and sorting of so much inferior fruit.

"Time for Thinning.—The best time for thinning fruits is as soon as it can be determined what specimens are injured by insects or by any other cause. This time for the apple, pear, peach and plum is early in July. The grape should be thinned as soon as the size of the bunches can be determined, which may be the last of June or the first of July. The amount of fruit to be removed will depend largely upon how much has set. In some cases three-fourths should be removed. With apples and pears the amount of thinning to be done must depend upon the size and vigor of the trees, but all wormy and deformed fruit should be removed even to the extent of taking the entire crop, for in the majority of cases such fruit only serves to increase the number of insects the next year, and will not pay the cost of harvesting if allowed to mature. In thinning the grape, all small bunches should be removed if the fruit is intended for market, as only large, full bunches will sell for good prices, and only a limited amount, depending upon the strength of vine, should be allowed to remain on each cane. In vineyards at full growth from 10 to 20 lbs. of fruit will be all that each vine can mature and retain its vigor."

In many sections last year orchards were almost entirely defoliated by the tent caterpillar, which not only ruined the fruit crop then, but did much permanent injury to the trees. This season a like scourge is threatened in various districts; in fact, in almost all parts heard from this pest is more than ordinarily prevalent. The remedies recommended by the various contributors are sure and simple, and should not be neglected a day longer than the work can possibly be done. While the spray pump is considered by too many an innovation, its value to fruit-growers cannot easily be overestimated, and it behooves every man who grows fruit to appropriate this easily accessible aid to a more profitable conduct of that branch of his farming operations.

Mr. Mark Sprague, Ameliasburg, Ont., who has for twelve years been employed as Instructor of Creameries in Ontario, recently left for the Old Country, in the interest of butter and cheese exporting firms.