

For ordinary work, the light, swivel-bladed pruning saws are excellent. Long-handled pruners are excellent for quick work, but do not, as a rule, make close, smooth cuts. A good hand clipper is indispensable.

In heading back a young tree, it is frequently desirable to cut to a particular bud, for the purpose of giving the young shoot the proper direction of growth. If this pruning is done early in the season, it is well not to cut close to the bud. Leave a stub, and remove the same at a subsequent pruning. If growth is about to start when the cut is made, no harm will be done by cutting close, but if drying-out takes place from the cut end of the branch before growth begins, the bud is likely to be injured, if not killed.

Pruning to increase vigor of growth may be necessary in the case of young trees, but in most cases the desired increase in size can be best secured by cultivation or fertilizing, or both. Winter pruning of young trees should not be carried farther than is necessary in order to secure proper form. It must be borne in mind that



The proper angle for making the cut. Leaves a smaller wound, which heals more quickly.

Improper cut. Leaves a larger wound, which takes a longer time to heal.

strong growth is opposed to fruit-bearing, and severe winter pruning consequently tends to delay the fruiting period. As a rule, early bearing means short life, and, while it is not advisable to allow trees to bear too early, it is certainly not advisable, in the majority of cases, to delay fruit-bearing longer than is necessary.

Spring pruning, as ordinarily practiced, undoubtedly has the effect of increasing general physical vigor. It may also have the effect of causing fruit to set. A well-cared-for tree may produce too many fruit buds, in which case a large part of the energy of the tree may be expended in the seemingly simple act of expanding the buds into blossoms. A tree may actually exhaust itself in this way to such an extent that setting of fruit is prevented. It is not generally recognized that large quantities of energy, in the form of heat, are given off in the process of unfolding leaves and blossoms, but observations have proven that such is the case. A thermometer placed in the center of a tree in full bloom will in calm weather register appreciably higher than one outside of the tree. The quantity of heat produced may in some cases be sufficient to prevent frost injury to blossoms, or to confine the injury to the exterior portions of the tree. Certain Alpine plants are known to grow and bloom under the snow. The heat of growth is sufficient to melt a chamber sufficient in size to permit the flowers reaching full perfection, in spite of their icy environment. All plants which live through the winter store up food material within their tissues, upon which they draw for early growth. The utilization of this food material (starch and sugar) is chemically similar to combustion, and is always accompanied by the evolution of heat. In certain cases, therefore, spring pruning may mean simply the conservation of energy, and the tree may have enough food material left after blooming to enable it to set fruit. Certain varieties of plums are frequently induced in this way to set fruit, and it is probable that much of the increase in productivity commonly attributed to spring pruning is brought about in this way.

Showed Up the Value of Orchards.

According to the reports of some enterprising parties who are making a business of renting orchards, the articles detailing the results of "The Farmer's Advocate" orchard demonstration work have increased the value of Canadian orchards several hundred thousand dollars. Among others who have interested themselves in renting and improving orchards as a commercial proposition, are a quartette of wide-awake men in Essex County, namely: A. McKenney, J. O. Duke, T. S. Biggar, C. N. Kramer. These men have secured options on about 75 acres of orchards, over half of which have already been closed. Their plan is to rent the orchards for a period of years, paying at the rate of \$10 to \$15 per acre per annum, some of the orchards being infested slightly with San Jose scale. Mr. McKenney admits our orchard articles compelled them to pay about \$5 more per acre than they would have otherwise been obliged to, as every man they approached seemed to know about "The Farmer's Advocate"

work, and had ideas of rental value approaching the rate we paid, namely, \$33.33 per acre. However, the trouble is that some of the men who value their orchards at an increased rate when somebody approaches them with a proposition to rent and improve them, would not, if left to themselves, make any more out of their orchards than they have been doing. However, Mr. McKenney admits that our articles were probably the means of interesting him and his partners in the proposition they are undertaking, so that, on the whole, they are probably under obligations to the paper, after all.

Exporting Tomatoes Unprofitable.

Interest in the question of the possibility of a profitable trade being done in supplying Canadian tomatoes to the markets of Great Britain has never quite died out, and lately shows signs of revival.

It will be remembered that in 1897 a considerable quantity of tender fruits, including tomatoes, was shipped by the Dairy and Cold-storage Branch of the Dominion Department of Agriculture to London, Liverpool and Glasgow, with a view of testing the markets and determining the possibilities of the trade. The conclusions reached were to the effect that tomatoes could be landed, even with the facilities then available, in fairly good condition. Since that time, considerable progress has been made in the knowledge pertaining to refrigeration, handling and shipment of all kinds of tender fruit, and there would seem to be no difficulty at present in placing Canadian tomatoes of the right variety on the English market in good, sound, marketable condition.

But are the prices high enough at the season of the year when the Canadian supply is available to make shipments profitable? A satisfactory answer cannot be given to that question, as, at the present time, there does not appear to be a very promising opening for Canadian tomatoes in Great Britain.

While it is true that English and Scotch tomatoes are practically all grown under glass, and sell at high prices the greater part of the season, it is to be remembered that abundant supplies come in from other countries. The Channel Islands have a large export trade in tomatoes, which continues throughout the year: from November to June, greenhouse fruit; from July to October, grown outside. The season for Canary Island tomatoes is from November to May. But, besides these two sources of supply, there are shipments received from Lisbon, Belgium, France, Holland, Denmark and Spain, nearly all of which come in during September and October, and, in consequence, the price is lowest at that season.

Canadian tomatoes, if exported, would land just when competition is keenest and prices at the lowest point. They would have to compete with those from Lisbon, Belgium and France, selling at from 2 cents to 3½ cents per pound. At the higher figure, a 7-pound case of Ontario tomatoes would make 25 cents. It is assumed that, to have them land in good condition, they would have to be packed in single-layer cases holding from six to eight pounds each. On these, the expenses would be: Freight, St. Catharines to Montreal, 4c. per case; ocean freight, 9 or 10 cents; broker's charges for landing, delivering, etc., 5 cents; commission, 1 cent—a total, say, of 19 cents per case. This leaves net proceeds of 6 cents, f.o.b., packing-house—not sufficient to meet cost of package and packing.

It would seem, concludes the circular issued by J. A. Ruddick, Dairy and Cold-storage Commissioner, from which the above is condensed, that, under present conditions, the export of tomatoes to Great Britain would yield no profit to the shipper.

THE FARM BULLETIN.

"Stuck" by Reciprocity.

Editor "The Farmer's Advocate":

Being a farmer myself, I am very much surprised to see "The Farmer's Advocate" favoring reciprocity with the United States. Now, I would like to know how this is going to better Canadian farmers? Taking the products of the farm, let us see how it is going to affect them. You must know that pork prices have been higher in Canada than in the States for a number of years past, going as low as \$3.50 per 100 pounds on the hoof in Chicago during the last seven years. Eggs are very much lower to-day in the States than here; one Montreal firm bought several carloads in Chicago, at 8 cents per dozen, two weeks ago. There is enough butter and cheese in cold storage in the States to last another year, without making another pound. Therefore, with reciprocity, the Canadian farmer will have to take less for his pork, less for his dairy products, less for his eggs. Now, what about beef? It simply means this, the Canadian farmer will simply be in the hands of the American beef trusts, and will have to take what they want to give them.

The wheat-growers of the Northwest may get a little more for their wheat for a short time, but even that is doubtful. The Canadian wheat will be milled in the States, instead of Canada, and exported from the States, and the Canadian farmer will lose the wheat by-products.

The vegetable and fruit growers will certainly be hurt. Not only the United States, but all the nations in the favored nations' treaty, will be able to unload their surplus products in Canada duty free, while we will have to pay duty on our produce going into all countries but the States? In the face of all this, you say that reciprocity will benefit the Canadian farmer. All I have to say is this, that, if reciprocity goes through, Canadian farmers will get stuck good and plenty—and serve them right, too. The Canadian farmer is better off to-day than he has ever been, and this has not been brought about by free trade, but by protection. E. C. PARKER.

Sherbrooke Co., Que.

Standing Field Crop, Sheaf and Grain Competitions.

The Ontario Government has this year placed in the estimates a grant of \$7,500 for Standing Field-crop Competitions, to be conducted under the auspices of the Boards of the Agricultural Societies.

First.—Competition in each society limited to one crop. Field to be not less than 5 or more than 20 acres, but for beans or potatoes, minimum plot to be one acre. Any staple crop produced for seed in Ontario may be chosen, such as spring or fall wheat, white oats, barley, rye, corn, peas, alsike clover, alfalfa, red clover, potatoes or beans.

Second.—Only members of an Agricultural Society may compete, and that in only one Society, and fields must not be more than fifteen miles from headquarters.

Third.—Societies entering competition must notify Superintendent not later than May 1st. Not less than ten entries in any Society accepted, and competition limited to first 100 societies applying.

Fourth.—Secretaries must forward all entries on or before May 25th.

Fifth.—An entry fee of not more than \$1.00 may be charged by Directors of Societies. Each Society must offer at least five prizes, of \$15, \$12, \$10, \$8 and \$5. Of this amount, the Society must furnish \$20, the remaining \$30 to be a grant from the Government.

For the first, second and third prizewinners in field competitions, there is a chance of winning in a Sheaf Exhibit, and also in exhibit of two-bushel sacks of grain, at the Canadian National Exhibition, Toronto. For these exhibits, the Province has been divided into three districts—North, East, and West—and to each the same amount of prize-money is offered. First, second and third prizes are to be given in both exhibits, for fall wheat, spring wheat, white oats and barley.

Total prizes offered in sheaf exhibit, \$228; in exhibit of cleaned grain, \$288.

At Ottawa and Guelph Winter Fairs, first, second and third prizewinners in field competition have opportunity, also, to compete in two-bushel seed-grain competition.

All entries for sheaf and grain exhibits to be made to Supt. J. Lockie Wilson, Parliament Buildings, Toronto, by August 1st, 1911.

To Better the Rural School.

The teacher of every rural school, and every rural-school board, in Ontario, should at once secure, if they have not done so, from Prof. S. B. McCready, of the Ontario Agricultural College, Guelph, a copy of the recently-issued bulletin for schools and teachers. It presents a plan for rural-school improvement, carefully worked out by the Schools Division of the Experimental Union. In 1909 there were 117 schools co-operating in this work, and last year, 237. This year should see a much larger increase. Arrangements are made to send out seed packets for school gardens, seed grain for small experimental plots, shrubs, vines and tulip bulbs for school-ground improvement; also tree and agricultural seeds and forest-tree seedlings where they can be used. Full directions as to how these may be secured are given with the bulletin, and also information regarding making useful additions to public school libraries. Many of these materials are free, and include a beautiful engraving, suitable for framing, of the Ontario Agricultural College. Readers of "The Farmer's Advocate" interested should lose no time in writing Prof. McCready on this subject, for spring is coming, and with it a fresh chance to make the section school what it ought to be—a thing of beauty, and of more real use to rural life.