

thorough, and have done much in educating the farmer in the production of milk of better quality. Their work has been in this direction largely this past year. Instruction work in the factories has not been neglected, but there has been less required than heretofore. R. G. MURPHY.

Secretary Eastern Ontario Dairymen's Ass'n.

[*Note.—A list of these meetings will be found by reference to the list of Farmers' Institute meetings published in the back of this paper.—Ed.]

Why a Daily Milk Record Pays.

A Wisconsin creamery patron who was dairying on a small scale, brought out in an address the following excellent points, based on his experience with the milk scales and the Babcock test: "It is not only the milk and butter that determines a cow's value. If a cow is a profitable animal her heifer calves are apt to be good milkers—like produces like—and a dairyman must look into the future, and not live just for to-day. It pays to keep cows that will be matrons of good-milking heifers. The value of a good cow lies not in her own excellence alone, but in that of her progeny as well.

"The only sure way of culling out your poor cows is by weighing the milk from each cow and having it tested. Some will say it is too much work, but I think it is too much work to milk a lot of cows that do not pay for their board; besides, I cannot afford it. I have weighed the milk from each one of my cows for nearly a year, and I do not think I shall ever keep a cow again without knowing just what she brings me. Of course, you would not have to weigh every milking in order to know pretty near what your cows are doing. If you weigh the milk one day each week you can figure their yield very closely. But if you weigh your milk just once in a while you lose half the value of your scale and milk record. I will tell you why: Everything, as far as I can learn, is governed by cause and effect; if your cows are not doing so well as you would like to have them, there is some cause for it, so do not call it poor luck and let it go at that, but try to find out why they are not doing well. When you keep a record of your milk, just as soon as there is an unnatural shrinkage you will notice it at once, and you will ask, why did the amount of milk drop off so badly just now? And you will try to find the cause, and when you have found that it is generally easy to remove it, or to apply a remedy. While you have been studying this matter up you have learned a lesson you are apt to remember."

GARDEN AND ORCHARD.

Destroying Garden Rubbish and Remnants

By Prof. Franklin Sherman, Jr.

It is well known that many of our most serious insect pests of the field and garden pass the winter months beneath such shelter as they can find in or near the crops upon which they have been feeding. Thus many species of cutworms, for example, pass the winter in a half-grown condition beneath boards, stones, trash, or just beneath the surface of the soil. The chinch bug often hibernates under boards, trash, etc., around the edges of grain or grass fields. The tarnished plant bug, which causes a distorted twisting of the young leaves of currant, gooseberry and raspberry, hibernates under fallen leaves. The turnip louse, which is the same species as the cabbage louse in gardens, seems to pass the winter on such living roots, shoots or other remnants of its food plant as remain in the field.

These considerations show at once that much may be done at this season to avoid damage next spring and summer. If every fence row be thoroughly cleaned out, either by the plow or by the fire; if every piece of trash around the gardens and fields be piled and burned, if all the dead leaves in the gardens be consigned to flames, and, lastly, but perhaps most important of all, if all vines, stalks, stubs, leaves and other remnants of crops be absolutely destroyed by fire or in the compost heap, we can easily believe that there would be fewer of these insect pests next season. Even the much-needed coat of whitewash on the picket fence surrounding the garden will do some good against the insects, by sealing up small cracks in which insects might otherwise secrete themselves.

In the prompt destruction of all useless remnants immediately after the harvesting of the crop, we have a valuable remedy, which is all too little appreciated by most persons. A stalk-weevil which bores in the stems of the potato reaches maturity and escapes from the vines only after the crop is harvested and the vines are lying unheeded on the ground. On the neglected stubs of cabbage and cauliflower plants many a brood of lice is born in the fall and "Indian Summer" season. Many a cutworm and green cabbage worm, and many a pupa (chrysalis) of the diamond-back moth passes the winter or reaches maturity on these remnants, hence their immediate destruction is advisable.

If one lone gardener or farmer in a locality follows these suggestions while all his neighbors neglect them, his results, while none the less sure, will not be as noticeable and satisfactory as would be the case if all

the farmers or gardeners in the community should act together. Unity of action is always more effective than mere spasmodic individual effort.

Ontario Agricultural College.

Propagating Plants by Cuttings.

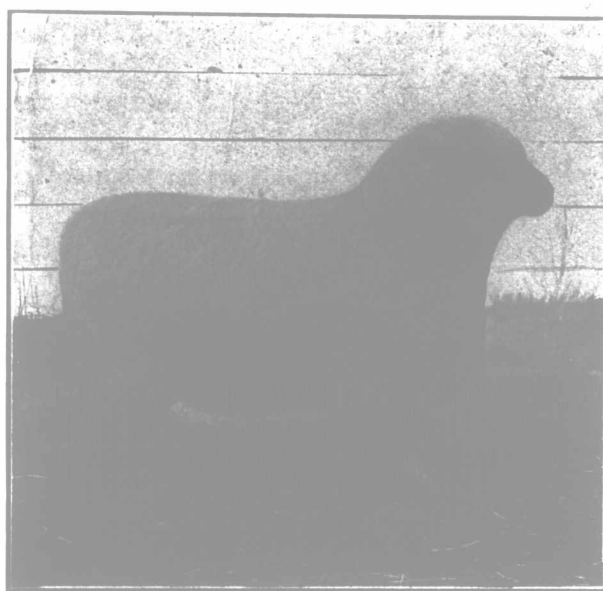
Currants, gooseberries, grapes, many ornamental shrubs, and some other kinds of hard-wooded plants may be propagated by means of cuttings. In most sections of the Province it is best to take the cuttings late in the fall, and store them over winter with the butts uppermost in moss, sand or sawdust.

The formation of roots is always preceded by the formation of callus. Cuttings taken in spring, therefore, will be tardy in striking root, as they require additional time to perform the process of callusing. Fall-made cuttings callus during the winter, and when planted in spring they root readily.

When making the cutting, cut off the lower end close to the bud and leave the exposed surface clean and smooth. The upper cut may be a half inch above the bud.

The length of the cutting is governed by the distance apart of the buds, as usually two buds are required. Six to ten inches is a convenient length. With plants that are "short-jointed," more than two buds may be used, and, as a rule, they make better cuttings. In the spring, however, when planting some kinds of shrub cuttings, and when the tree form of currant and gooseberry bush is desired, it is necessary to remove all buds but the upper one to prevent the formation of underground shoots.

A. B. CUTTING.



Rosefort Eclipse, Imp. (03581R) 219369
Shropshire shearing ram. Bred by Thos. A. Buttar, Cooper Angus, Scotland. Winner of first prize and sweepstakes at Western Fair, London, 1905. Owned by W. H. Beattie, Wilton Grove, Ontario.

Dominion Conference of Fruit-growers for February.

The Honorable Sydney Fisher, Minister of Agriculture, proposes to call the fruit-growers of the Dominion in conference some time next February. This conference is in response to a request from the various Provincial Fruit-growers' Associations, a deputation from which waited on Mr. Fisher some time ago. The proposition is to issue a call to the various Provinces to send delegates in the following proportion: Prince Edward Island, 2; Nova Scotia, 4; New Brunswick, 2; Quebec, 4; Ontario, 9; Manitoba, 1; Saskatchewan, 1; Alberta, 1; British Columbia, 4. It is expected that in addition to these delegates chosen by the fruit-growers, the Provincial Governments will each have a representative.

The following subjects have been proposed for discussion at this conference:

1. Statistics and Fruit-crop Reports.
2. Transportation.
3. Packages (discussion by manufacturers present).
4. Markets and Marketing.
5. Adulteration of Fruit Products.
6. Nurseries.
7. The Fruit Marks Act.
8. The Dominion Experiment Farms and Provincial Experimental Stations.
9. Horticultural Education.
10. Orchard Practices.
11. Fair Trials and Fruit Exhibitions Generally.

The various Provincial Associations will consider these subjects at their annual meetings this fall, so that the delegates will come to the conference fairly well instructed in the wishes of their constituents.

Good Prices for Apples.

Good winter fruit is doing well, says the Trade Bulletin, Montreal, both on export and local account, sales on spot being reported of 200 barrels of choice No. 1, chiefly Spies, at \$4.00, and two cars of No. 1 mixed varieties at \$3.65. A round lot of seconds sold at \$2.75. Advices from the West state that a Winnipeg buyer is picking up all the odd lots he can find. One lot of 750 barrels of winter varieties was sold at \$3.00, f.o.b., at a western point for shipment to Winnipeg. There is said to be between 350,000 and 400,000 barrels stored in Central Canada, although some dealers think that a low estimate. The English market is doing well, recent sales reported from Liverpool showing shippers very good nets, for sound fruit.

Plant and Animal Breeders.

The American Breeders' Association will hold its second annual meeting at Lincoln, Nebraska. Arrangements have been made for a three days' session, on Wednesday, Jan. 17th; Thursday, Jan. 18th, and Friday, Jan. 19th. The association will be the guest of Nebraska's numerous agricultural societies, which meet together at Lincoln during "Agricultural Week." Several of the sessions will be held jointly, with one or more of the State societies interested in animal and plant breeding. Many leaders in animal and plant breeding are being secured for the programme. Lincoln, Nebraska, is accessible by rail from points north, south, east and west, and reduced railroad rates are being provided for. Information regarding railroad rates and local accommodations can be had by applying to the chairman of the local committee, Dr. A. T. Peters, Lincoln, Nebraska, or the Secretary of the American Breeders' Association, W. M. Hays, Washington, D. C.

Danger of Burying Tree Roots Deeply.

I have some soft-maple trees, very healthy, about thirty feet high, with about ten-inch trunks, growing in rich alluvial soil on my lawn. Would it be safe to raise the earth around these trees eighteen inches or two feet? One of them has had about two feet of soil around it since last June, without any apparent bad results, but I don't know that that is sufficient time to test it.

FRANK BRITTON.

Ans.—The danger in burying tree roots too deeply is in shutting off the supply of air from the roots. With large, well-established trees there is less liability to injury from this than with the younger trees, as the roots have greater spread, and will in time grow nearer the surface. If the soil added is of loose, friable nature there will be much less danger of injury than if it were impervious, heavy clay. I think trees of the kind and age you mention would show little or no ill effects from covering to the depth of only a foot and a half or two feet. H. L. HUTT.

O. A. C., Guelph.

"Grounders" Should Not be Marked "No. 2."

The Fruit Division, Ottawa, has received reports of heavy losses by wind storms during the last three weeks. Evidence is not wanting that these windfalls are being shipped to market, classed for the most part, it is true, as No. 2. This is a very short-sighted policy. An apple that has once touched the ground should be clearly labelled "grounder," so as to indicate something of its history, no matter how sound or clean it may appear. Wind storms are becoming so serious a matter in apple-growing that shippers' and fruit-growers' associations will be obliged to arouse public opinion as to how these apples should be graded. It is not fair to call them No. 2 apples, nor are they in many cases culls, but very frequently are good, servicable apples for many purposes; but they are so unsafe to handle because of the uncertainty of their condition that no grade mark would be a proper one that does not clearly indicate that they are "grounders."

Top-graft Gideons with More Desirable Sorts.

The Fruit Division, Ottawa, has received a letter from a dealer in Manitoba reciting the fact that he had received a consignment of apples that looked perfectly good on the outside, but when the apples were cut the core was almost invariably rotten. Almost incidentally he gave the name of the apples, the Gideon. The shipper packed these in good faith, and sent them forward as No. 1's. This illustrates the necessity of a slight knowledge of varieties on the part of shippers and consumers of apples. The Gideon has been condemned years ago because it is liable to rot at the core, a fact that should bar it as a No. 1 shipping apple. The tree, however, is exceedingly hardy, which encouraged the planting of it to a very large extent in Northern Ontario some years ago. The owners of Gideon trees should immediately top-graft to some more desirable variety. It is an excellent stock, and if the graft is properly done only two or three years' crop is lost.