

respondents were taking a rather gloomy view of the situation, others were most hopeful that, with the advent of warm weather, there would be a quick advance in the growth of spring crops.

Fruit Trees.—All classes of orchard trees have come through the winter in good condition, so far as injury from the weather or mice is concerned, although bark-splitting is reported in some northern localities. Unfortunately, there are a number of references to the presence of San Jose scale and the oyster-shell bark-louse, and it is very evident that a steady warfare must be waged against these and other insect pests, if our fruit trees are to thrive. Several correspondents declare that too many of our orchards are still badly neglected. While leafing and blossoming were about a week or two backward, reports were to the effect that, barring late frosts and heavy rains at the time of bloom, a good yield of fruit may be looked for.

Fodder Supplies.—But for the comparative mildness of the winter, there would have been much scarcity of fodder before live stock got upon the late grass. As it is, many farmers have had to feed most economically, and some barns are rather bare of supplies. The scarcity of straw and roots told against generous feeding, and in many cases the situation was saved only by the good crop of corn and the use of the silo. Hay is in good demand, but in most cases there is only sufficient for local demand, as a good deal was baled and shipped during the winter. Oats and wheat are higher in value than for years, but the slow sales this spring, at very tempting prices, prove that farmers have only about enough for home consumption. In Eastern Ontario, oats for seeding are at a premium; in fact, all kinds of provender are scarcer in that section than in the more western counties.

Live Stock.—The general condition of live stock may be briefly described as thin, but thrifty. No disease of a serious or epidemic nature has appeared, the mild form of distemper reported in several parts of the Province being of a local nature. Horses are said to be in good heart, notwithstanding close feeding. The same may be said of both beef and dairy cattle. The chief ailments reported amongst this class of stock were cases of abortion and other parturient troubles with a number of cows, and scours in calves. Most of the stall-fed and other fat cattle have been disposed of, but the number of stockers going upon grass is somewhat less than in former years. Sheep have come through the winter nicely, and lambing has been upon a generous scale, but fear of the dog is holding back the sheep industry in Ontario. Loss of spring litters has been rather too common with sows, and several correspondents report cases of crippling of hogs; but otherwise, there are few complaints made regarding this class of stock, except that, while high prices are being paid for pork, the equally high cost of feed leaves very little profit for the farmer. A number of correspondents hold that, on this account, there will not be a surplus of hogs offering later in the season.

Killing Canada Thistle.

At least one experiment station in the United States has suggested a practical method of fighting Canada thistle. An Iowa press bulletin says, truly, that a good method to eradicate the weed is to plow shallow and cultivate frequently during the summer. It is pointed out that the roots of the Canada thistle extend deeply down into the soil, hence for this reason deep cultivation will be of no avail. After plowing, the soil should be dragged, and the roots exposed to the sun and removed when possible. It may be necessary to run over the field with a hoe to cut off stray plants that appear. This method was tried on a patch several years ago, and no Canada thistles have since made their appearance in this place. Various crops, such as clover and sorghum, are said to be effective in subduing the thistles.

Of the chemicals which have been used to exterminate Canada thistles, none are more effective than sodium arsenite. It is applied at the rate of one and one-half to two pounds to 52 gallons of water.

Carbolic acid, at the rate of one part to one part water, destroys the root where it comes in contact with the mixture, and for a little distance beyond. This is not an effective method, as the roots sprout out from below. In response to circulars of inquiry sent out by the station, the majority of correspondents recommended shallow plowing, disking and harrowing, and continuing cultivation and hoeing as long as the thistles make their appearance. Some report successful treatment with salt, when scattered thickly about the thistles, especially if cattle or sheep are given access to it. Some reported success with carbolic acid where it is applied directly to the stem.

THE DAIRY.

Australasian Butter Boxes.

The steady advance in prices for wooden boxes for butter packages, according to D. H. Ross, Trade Commissioner at Melbourne, Australia, has led to attempts being made to produce satisfactory boxes of other materials. Capitalists are interested in a company to exploit boxes made from waste paper, of indurated fiber. It is said that the sides and bottom of the indurated fiber box are moulded in one piece, and the lid fixed with nails. The cost is much less than the ordinary wood box. Tests were made some time ago at the Government cool stores, Melbourne, by opening up some butter packed for several months in indurated fiber boxes, with the result that the quality was unimpaired and free from the slightest trace of taint.

It is also claimed that a straw-pulp butter box has been made that is odorless and impervious to moisture, and tests indicate satisfactory results. The few sample boxes made show a strong paper material of great strength and easily nailed. The color is dark gray, and hence not so attractive as the ordinary butter box used in Australia, made from New Zealand white pine—a wood singularly well adapted for the purpose.

Standard of Pasteurization.

Some persons will naturally say that if all the disease in milk comes from germs, why not pasteurize it, and simply kill them by boiling, and thus at one stroke get rid of all the injurious consequences. I think we all know that boiled milk is not so palatable, and it is not so very healthful. As regards pasteurization, the first

the lives of those near and dear by using it. I believe that the experience of the Toronto General Hospital is proof that this can be done without any great expense, or without forcing the milk producers to incur large expenditures of money, but simply by making them carry into effect a few simple rules in regard to cleanliness. In view of this fact, is it too much to ask that the milk supply of our Province be placed on the same footing as other foods, in regard to cleanliness?—[W. K. McNaught, M. P. P.]

Thousand-dollar Dairymen.

Editor "The Farmer's Advocate":

A party whom I am interested in owns a fine 100 acres of good land in Eastern Ontario, 90 acres under cultivation. This farm has a herd of only thirteen fairly good Shorthorn and Holstein milking cows, but the cheese-factory returns amounted to only \$123 last year, and averaged about \$40, or a little over, each year. The factory opens early and closes late, making a good season for farmers to get rid of their milk. Also, bought ten hogs in the spring, and sold them in the fall, and never has any feed to sell. Now, from these two sources comes the only revenue of the farm, and they don't amount to a great deal, as you can plainly see, and the owner complains that farming does not pay. Now, don't you think that there is a screw loose in the management of this good farm, and consider it a hum-drum way of farming, and that it would increase this farmer's income if the manager would wake up, get out of this old rut, and run things properly, such as to build a silo and have silage for his cows and also increase his herd, and keep them milking almost the whole year, except for the short period of rest required by each cow;

also, to begin weighing the milk, weeding out his herd, and keeping only the good cows? I think this farm would support 30 or 35 cows, if he wanted to make a specialty of dairying, provided he would grow enough silage to last until after haying, and in the meantime the cows could pasture in the woods, as his neighbors' do. Kindly let me hear from you through your columns as soon as convenient, and state what you would consider a good income from this farm.

JAS. J. McEWEN.
Hastings Co., Ont.

[Note.—We cannot do better than suggest that the dairyman referred to follow the counsel above proffered, except the pasturing of cattle in the woods. Unless it be a very thick bush, such grazing is bad for the woodland, and should be avoided, by providing pasture and soiling crops

instead. By the methods outlined, together with others in keeping, such as the use of a first-class pure-bred dairy bull, the adoption of a short rotation, the growing of alfalfa and some other soiling crops, and probably the underdrainage of his land, this dairyman, as well as a great many others, could soon step from the hundred into the thousand-dollar class. There are dairy farms of 100 acres in this Province to-day producing gross incomes of three or four thousand dollars a year, and very few that could not be made to produce two thousand per annum after a few years of up-to-date management. Nor does it require large capital to begin. The results indicated may be attained by any present dairyman, without borrowing a dollar of capital, though, of course, without spare capital his progress will be necessarily slow at first. It will, however, be all the more sure. Success in the long run is not a case of capital, of environment, of wife and children, nor of health, though these various circumstances may help or retard. Ultimately and mainly, it is a question of the man, his gumption, his zeal, his industry, his principles; above all, his unquenchable thirst for knowledge, and determination to achieve the best that is in him. Circumstances cannot hold such a one down. The waves of adversity may splash over him, submerge him for a time, dampen his ardor, and swamp his cherished hopes, but sooner or later he will rise triumphant on the crest of the wave, successful where the weak-hearted and timorous have failed. Whether in business, profession, artisanship or agriculture, you can't keep a good man down. And a poor farm, a backward community, even the



Esther Piebe De Kol 2nd 66791.

Holstein cow, aged six years. Authenticated test: milk, one day 108.9 lbs., seven days 747.2 lbs., thirty days 2,885.8 lbs.; butter, one day 4.46 lbs., seven days 29.43 lbs., thirty days 114.79 lbs. Owned by W. F. Schilling, Northfield, Minnesota. Sire Homestead Jr. De Kol.

question to be answered is that there is no legal definition as there ought to be, for the protection of the public, as to what pasteurization is. As a result, every dealer is entitled to have his own standard, and he does so, with the result that there is very little milk that is scientifically pasteurized, that is sold to the public. Even among scientists, there are different standards of pasteurization. The best method of pasteurization, adopted by the Straus laboratories of the United States, is to keep the milk at a temperature of 167 degrees F. for at least 20 minutes, and sometimes for 30 minutes. In contrast to this method, the Dominion Milk Commission, appointed by the Canadian Medical Association at its last annual meeting, recommended the following in their report: "The term pasteurize should be legally applied only to such milk as has been inspected by a local board of health, and guaranteed to be free from adulteration within the meaning of the act, and to have been subjected for at least 20, and not more than 30, minutes, to a temperature of not less than 140 degrees, and not more than 145 degrees F., and at once cooled to at least 45 degrees F., and kept at that point until delivered to the consumer."

I consider pasteurization only a half-way house towards the pure-milk goal, and an expedient to be used only until we can secure a pure supply of raw milk. What we really need, and what we must have, is a supply of pure, wholesome milk, at practically the same price which we now pay for it—milk that the poor man can afford to buy, knowing that he is not endangering