ow, Sarcastic Lady Oyama, a
table official record and $360
a five-year-old with a good
King Alcartra De Kol, tracing
was also purchased by Pack
sire and a number of the mature
nt a good deal more than they
list of the animals selling for
with the names and addresses

ck Bros., Lambeth	$415.00
s.	
e, London	360.00
ack Bros	325.00
Ryckman, Delaware	340.00
Willis	230.00
ock Farm, Delaware	400.00
. Scott, Wilton Grove	205.00
Delaware	200.00
dams, Southwold	220.00
tock Farms	200.00
eyes, Hyde Park	140.00
inkler, White Oak	145.00
ambeth	155.00
	210.00
D. Norton, Tambling's	100.00
oft, J. Carrothers,	220.00
Ireland	220.00
ir, Stock Farms	240.00
F. B. Barnard, Glan-	140.00
	177.50
Bogue, Byron	175.00

Strong & Sons' Ayrshire Sale.

On March 4, W. G. trong & Sons, of Gorrie, isposed of their fine herd f Ayrshires. The herd con- ained representatives of me of the best strains of is dairy breed, and many them had creditable cords. They had the size d quality to commend em to all interested in this eed, and it was unfortun- e that more of the breed- s were not present, as they ssed a splendid oppor- nity of securing good undation stock. The ghest-priced animal of e sale was Spottie of alnut Hill, which went the bid of F. Armitage, Napanee, at $265. Fol- ving is a list of the ani- ls selling for $100 and er together with the mes and addresses of the rchasers:

, Gorrie	$125.00
n, Gorrie	145.00
itage, Napanee	265.00
panee	215.00
	232.00
loway, Gorrie	255.00
e, Gorrie	210.00
Gorrie	197.50
e, Gorrie	250.00
Gibson, Wroxeter	165.00
son, Wroxeter	175.00
e, Napanee	187.50
Harriston	160.00
lson, Bluevale	107.50

of Milk.

interesting and timely man with regard to the hether the can of milk egrees below zero would than a can of milk set The answer, of course, l the dairyman referred g that water is a much , and that for this reason of milk nearly so quickly

rmers are making pre- during the hot summer most important points aking the dairy sections hat not more than fifty or sell whole milk in ewith to cool it. Last ious in this regard be- this year there seems of excellent quality. beautiful, clear blocks k, that will make the the milk cool during course, the most satis-

factory method of keeping milk cool during the summer, and as a general rule we have found that a ton of ice per cow, or a little more, is about the amount usually put in by dairymen. The morning's milk is usually cooled immediately and shipped, but the night's milk must be held until morning, and it is during the night that the ice is used.

In a great many instances the milk is held over night in a cement tank in the milk house. In one case, the water tank was in an unused room at the back of the house. Here a wooden water tank was in use. Originally there had only been one thickness of board between the water and the air, but the owner said that after he had put in a second box or tank inside the first one, and separated the two by insulating material, such as sawdust, a saving in ice was effected amounting to fully fifty per cent. The accompanying illustrations show a neat and convenient type of milk house which can be kept cool and supplied with water from a water tank or other system, and a milk cooler which is in use on a farm in the county of Oxford. One farmer that we heard of keeps his milk cool by using the gasoline engine to pump water constantly through the tank.—This, of course, implies a considerable supply of water which is not always available. Then, too, the water from some wells is much cooler than others, so that it is necessary to pay attention to all of these details in order to cool milk and keep it successfully without spoiling. We are giving herewith the following paragraphs, prepared by L. A. Gibson, Dairy Commissioner for Manitoba, which may be of some assistance.

Now is the time to prepare for the hot weather in June, July and August. Thousands of dollars are lost annually to the producers of milk and cream on account of its not being properly cooled. When milk or cream is not properly cooled, there develop bacteria that produce bad flavors, and this lowers the grade of the manufactured article. Every dairymen who produces and delivers a high grade of milk and cream raises the average quality of all the milk and cream, and as a result a better product reaches the consumer.

Proper cooling is just as important with cream as with milk, if not more so, especially as cream usually is delivered less frequently, and therefore has greater opportunity to undergo undesirable fermentations. Proper cooling is easily done with little additional equipment or labor. Ice can be on every farm in Manitoba. In some cases it may be necessary to ship it in, but it will pay to do so, not only for cooling milk and cream, but on account of the various uses it can be put to on the farm, such as keeping meat, butter, etc., and the making of ice cream.

When ice is not available, water pumped for the use of horses and other live stock should first flow through the milk cooling tank. The inlet should be placed at the bottom so that the water flows in and around the milk cans and then out at the over flow near the top into the stock tank. The water in the tank should be changed frequently. Unless the tank is protected from the direct rays of the sun, the temperature of the water is raised several degrees, and thereby the cooling capacity is considerably reduced.

There is nearly as much damage done to milk and cream by not watching the cans closely as there is from lack of cooling. Do not put the cream or milk into cans after being returned from the creamery or factory before thoroughly washing them. Although they are washed at the creamery, they become stale and smell bad usually before reaching the farm. Wash and thoroughly scald all cream cans before filling. To produce the best milk and cream, adopt the following simple measures:

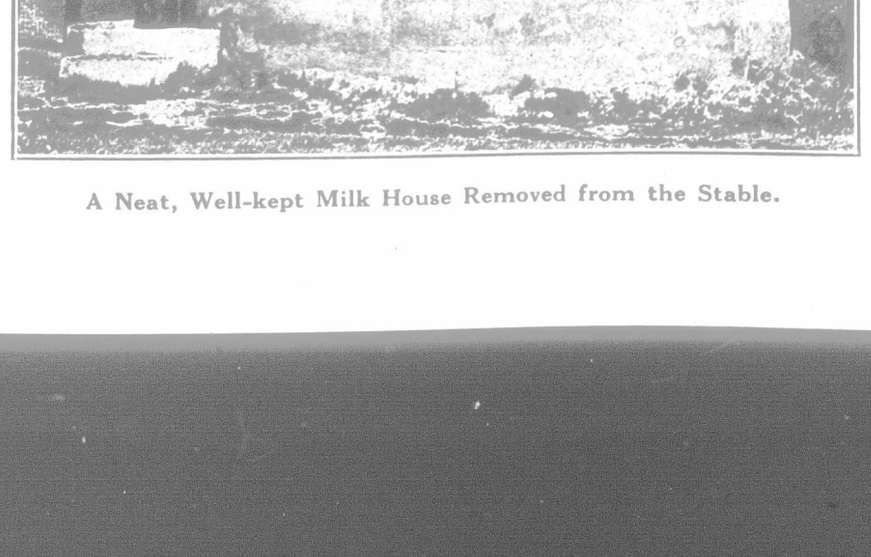
1. Keep the cows clean. The udders and flanks of the cow should preferably be brushed regularly to remove dirt and dust. If the udder is wiped with a damp cloth just before milking, much dirt and dust will be kept out of the milk.

2. All utensils should be clean. All pails and cans should be washed with a brush, cleaning powder, and finally rinsed with boiling water.

3. Keep the milk and cream as cold as possible by putting the can containing it into a tank of cold water and ice and stirring frequently. Milk and cream should be held at a temperature of 50 degrees F.

4. The can of milk or cream should never be left uncovered so that flies or dirt blown by the wind can enter.

5. Straining out the flies and dirt from milk does not leave the milk in a wholesome and clean condition. Bacteria when once introduced into milk by unclean methods will spoil the milk.

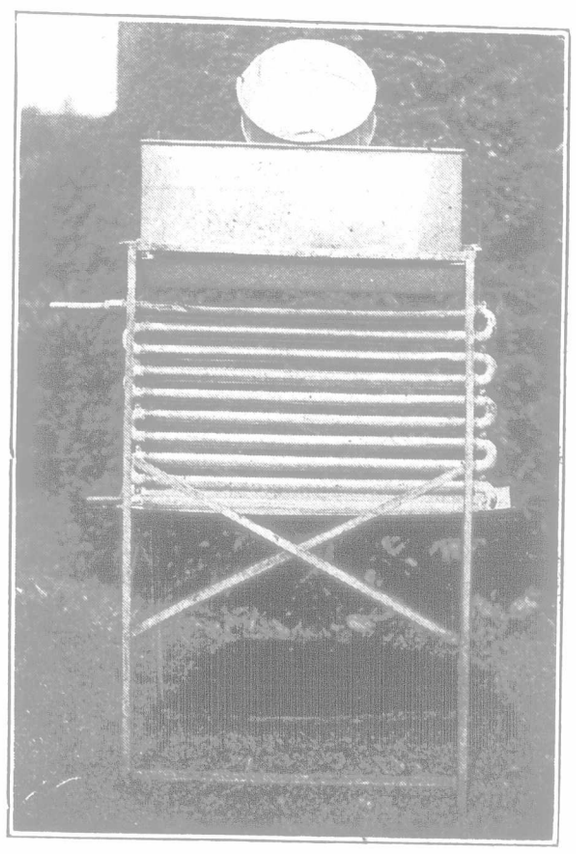


A Neat, Well-kept Milk House Removed from the Stable.

HORTICULTURE.

Progress With Sprays and Spraying Since 1914.

Ever since the beginning of the war the control of insect pests and fungus diseases has been proceeding in a more or less desultory manner so far as the average fruit-grower is concerned. A few men whose whole business was fruit growing found it necessary to continue spraying practice at any cost throughout the war but so far as the average apple orchard is concerned, neglect of spraying was very common. Notwithstanding the disabilities of fruit growing throughout the



An Efficient Cooler for the Milk House.

war, improvement in methods has gone on and the study of disease and insect problems has been continued by officers of Departments of Agriculture as thoroughly as conditions would permit. Several changes are to be noted from the methods advocated in pre-war days and it has been our purpose in this article to bring spraying practice more or less down to date so that readers could know just where the various problems stand. For the most reliable information a representative of "The Farmer's Advocate" has interviewed Professor L. Caesar Provincial Entomologist, Ontario Agricultural College, Guelph. Readers may put full confidence in what Professor Caesar says because not only is he a very careful and observant entomologist but he has made himself doubly valuable to the fruit-grower because he has acquired a wide knowledge of practical Horticulture which has helped him to make his suggestions practical.

THE CODLING MOTH.

The Codling moth is the commonest and most troublesome apple insect in Ontario, but is subject to control by anyone who will spray carefully. One should not make the mistake of thinking that spraying one year will rid the orchard of this pest forever. Professor Caesar was emphatic in the statement that there is undoubtedly a cumulative benefit from spraying, which he instanced by last year's experience with this pest. The year 1919, he said was undoubtedly the worst year for Codling moth we have had for 10 years. Two factors with a possible third, go to explain this. The mild winter of 1918-1919 caused a low mortality among the larvae of the Codling moth, which winter over under the loose bark of the tree or in any convenient shelter. The second factor was the very hot, dry summer which provided especially favorable conditions for development and resulted in the production of a much larger per cent. of a second brood than is usual. A possible third factor arises from the fact that the blossom season was very short and the weather was so warm that many blossoms wilted and hung on to the trees, thus keeping parts of the young trees covered and inaccessible to spray materials. Thus the percentage of side worm infection from the first brood was larger than usual. In spite of the great prevalence of codling worm last year, however, Professor Caesar informed us that where growers had been spraying regularly for two or three years previous, they experienced little difficulty last year.

Nearly every grower has practiced, or knows of "the three regular sprays for apples" and it may be opportune here to review the character of these sprays as now recommended. The first spray, formerly called the dormant spray, should be applied when the leaves are the size of a ten-cent piece, in order that it may be held on the tree better and have some value against scab. Use one gallon of lime-sulphur to seven gallons of water for San Jose Scale, or a bad infestation of Oyster Shell Bark Louse. If one is sure neither of these pests are bad, or that Blister Mite is not serious Bordeaux mixture may be used. The new formula for Bordeaux is 3 pounds of bluestone or copper sulphate, 5 or 6 pounds of hydrated lime and 40 gallons of water. Hydrated lime is more convenient than stone lime and will keep indefinitely if placed in an air-tight paper bag in a dry place. It is also safer and more of it can be used. It will be noticed that there is no poison applied with the first spray.

The second or "pink" spray, applied just before blossom buds burst, is made with 4-6-40 Bordeaux, or in other words the same Bordeaux as above except that another pound of bluestone is added. Lime-sulphur may be used if preferred at a strength of 1 to 35 or 40. A poison is applied with this spray and, as a rule, either arsenate of lime powder at a strength of ¾ pounds to 40 gallons of the spray mixture or one pound of arsenate of lead powder to 40 gallons will prove equally effective. There is no difference between the effectiveness of arsenate of lead paste or powder if used with other substances except that the paste is only half the strength of the powder. When used alone with water, the paste sticks a little better than the powder. The third, or so-called codling moth spray, applied when about 90 per cent. of the blossoms have fallen consists of one gallon of lime-sulphur to 40 gallons of water with one pound of arsenate of lead powder added.

From observation and some experience during the war years Professor Caesar says there is reason for believing that a spray of arsenate of lead, with or without a fungicide, applied two weeks after the third spray is the best method of overcoming the seriousness of the codling moth. A spray at this time he believes is much better than a later spray applied in August for the second brood. The reason for this is that when the apple is very small it is covered by pubescence or very fine hairs, which prevent the entrance of side worms. About two weeks after the blossoms fall, however, this pubescence generally begins to disappear and the worms can enter the side of the apple, which is then about ¾-inch in size. A spray at this time will prevent these side worms from doing any damage.

SAN JOSE SCALE.

There has been no change in the method of control for San Jose Scale. It should be pointed out, however, that this has been practically annihilated in orchards that are situated around the border lines of districts where it can develop. This has been due to the severity of the winter of 1917-18 and even in the Niagara district and other localities where it has always flourished, the prevalence of San Jose Scale has been wonderfully reduced. "There is less San Jose Scale in Ontario today", said Professor Casear, "than for 20 years. The great thing in its control now is that wherever it is left, every orchardist who has had trouble in the past should keep the upper hand."

APPLE MAGGOT AND CHERRY FRUIT FLY.

The apple maggot is not general, we were informed, but is exceedingly troublesome in some orchards, particularly east of Toronto between Brighton and Brockville, and between Iroquois and Ottawa. "There is, no doubt, but that we have the remedy" said Professor Caesar, and we know that the seven years work which he spent on this pest is responsible for the remedy being found. Nothing but arsenate of lead is required, but it is necessary to use 2 to 3 pounds of the paste in