

THE DAIRY.

Cuba and the Republic of Columbia appear to be taking a few Ayrshires from the U. S., 10 head having gone to the former country, and a young bull to the latter recently.

The Board of Directors of the American Jersey Cattle Club has recently decided to strike out the seven-day milk and butter-fat test. Information from the Secretary's office says that the seven-day test has not proven to be the poor man's test as claimed for it. Apparently the chief reason for striking it out is that this test has been but seldom used in recent years, there being 13,000 completed yearly Jersey records, averaging 7,932 lbs. milk and 424 lbs. fat. The tests of 4,500 mature Jerseys average 9,218 lbs. milk and 487 lbs. fat.

Lulu Alpha of Ashburn, an Oregon Jersey, has the distinction of having produced 13,668.7 lbs. milk and 800.08 pounds of fat in one year, a record, it is said, that

no other yearling of any breed has ever come within 100 pounds of equalling. The displaced champion is Silver Chimes Gwendola, with a record of 10,799 lbs. milk and 643 lbs. fat. The owner of Lulu Alpha of Ashburn has only been in the Jersey business for two years, and she was only given ordinary farm care. Her feed was as follows:

Millrun.....	2,448 lbs.	Roots.....	635 lbs.
Molasses.....	622 lbs.	Silage.....	8,103 lbs.
Oat chop.....	1,553 lbs.	Green feed.....	450 lbs.
Oilmeal.....	706 lbs.	Kale.....	4,136 lbs.
		Hay.....	2,608 lbs.

The last Dairy Produce Market Report of the season to be issued by the Dairy Division, Ottawa, contains the following for the week ending December 20, 1919:

"During the week at Montreal some of the best fresh creamery butter was sold by dealers to the British Government at 63 cents on spot; best grass creamery in pound blocks was sold to retailers at 67 to 68 cents. From May 1 to December 20, receipts were 453,838 packages, against 464,345 packages for the same period last year, a decrease of 10,507. Lower prices in New

York for everything below extras has been responsible for the return to the Toronto market of some Ontario butter that had been held in New York in bond. Trade in undergrades of butter on the New York market did not assume large proportions with most holders anxious to sell and willing to make reasonable concessions in price. In the week ending December 13, 404,663 lbs. of butter were shipped to France from New York, and 10,980 lbs. from Philadelphia. Seventy carloads of U.S. butter from Chicago were loaded at West St. Johns, last week, for Great Britain consigned to the British Ministry of Food.

"There is nothing new to report regarding the cheese market. From May 1 to December 20 receipts of cheese at Montreal were 1,551,018 boxes, against 1,704,703 boxes for the same period last year, a decrease of 153,685 boxes. A New York cheese exporting house sold for export thirty tons of white Canadian Cheddar, in half sizes, at 28½ cents f.o.b. Montreal, in American funds. In the week ending December 13, 747,311 lbs. of cheese were shipped from New York to Belgium; 9,000 lbs. to France; 15,178 lbs. to Scandinavia, and 67,332 lbs. to the United Kingdom. We are informed to-day by cable that the retail price of imported cheese in Great Britain will be raised from 1 shilling and 6 pence (36 cents) to 1 shilling 8 pence (40 cents) on the 23rd of December.

Provide Ice Now for Hot Weather Next Summer.

During the hot summer months one hears on every hand the wish that ice had been stored in more liberal quantities during the winter and complaints as to the difficulty of keeping milk and cream sufficiently cool to avoid souring. Now is the season of the year to render unnecessary any such complaint next year. During the month of January the opportunities for harvesting ice are usually more plentiful than at other times and farmers generally, but particularly dairymen, should avail themselves of the chance to gather ice for the summer. Not every district is supplied with plenty of good cold water and on the majority of farms running water for the milk and cream is not possible because there is no system of waterworks aside from pumping machinery to fill the tank occasionally. Dairy farmers who are shipping whole milk any distance or who are supplying condenseries or powder factories know that milk must be delivered in a fresh condition, because processing cannot take place if there is any appreciable degree of acidity. From time to time we have had the opportunity of looking over the records of milk receiving stations and have been amazed at the quantities of milk that have been turned back as sour, particularly on Monday mornings. Just recently the courts have decided that milk companies may receive milk in their factories on Sundays because of the difficulty of keeping it cool until Monday in hot weather. During the investigation into the Sunday milk question officials of one company stated that not over 50 or 60 per cent. of their patrons had ice to use during the summer months and they used this as an argument for Sunday delivery. In most dairy districts and in most winter seasons there is very little excuse for not gathering a supply of ice, since the cooling of milk and cream is so important financially to the farmer that the cost and trouble of getting the ice is usually not very large. Moreover ice is a great source of convenience about the farmhouse in the summer time, aside from the dairy. A little time and trouble in the winter time would make it easier many times for the housewife.

A PLACE TO STORE THE ICE.

No elaborate ice house is needed in which to store the ice. A part of the driving shed can be partitioned off with rough lumber, or a lean-to can be built up against the barn or shed, or a rough ice house can be built by driving a few posts into the ground somewhere near the milk house and boards nailed either inside or outside of these posts to form a shed, the top being covered over well enough to keep out the rain and the sun. It is well, of course, where a considerable quantity of ice will be needed, to construct a durable ice house in such a way as to keep the ice in the best condition during the summer and where this is done it is often most

convenient to build a combined milk and ice house. Even this kind of a structure need not cost a great deal of money, although the milk house must be built for sanitation and cleanliness. The size of the storage house depends, of course, upon the quantity needed. For the dairy herd this will be about two tons per cow, if ice is fairly easy to obtain, otherwise a ton per cow will do, but one should not have less than this amount. It does not require a very large area of ice nor a very large store house to take care of thirty or forty tons of ice, since a cubic foot of ice weighs 57 pounds and ten cakes of ice a foot thick and 22 inches square will make a ton.

Space must be left for packing, because considerable must be lost if the sun and air are not kept from the ice. One foot on the bottom, a foot on each side of the building and two feet or more on top of the ice must be allowed for insulation from the outside and for ventilation. Drainage is essential since more or less melting will occur during the hot weather and the resulting water must be allowed to get away or it will cause further melting. A row of tile or a few rails laid down will provide sufficient drainage if it is necessary to provide it artificially. Care must also be taken to guard against a circulation of air under the ice because the warm air will increase the melting but the warm air on top of the ice pile must be allowed to get away by some method of air circulation. Openings beneath the eaves and in the gables will be sufficient to allow of some circulation. As intimated above, insulating material must be provided. Usually, in the ordinary rough ice house, sawdust or planer shavings are put to very satisfactory use, although in carefully built ice houses it is customary to build specially insulated walls which do away with the necessity of so much insulating material inside. If sawdust is used it should not be too green because green sawdust has a tendency to heat. Space should be provided for a foot of sawdust packing on the bottom, and on each side and for two feet on top.

GETTING THE ICE.

In some localities close to large towns it may be possible to get artificial ice, but usually one has to depend on some good pond nearby or on some stream that freezes over. Care should be taken to see that the ice is good. Where it must be brought into contact with foodstuffs and particularly where it may be used for household purposes it should be clear and clean. Old

ponds of stagnant water covered constantly with a clean scum are not satisfactory sources of ice for the dairy. Freezing does not necessarily destroy disease germs. If the ice is twelve inches thick a space thirty-five by forty feet will supply forty tons of ice. Very often one sees ice being put into storage that is more or less encrusted with snow. This is not desirable and the snow should always be cleaned well off before the cutting is done, since close packing is necessary for the ice to keep well and this is made impossible if there is much snow on the ice. Considerable snow over the ice will delay freezing so that if the snow is cleared off several days before the cutting is to be done, the cold weather may thicken the ice considerably in the meantime.

The equipment necessary for ice harvesting is not extensive unless very large quantities are to be cut. All that is necessary is a cross-cut saw with one handle removed and a plank to use as a straight edge, in addition to one or more pairs of ice tongs and an ice hook. The work could be made much easier and quicker if the members of a farmer's club were to co-operate in harvesting the ice crop. In such a case an ice plow might be a good investment and would save a great deal of labor. A simple derrick could also be constructed that would make loading very much easier. A strong upright or a base that will slide readily over the ice is all that is necessary, except for a long pole fastened at the top of the upright to act as a lever. A pair of tongs fastened by a chain to the short end of this lever and a rope on the long end will provide all the machinery necessary to swing the heavy blocks to the sleighs. One man can handle the tongs and another man the lever.

STORING THE ICE.

The advantage of cutting the blocks of ice as nearly square as possible will be readily seen when it comes to storing or packing them. To keep well, the ice must be packed solidly together and this is very greatly facilitated by square uniform blocks. After a foot of sawdust has been laid down on the floor of the ice house, the blocks are merely placed as closely together as possible, so as to prevent a circulation of air between them. Any unavoidable cracks or crevices should be filled in with small pieces. If the weather is cold, a little water poured into fill up will not do any harm except to make it more difficult to get out the blocks. Each layer of blocks, when completed, should show a level surface and if necessary an axe or edge can be used to level it up, the chips being used to fill the cracks. Continue filling in, layer upon layer, until the required quantity is stored, allowing about three or four tons for the requirements of the house. When finished one should have practically a solid block of ice, which,



Where Several Co-operate Ice Harvesting Can be Made Much Easier.



It Does Not Take a Large Area to Furnish Ice in Large Quantities.