

ions have
e of great
oats must
rse, must
crop must
the field,
eneral ap-
25 points;
sects, 10
0 points;
Now, in
ew things
rst place,
ocked out
because
p will be
Always
l. If the
e manure
e manure
the stable
es a short
and even
the pig
and ripen
are as it
eld alike.
om from
the com-
make sure
us of a
we keep
a box at-
en a bad
the box.

t, blight
and no
ldehyde
d blight
ve your

of grain.
fanning
ear you
In the
ality of
way a
e better
part to
and work
a heavy
used the
nothing
e stook,
or good.
to take
ing the
noxious

t, Jr.

ing

a of the
e, with
erested
ding in
art are
a they

ollows:
udent
curate
s are
to the
judge
atoes,
ons of
piece,
yield

it the
frost
done.
n the
The
ng as
The
made,
ation.
ter of
owing
round
ollow-
e rate
ut in
ed on
was
On
en so

and
e 28
o the
M. L.

It Pays to Test and Select Seed Corn.

EDITOR, "THE FARMER'S ADVOCATE":

Success in corn growing is not always achieved the first year in a field crop competition. In these competitions the principal scheme is getting pure seed. As a general thing I have a fair to good crop every year, and, had my seed been purer, I would probably have won during these past years. I have found that success only reigns when certain conditions are fulfilled. Soil, corn is adapted to, should be well drained, manured and plowed in the spring, of most years, although this year, it being so dry, I do not see that it would harm it much by being plowed this fall, as the ground is dry and sod will not rot before spring. I like the heat of the decaying sod to give the corn an early start. This done, the ground must be well cultivated and a good seed bed prepared. If this work is done in early spring you will not be sorry in the latter part of the season. When the soil is well disked and harrowed we are ready to plant. I always use a planter, and plant in hills forty-four inches apart each way. It takes about one bushel to plant four acres. As forty points out of one hundred are allowed for purity of variety, it pays to plant only pure seed of a standard variety which is adapted to your locality. Before planting my corn I like to test the seed and plant only seed of cobs that show 100 per cent. germination. This part is very interesting. In order to test it I get a box 22 x 22 x 4 inches and place two inches of earth in it. By planting every two inches, I am able to test 100 cobs at once. I take five kernels off each cob. Each row in my box or tester is numbered from 1 to 10, and I have corresponding numbers on the cobs. All cobs that do not show 100 per cent. germination are discarded for seed purposes. Having the corn planted, it should not be neglected. After giving it about two weeks' start I spend a half day in the corn field with a hand planter, replanting where the mischievous crows or grubs might have eaten out, as sometimes they play havoc in new sod. The June showers give the corn more vigor; it also brings the weeds on,

and unless they are stopped now I find they turn out to be a bother later on. As a general rule I give my corn field about two or three hoeings in the season, and cultivate about once a week. About the third to fifth week, each hill should be thinned down to three or four stalks, so as to give them more room to grow and mature. I have followed this plan and found it successful. This year, being a very backward season, I did not get my corn planted until July 8, but I had a good stand and was a successful competitor in our contest.

I think each county should have a breeding station for each kind or variety of corn; if not, there is going to be many different kinds of each variety, as no two persons pick the same quality of corn for seed purposes in the same variety.

Lambton Co., Ont.

KEITH R. HILLIER.

A Graded Prize List Might Mean Increased Entries.

EDITOR "THE FARMER'S ADVOCATE":

The purpose in establishing field crop competitions is to encourage the production of larger crops. They also encourage the growing of clean crops that shall be as free as possible from weeds, and uniform in variety and quality. They also help to determine the varieties of grain and roots that are best adapted to each particular part of the province.

Field crop competitions have undoubtedly done more to interest farmers in good seed and better methods of cultivation than any other scheme instituted by the Department of Agriculture. A man who enters a crop competition puts his best into making that entry as good as possible. If he puts the same principle into the management of his whole farm he has a fine farm, a farm that is improving every year, a farm that is an example and inspiration to his neighbors.

A further improvement is the bringing to the notice of farmers a few good varieties of grain, rather than a

large number of poor sorts. An example of this is the O. A. C. No. 72, Banner, and Lincoln oats. When the field crop competitions were originated, in looking over the annual report one would see nearly all varieties known. Now, looking over the report we see few except the above three. Similarly O. A. C. No. 21 barley has defeated all competitors.

One improvement that might be made is to extend the prizes according to the numbers of entries. If there are twenty entries or less, give the regular prizes, and for every ten extra entries give say two extra prizes. This I think would encourage a large number of farmers to enter, as there would be more chance of getting a prize.

Another improvement, I think, would be to give each prize-winner a ribbon, similar to that given for horses etc., at the fall fairs, with the winner's name and place in the competition on it.

Now that we hear so much about Patriotism and Production it should give an added impetus to field competitions for if we can increase the yield per acre it is much better than putting in a larger acreage.

Dufferin Co., Ont.

WM. EWING.

THE DAIRY.

Changes in Dates of the Live-Stock Meetings.

Since the dates of the Live-Stock Meetings were published in "The Farmer's Advocate of December 21, 1916, we have learned from John W. Brant, Accountant, National Live-Stock Records, Ottawa, that the Directors' Meeting of the Canadian Jersey Cattle Club will be held at 7.00 p.m. on Monday, February 5, instead of on Tuesday, and the annual meeting will begin at 1.00 p.m. on Tuesday, February 6, instead of at 10.00 a.m. on Wednesday.

Harvesting Ice for Use Next Summer.

From the standpoint of economy, a supply of ice should be stored on every farm. Ice aids in making more palatable many a food product, and in preventing the souring of milk and the spoiling of fruit and vegetables. The city housewife considers it almost impossible to get along without a daily supply of ice, but, owing to the impossibility of having meat, fruit and vegetables delivered at the door daily, it is more indispensable on the farm than in the city. Besides supplying the household refrigerator, in which butter, meats, fruit and milk can be kept in good condition from one meal to another, many refreshing desserts may be provided. Possibly dairymen find more use for ice than any other class of farmers, as it is necessary to cool the milk down quickly after it is drawn, in order that it may be delivered to market in the best condition. It is also necessary to keep the cream and butter at a low temperature during the hot weather of summer. Some are able to do this by the use of water from deep wells or by utilizing running streams. This oftentimes requires a good deal of labor, and it is seldom that the milk or cream is cooled to as low a temperature as if ice were used. Each year sees the demand increasing for higher quality of dairy products. In order to supply this it is almost essential that there be access to a supply of ice during the summer months. With the introduction of the cream-grading system, there will be some incentive to market only high-grade cream, but this cannot always be done without some means available of holding the cream at a low temperature from the time it comes from the separator until it is placed on the market. The cost of putting up ice is not great, but the advantages are many. The season for harvesting ice is again at hand, and no farmer should fail to secure a supply which will facilitate the handling and marketing of many perishable products, and will also aid in furnishing many luxuries during the summer season which are dependent on ice for their keeping qualities.

Ice-house Requirements.

It is necessary to have some form of building in which to store the ice. It does not need to be an expensive structure, although the permanent ice-house with a refrigerator-room attached is possibly the most serviceable. At this season of the year it would be almost impossible to construct a permanent house. This need not deter anyone from harvesting a few tons of ice, as a shelter that will prove adequate can be built at very small expense, and will serve the purpose where ice is required for putting in a house refrigerator, or in water for cooling milk. One end of the driving shed, or woodshed, may be utilized, or a lean-to may be built at the north end of the barn. The ice-house should be out of the sun as much as possible, and it is advisable to have it convenient to the place where ice is most in demand. If it is to be used for cooling milk and cream, it is a good plan to build it near the milk-house. Drainage is essential, as ice is bound to melt more or less during the summer, and, if the water is allowed to accumulate at the bottom, it further tends to melt it. If the soil is of a heavy, compact nature artificial drainage may be supplied by excavating to the depth of eight or ten inches, lay a row of tile a little below this and then fill the trench with stone, gravel or cinders. If this material is not available for this winter, a few rails can be laid on the ground, which tend to give a fair amount of drainage. Care must be taken to bank up around the sides

to prevent air circulating between the rails. While free circulation of air under the ice is detrimental, provision should be made for it at the top; otherwise the sun coming in contact with the roof would tend to cause the air to become stagnant and result in waste of ice. By having an opening beneath the eaves and in the gables, the air will circulate through. A good roof is necessary, as it would not take long for the water from a leaky roof to spoil a large quantity of ice. In a permanent storage place care should be taken to build the walls of non-conducting material. With the cheaper house insulation may be secured through the proper packing of the ice in good-quality, dry, clean sawdust or planer shavings.

It is generally estimated that three tons of ice will supply the house refrigerator, and that one and one-half tons should be stored for cooling the milk of each cow. If building a house this will give some idea of the size necessary. It is usually figured that one ton of ice will require about forty-five cubic feet, then at least one foot must be allowed on all four sides, two feet on the top, and about one foot on the bottom for packing. If twenty tons of ice are required, the ice-house should be about twelve feet square and twelve feet high. This will allow for the required amount of packing. Several feet could be added to the length of this to serve as a milk-house. It would save carrying the ice any distance for cooling the milk or cream. The accompanying illustration shows a house built of rough lumber, serving the purpose of milk-house and ice storage. We have seen ice kept very satisfactorily in the driving shed. The cracks were battened to keep out the air, and the inside partition consisted of a single ply of lumber. If a building of this nature is not available, a few posts can be sunk in the ground even at this time of year, and rough lumber nailed on either the inside or outside of the post will keep the packing around the ice. There is little outward pressure. For an ice-house of the size

required to store twenty tons, four posts on a side would be quite sufficient, in fact three might do. If located beside another building a shanty-roof can be put on it. This can be made of various materials, some of the prepared roofings being the quickest to apply. The main thing is to have something that will keep out the rain and, to a large degree, deflect the rays of the sun. A door can be put in one end, although we have seen houses where the opening was closed by loose boards as the packing was put in.

Where to Get Ice.

There are two sources of supply, natural and artificial. Those located near where artificial ice is manufactured might find it very convenient to get their supply in this way. A pure product is generally secured and the cakes are cut square, which facilitates packing. However, very few are near a source of supply of this kind, and must depend on securing their crop from some pond or stream. Care should be taken that the water from which ice is made is clean and pure, especially if the ice is to come in contact with food products. Freezing does not necessarily destroy disease germs which may abound in water. Ponds where green scum forms should be avoided. To secure twenty tons will not require a very large area. It is estimated that a cubic foot of ice weighs about fifty-seven pounds, and that a ton will occupy approximately forty-five cubic feet of space. On this basis a ton of ice with cakes twenty-two inches square and ten inches thick may be cut from 42.1 square feet, and twelve and one-half cakes would be required to the ton. When the ice acquires a thickness of twelve inches, ten cakes make a ton, and thirty-five square feet would be required, or to fill an ice-house of the capacity of twenty tons it would be necessary to have seven hundred square feet of ice. This will give some idea of the area of pond necessary. Very frequently the ice becomes covered with snow,



Cutting the Season's Ice Crop.