

down and are unable to rise. As soon as possible send for a veterinarian to take charge of the case. Do not give the horse any medicine, unless directed to do so by a veterinarian.

#### PREVENTION IS EASY

To prevent azoturia, observe the following rules: If it is necessary for a horse to stand idle for a number of days during cold weather, cut down his feed, especially if he is in good bodily condition. Give a bran mash the evening before starting to work. Give the horse some daily exercise while idle, and see that the bowels are moving freely and regularly. When starting out from the stable, start slowly. Active, vigorous horses will want to step along freely after a rest of a few days, and it is in just such cases as this that we meet azoturia, if proper precautions have not been taken to prevent it.

### Why Buy a Pure Bred Sire?

Prof. H. H. Dean, O. A. C., Guelph

It is estimated that the average yearly production of dairy cows in Ontario, is between 3,000 and 4,000 pounds per cow. The majority of cow owners use a grade, or "scrub" sire to increase or maintain their herds. By the law of cross-inheritance, dairy qualities from the heifers, are chiefly obtained from the sire and not from the dam; hence the explanation of so many medium to poor milkers among heifers from common cows, which are themselves fair to good milkers. There is no one thing which dairy farmers could do, which would so quickly and inexpensively increase the average milk production of ordinary dairy herds as the use of a pure bred dairy sire, and this at small cost. We have frequently attended sales where dairy bulls of good breeding were almost begging for a customer. Frequently such are sold at about \$100 or less. This ought not to be in a dairy country like ours.

Let us look into this matter a little more closely. Suppose a milkman pays \$100 for a

should have, at the end of 10 years (not including progeny of heifers) 300 cows and heifers, worth \$100 each, or a herd worth \$30,000 on the 12 farms. For an investment of \$300 we have a return of \$30,000 in 10 years. Grade sires under similar circumstances would produce a herd not worth more than half this sum or \$15,000. This is assuming that they are all kept on the farm. In practice, they will not all be retained unless a man is prepared to increase his herd.

Looking at it in another way. The first cross on common cows with a prepotent dairy sire would in all probability, double the milk production of the grade cows at the end of the second lactation period. Instead of 3,500 lbs. of milk per cow in a year, we may reasonably expect a yield of 7,000 lbs. of milk for the first cross, and 1,000 lbs. per cow additional, yearly, for each succeeding cross, up to the third or fourth cross, at least. At the low price of one dollar per 100 lbs. of milk, this means a yearly increase of \$35 a cow, \$350 for 10 cows, \$4,200 for the Association of 12 cow owners, who have invested in three pure bred dairy sires.

We are quite aware that in actual practice it does not work out exactly as it does on paper, but we have no hesitation in recommending the use of pure bred dairy sires to all milk producers, who rear their own cows. Cows are becoming so expensive that it will pay to rear a number of good heifer calves each year. I was in a stable recently where a carload of very ordinary cows cost the purchaser \$74 each. The next day, another man showed me some cows that cost a good deal more than \$74 each. It looks as if the rearing of cows would soon be a profitable business, if it is not already such.

### Pointers on Sheep

Col. Robt. McEwen, Middlesex Co., Ont.

One of the reasons why there is little attention given by farmers along sheep lines is that there has been still less doing along educational

### An Advocate of In-Breeding

L. J. Flower, Queen's Co., N. B.

In a recent issue of Farm and Dairy there was a short screed on the evils of in-breeding. The Jersey cow was held up as a terrible example of what comes of it all. Is it not true that the most prepotent bull in American Jerseydom a half century ago was the offspring of an own brother and sister, and equally so that many present day animals of great merit carry his blood. No one will deny that Jersey breeder, to-day are intermingling the blood of the descendants of the great bull Golden Lad. But he is a rash man who dare say that the Jersey has not improved in the last 50 years. And the record of the only Jersey entered in the feeding demonstration at the National Dairy Show at Milwaukee in 1911 shows that she is right around the top when it comes to economical production of butter fat. What more would our friend have?

The dictum that "like produces like," or the likeness of some ancestor, seems to be very generally accepted amongst breeders. I had an impression that the more thoughtful hold it also true that in-breeding will fix the merits or demerits of a certain family on the offspring, and that it is only necessary to find an animal of great merit, and consequently few defects, to render the in-breeding of his descendants desirable. It is, to my mind, one of the plainest lessons in breeding history.

#### AN ILLUSTRATION FROM THE DOG

A half trotter or so ago, Mr. Russell Llewellyn founded a family of English setters that were invincible in field and showing. They were all descended from two animals—Duke and Rheobe.

No one will question the ability of the English thoroughbred horse to perform nearly any feat requiring speed and endurance. The foundation on which he is built was the blood of three horses crossed back and forth—the Darley Arabian, the Gololphin Arabian, and the Byerly Turk.

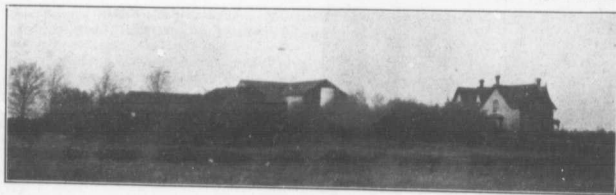
Several centuries ago, Count Orloff, a Russian, evolved a breed of horses which has few superiors in weight—pulling at a high rate of speed at the trot. One of its present day representatives, the grey stallion Krepesch, holds the world's record for the fastest straight-away mile on ice. Count Orloff descended these great horses by crossing the descendants of one horse, Prosty, one upon another.

#### TROTTERS ARE IN-BRED

The American trotter is the result of in-breeding the descendants of imported Messenger, more particularly those of his son Mambrino, and still more especially those of the latter's grandson Rysdyk's Hambletonian. Nearly every trotter of note carries several crosses of Hambletonian blood. Perhaps the most prepotent trotting stallion of to-day is Bingen, 2.06½. His first and second dams were by sons of George Wilkes, a son of Hambletonian, while his sire was by another son, Electioneer. Bingen's son, Nblan, the world's champion trotter, gets four additional Hambletonian crosses through Sir Walter, Jr., the sire of his dam. The Harvester, the world's champion trotting stallion, carries eight crosses of Hambletonian blood.

With such an array of facts for the guidance of the breeder, it seems to me that an assailant of in-breeding, in the abstract, is throwing away his time. He is beginning a little too late in the day.

In Sweden they take their seed barley to the cheese factories, where it is treated for loose smut in the vats of the factory at a cost of two cents to three cents a bushel.—D. H. Newman, B.S.A., Ottawa, Ont.



A Substantial Farm Steading in one of Ontario's Banner Counties

There are several points about the home of Wm. Levan, Halton Co., Ont., that might well be copied by many other farmers. Note the orchard, the silo, and, in the photo taken from a different direction, an attractive arrangement of shrubs in front of the house would also be seen.

—Photo by an editor of Farm and Dairy.

dairy sire. Or, what is better, suppose an Association of 10 or 12 farmers owning 120 to 150 cows, purchase three sires and divide these among three groups, having 40 to 50 cows in each group. The bulls could be changed at the end of four years, and again each two years, and thus have their services for eight years without in-breeding, for those who do not wish to "in-breed."

#### WILL IT PAY?

Let us look at the financial side of the question. Assume that 12 men owning 10 cows each, purchase three pure bred sires at a cost of \$300. Assuming further that half the calves will be bulls, which sell for \$2 each and that a limited number of extra cows, say 40, are served at \$2 each, we shall have an income during 10 years of \$2,000 from these two sources, which would pay interest on investment, cost of feed, risk, etc. If half the calves are heifers and then half of these discarded for various reasons, we

lines. Likewise we farmers are liable to follow the other fellow. One sells sheep and another does likewise.

I do not believe that dogs are as important a factor as is supposed in strangling sheep husbandry. Returns from municipalities show that the dog tax is never taken out in fines.

Many sheep men are losing much money through worms, and do not know the reason for the unthriftness of their flock; greater attention required here.

A ewe costs \$6 or \$7. In eight or 10 months we have an increase of 125 per cent. We have a lamb worth \$5 or \$6 for the increase. Thus we have the price of the ewe back and the wool for its keep. And we still have the ewe. I do not know of any other business that can offer the same attractive proposition.

I do not advise going into sheep on an extensive scale. I would prefer to see a small flock on every farm.

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