

The Pure Bred Sire—His Value*

How many of you have dairy herds that will average more butter fat per cow than your father's herd did, or perhaps than did your grandfather's herd? Have you made any improvement upon your father's methods of handling his dairy herd? Are you taking any steps to insure the heifer calves you are raising being better milk and butter producers than their dams? If you are using a "scrub" or a "beef bred" sire and hoping to have a herd of profitable dairy cows, your results will certainly not be very gratifying.

The task of building up a profitable dairy herd must begin with the sire. Without a pure bred sire, with the ability to get calves economically, all other efforts to improve your dairy herd must fail. The skillful breeder of any class of live stock realizes the importance of having a properly selected sire to head his herd. The average dairyman, however, gives this important subject little thought and makes use of a scrub sire because of the idea that it is cheaper to do so, or because his father got along all right with a scrub sire and he, himself, has not given the matter much thought. The scrub sire and the unprofitable cow go hand in hand in retarding dairy progress; where you find one you generally find the other. It is not necessary that every farmer have pure bred cows of a dairy breed in order to have a profitable dairy herd for high grades are just as efficient producers.

The following shows very distinctly the rapidity with which the qualities of the sire accumulate in the high grade:

Generation.	Blood.	Percent. Improved.	Percent. Unimproved.
1	1/2	50.	50.
2	3/4	75.	25.
3	7-8	87.5	12.5
4	15-16	93.75	6.25
5	31-32	96.87	3.12
6	63-64	98.43	1.56

This shows very well the truth of the often heard statement, "The sire is one-half the herd." It does not mean, however, that the same sire must be used throughout the six generations. This illustration is true whether or not a change in the sire is made. With the properly selected pure bred sire used on the common cows found in the average herd, the improvement will be much more rapid and the sire will be a great deal more than one-half the herd. His being pure bred gives him greater power to stamp his characteristics upon the offspring than can the grade cow.

Up-to-date dairymen are beginning to realize the value of pure bred sires in increasing the production of the herd and decreasing the cost of producing butter fat. Do not be afraid to pay a good prize for a pure bred sire to head your herd and never buy a sire because the cost in dollars and cents is low, for you will surely realize some day that his actual cost was indeed very great. If he is a sire that will produce daughters that have milking qualities developed to a high degree, the cost should be of secondary importance.

Valuable information as to the importance of the sire in improving or injuring the productive capacity of the herd can be had from a study of the dairy records of the State Agricultural College of Missouri.

By comparing 10 daughters of a sire with their dams, it was determined to what an extent these daughters were influenced by their sire, that is, whether or not they were superior producers to their dams. It was found that 10 daughters of one sire average 216 pounds of butter fat yearly; while their dams average 234 pounds yearly. It can readily be seen that this bull decreased the average production of the daughters 18 pounds under that of their dams. With another sire that was used there was no decrease or increase, the

*This article is part of an information circular sent out by the Blue Valley Creamery Co. to its patrons.

herd being at a standstill. Another sire which was used increased the average production of 10 daughters 110 pounds of butter fat per cow over that of their dams. This 110 pounds of butter fat at an average price of 25 cents a pound, would make \$27.50 that each daughter earned in excess of the earnings of her dam. Counting on the same basis 30 cows milked six years, we have \$4,950 worth of butter fat produced by the daughters in excess of that produced by the dams. You can readily see what the great value of this bull would have been had he been owned by a small association of neighboring patrons. He would have been cheap at \$1,000, while the other two bulls mentioned would have been expensive at \$10.00 because they left the herd in a worse condition than they found it. There is no question but that many farmers are lowering the productive capacity of their herds every generation on account of their paying no attention to the selection of sires.

Investigations carried on in some Indiana herds by the Indiana Experiment Station showed that herds in which pure bred sires were used were producing butter fat an average of 3 1/2 cents cheaper than herds which were ungraded. While the average profit per year from the ungraded herd was \$19.62 a cow, that of the graded herd was \$36.04 a cow. On an average the graded herd produced 64 pounds of butter fat per cow more than the ungraded herd. There is no question but that the purchase of a pure bred sire would be one of the best investments our patrons could make.

Hints for the Amateur Beekeeper

D. Anquish, Middlesex Co., Ont.

It is to every beekeeper's interest to look after his bees and to see that they have sufficient stores to carry them through until fruit bloom. Bees need quite a lot of stores from now on for brood rearing. The queen starts to lay eggs in March and her energy is increased according to the amount of stores that there is in the hive. The more eggs the queen is induced to lay, just so many more bees there will be in the hive when honey harvest arrives.

Since all the old bees, or the ones that were in the hive during winter, die off before June or before the clover honey harvest comes, it behooves every beekeeper to have all the young bees possible to take their place; and not be satisfied at that but have a great many more.

I have kept bees for a great many years and have had my failures, also successes, and I know nearly where the trouble lies. Beekeeping is not like a great many other pursuits. You cannot see into the beehive every day and see how everything is coming on the same as you may into a poultry house or cow or horse stable, and the bees cannot let you know when they want more feed. We have had a fine winter for bees; it was steady and we had a few nice days early, during which the bees were able to have a flight. The season has been very encouraging, especially to the beekeeper that had his bees well packed on summer stands. I packed away into winter quarters last fall 240 colonies all on summer stands. They are all alive and in fine shape and with abundance of stores to carry them through. I always look out for that in the fall.

See to it that you have everything in readiness for the honey harvest when it comes, for if you don't, it may slip by without you getting very much honey and then the only satisfaction you will have is to resolve that you will not be caught that way again—poor satisfaction.

The corn crop works into a rotation very conveniently, as a cleaning crop. It furnishes all the advantages of a summer fallow and at the same time yields a harvest that exceeds in value that of almost any other farm crop that can be grown in Ontario.—J. H. Coatsworth, Essex Co., Ont.

The Culture of Alsike Clover

Wm. F. Hardy, Victoria Co., Ont.

From experience gained from growing alsike for seed for about 20 years, I assure Farm and Dairy readers that to be a successful alsike grower a great many things must be learned from experience and from experimenting with the particular kind of soil with which one has to deal. The time of sowing and the way to prepare the seed bed differs but little from the approved way of seeding down to the common red clover. As soon as the land is dry enough to work mellow in the spring, thoroughly cultivate and harrow so as to have a fine seed bed.

We always sow the seed with some kind of grain, either wheat, barley or oats, using the grass-seed sower such as is attached to any common drill. After drilling, give the land one stroke with the harrows to cover all seed, and leave the soil as level as possible. I also try to get the land rolled before the seed germinates, otherwise the crushed earth would smother the small plants.

Opinions differ widely regarding the quantity of seed to sow per acre. I have known as little as three and as much as 10 pounds to be sown per acre. With our land, which is a strong clay loam, with a naturally well drained subsoil, I have found about six pounds per acre to give the best results. One must aim to have the plants thick enough to pretty well cover the ground. The object is to have the plants stand up well when they head out to blossom on the following spring instead of spreading over the ground and growing straw instead of seed.

After the grain crop is harvested where the seed is sown, I would advise keeping the stock from pasturing on it in the fall. The young plants need to get a good growth and the stubble should be left standing, since it proves a valuable protection during winter.

The growing and harvesting of alsike differs very materially from red clover. Red clover is usually cut the first time about June 20, and then left for seed at a second cutting. But alsike should never be treated this way. We keep everything off of it in the spring and study to have the seed mature as early as possible, as the early seed is generally the best. Alsike should be ready to cut at about the time of the last of haying, or about the same time as the early fall wheat. Experience mixed well with common sense and close study of the crop will teach you best when to cut and how to handle it after it is cut. It is easy to grow a good crop of alsike and then lose half the seed before you get it into the barn.

Cultivation of the Corn Crop

E. B. Tole, Kent Co., Ont.

Our corn is generally planted on stable ground, or ground that produced a grain crop the previous year. Our soil is a rich loam, neither sandy nor heavy clay; it sells readily at \$100 an acre, so we must grow a good crop to make it profitable.

We cover our corn ground in the spring with coarse barnyard manure. This is plowed under about seven inches deep in the beginning of May. We roll the land and let it stand for a few days. Then we thoroughly cultivate it both ways and roll again and cultivate it again and harrow it till the surface is quite fine. We generally mark the field both ways with a horse marker, making the hills about three feet nine inches apart. We plant with a hand planter, putting the corn in about two inches deep. We like to plant from May 24th to the 26th, as the ground is then in a warm state to start the corn.

As soon as the corn begins to show we run a light weeder—something like a horse rake—over the field, perhaps two or three times, to check the small weeds that are starting and to keep the land loose. When the corn is up about four inches high, we start to cultivate it with either a single or a double horse cultivator. A mar and horse