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s privileged rn herds on Hill at his It is a herd and bull It is not a ly imported tain. It is Shorthorns e breeding. was forcibly a consistent d not vary breeds of a as, centered

in the slightly varying degrees of meatiness. In the herd were many roans, which appear to be among the outstanding in dual nature. Four of the cows, imported in 1914, have yearly records averaging over 11,790 pounds, most of these coming from the Robt. W. Hobbs & Sons establishment at Kelmscott in Great Britain. This latter herd had 170 cows that averaged over 6,000 pounds of milk per year. One cow, Rose 26th, during six years averaged 10,642 pounds of milk. In proof of the dual-purpose cow's ability to produce large flows, of milk, it might be well to mention the late Geo. Taylor's establishment in England, from which 32 cows were sold in 1912, having to their credit 10,000 pounds of milk per year. The cow, Darlington Cranford 5th, owned by Mr. Taylor, averaged more than 10,000 for 10 years, and during that time produced 11 calves. The cow, Dorothy, in the Tring herd, averaged 10,553 pounds for 10 successive years ending with 1913. In that year her milk record was 15,951 pounds.

The blood in the noted English herds traces back to the Bates Duchess family, as sold in 1873 at the New York Mills' sale, 24 years after the great breeder's death. At this sale fabulous prices were secured, the breeders in the Old Country recognizing the constructive breeding performed by Thos. Bates, of Kirklevington. The highest-priced individual at that sale, a cow, was \$40,600, another cow of the same family sold for \$35,000, another \$30,000, another \$27,000, and another for \$25,000. Forty head belong to this celebrated family sold at an average of \$18,742. Probably they were not worth the money paid for them, but due to the fact that they comprised the main breeding descended from the Bates establishment, and recognized to be of great merit, they were secured as a foundation herd to continue the dual-purpose breeding, and were a sterling tribute to the work of that great breeder. Although a few of the beefier types have been used from time to time, the general conformation largely represents fairly consistent breeding since 1800, in which attention was paid to perpetuating the deep-milking kind of such a type that produces a good beef steer. Hence the breeding that is to be seen on Mr. Hill's establishment is no short-lived line, but dual-purpose ancestry of such a type produced by long years of fairly consistent work. Some will be skeptical of their merits as beef producers, in view of the fact that such productions have been secured. We had the opportunity of seeing four steers from heavy producers on Mr. Hill's farm which had been raised by hand, and very creditable in beef type. In further proof, one of his cows, Charming Lass, was shown at the Minnesota State Fair last year, which furnished an excellent illustration of the presence of the dual quality in this class of cattle. She had to her credit 11,000 lbs. of milk in a year, and her progeny, the steer Joe by her side, was an exceedingly fine specimen of beef animal, weighing 2,060 pounds at three years old.

In type the cows are fairly large with moderate beef tendencies, and with large udders. Those that were dry were in high flesh, while those in heavy milk were of the thinner order as could be expected, but yet not approaching by any means the lack of fleshing evident in straight dairy cattle. There are two notable herd bulls, the one Brondsbys Coming Star, by Royal Broadhooks, with 10,000-pound dams behind him, and the other Tamony by Tamini, whose dam, Harmony the 2nd, produced 10,045 pounds of milk per year. Coming Star is a red bull of great scale, finer at the shoulder than beef bulls, and not so heavy in the hindquarters, while Tamony is slightly more of the massive order, deep at the heart and heavier at the shoulder. These two bulls have a number of nice heifers, and although several of them are heavy in calf, they have not had an opportunity as yet of proving themselves.

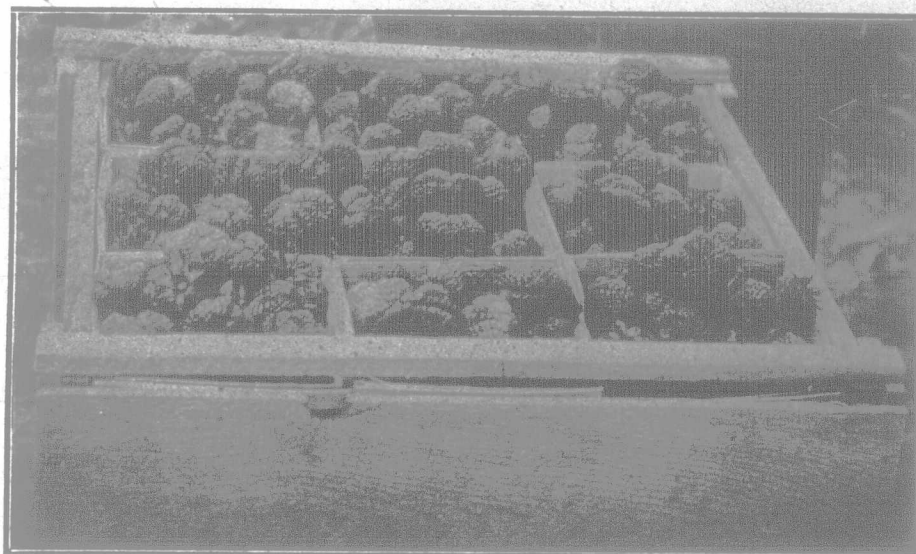
What Prof. Shaw Says.

In regard to the type of dual-purpose Shorthorns we inquired of Professor Thomas Shaw, who is a great advocate of the breed and instigator in founding the herd on the late J. J. Hill's farm, his opinion concerning the matter he stated, "I desire dual-purpose Shorthorn bulls that show good fleshing properties as shown in the form and covering. They should be equal in size at least to the beef bulls, but it is not necessary, though probably desirable to have them of the same thick and blocky form. The outstanding characteristic of the bulls as contrasted with beef bulls is that they are a little longer in the head and neck, not quite so wide, and a little longer in the limb. They have rather more easy movement, and the difference is less relative than between the milking and beef females. The main resemblance of the bulls to the dairy type is in the length of body, but this must not be carried too far." In reference to the females he stated, "The dam should be less massive than the dams of beef type. Should resemble the cows of the dairy type mainly in length of barrel, and moderate length and lightness of the neck. They should not be sharp at the withers or spinal column, or unlevel above the hips, or light in the thighs as in dairy cattle. They approach more nearly if anything to the beef form than to the dairy, and yet there is an appearance that indicates sure breeding qualities, more surely than in the case of the very compact beef conformation. The spring of rib is rounder than in dairy cattle."

The general outline of dual-purpose type no doubt emerges from Prof. Shaw's experience in breeding dual-purpose Shorthorns, and of seeing some of the most notable individuals of the breed. Other questions asked, to which he replied, are as follows: What production would be considered commendable in dual-purpose Shorthorns, and yet with beef qualities retained? "6,000 pounds a year up to say 8,000 pounds are quite compatible with splendid beef production. I do not think the aim should be made to carry the production higher in an average herd. We do not want straight dairy

Shorthorns. I deprecate the name." Is it not true that the greater the production the nearer the cow approaches dairy type? "It is generally true that wherever a high production in milk is sought there is a tendency to swing to more prominent dairy form, but this is not true where only good production, say 6,000 pounds a year is sought." Under what conditions are dual-purpose Shorthorns suitable? "Wherever there is a desire to produce beef on the average farm along with milk. These go splendidly together under conditions of high-priced labor and land." Would an intelligent farmer, living near a dairy market find dual-purpose Shorthorns to his economical advantage in preference to a straight dairy type? "Unquestionably so, unless he has a special market for a specially prepared dairy product. The increase in meat in the future must come from the average farm." Is it true that in Great Britain farmers near dairy markets supply milk from dual-purpose Shorthorns, or do they approximate the straight dairy type? "Nearly all the farmers in Britain cling to the dual type, but a few breeders seeking extraordinary milk records are getting nearer to the dairy." Would it not be to their economical advantage to use a dairy breed where greater production could be secured? "I do not think so, for I believe they make as much profit relatively from the beef as from the milk." Is it probable that the average breeders of dual-purpose Shorthorns can breed intelligently, maintain the type, and increase the product of both meat and milk? "Unquestionably so. Dual inheritance from great ancestry is as true as any other kind of inheritance. The men who have said otherwise did not know whereof they were speaking." Have we on the American continent the foundation stock for dual-purpose Shorthorns? If so, where, and if not, where can they be secured? "We have some in the United States, but not nearly enough. We are rounding them up. We must import freely from Britain after the war. In Canada I think they have relatively more such material than we have on this side of the line."

Prof. Shaw is an intense dual-purpose Shorthorn enthusiast. He was instrumental in forming the American milking Shorthorn Association which has for its purpose the encouragement of breeding Shorthorns to measure up



A Crate of Glen Mary Strawberries.

The moist weather of early summer brought forward a good crop, but the recent dry spell rather curtailed the production.

to a high standard in the production of both meat and milk. It possesses a separate herd book from the American Shorthorn Association which corresponds to our Canadian Association. The basic reason for this new association was due to the fact that the established Shorthorn Association did not give sufficient attention to dual qualities, but only encouraged the production of beef types. However, of recent years the American Shorthorn breeders, as also the Canadian, have recognized the great field for the dual purpose, and by instituting the record of performance are endeavoring to increase the milk producing proclivities which had in the past been neglected. In Canada the same revolution in many of our breeding establishments is occurring through being encouraged by the Canadian Record of Performance tests and backed by the farmer's sympathy. A new association for promoting dual-purpose Shorthorns in Canada would seem unnecessary providing the present Shorthorn Breeders' Association give encouragement to the dual type. Marked progress has during the past three years been made in this respect among Canadian herds. There are many, especially in Ontario, and a few in the West who are breeding for both meat and milk, and they find little difficulty in disposing of for breeding purposes all they can produce. Since the farmers of the country desire better milking qualities and are likely to base their selection for a time on the same, some of the breeders will undoubtedly promote heavy production in order to secure the trade. They may do this at the expense of beef qualities, trailing the Shorthorn to the extreme in dairy type. It would be well for the farmer when purchasing, to enquire not only concerning the milk records, but also the type. Usually great records are associated with dairy form which has no place in a dual-purpose herd. We desire the highest possible production in keeping with a dual type. We desire a cow that can not only give good yields but can give good account of herself at the block and can raise a steer that can do so. In brief, one cannot expect the same high production as in dairy breeds nor the

extraordinary steer as in the beef breeds, but rather moderate merit in both.

While on the farm of the late J. J. Hill there are dual-purpose Shorthorns with a long ancestral line of dual breeding, we in Canada are largely making our foundation on the breeding already in the country which has not become denuded of deep-milking tendencies. It will take time to fix the type which no doubt will be aided by importations. The advancement made will depend upon the breeders' art to combine milking and beef qualities to a higher and still higher degree within the herds they are constructively breeding.

POULTRY.

Crosses to Get Big Chicks.

EDITOR "THE FARMER'S ADVOCATE":

Having read with interest the letter in your paper some time ago on Indian Runner Ducks, I was pleased with the later letter replying to or commenting on the first one. I agree altogether with the second writer and think there is nothing like the Pekins. I was offered settings of Indian Runners for nothing this spring, but refused them, preferring to keep only our own breed, which is Pekins, and which has always given the best of satisfaction.

I would like to give my experience with raising chickens for market. We have been keeping pure-bred Black Langshan roosters and have six of the hens this year, but intend keeping only two hens in the following years so as to keep ourselves with pure-bred male birds. Some people claim that the Langshans are not good layers, but our six this year have laid more, according to numbers, than the remainder of the flock, which are Brown Leghorns, a few Minorcas and Rocks. The six have been laying almost steadily for months now, but a couple of weeks ago one started to cluck so she is set on duck eggs. Two of the six were very late, last-year chickens. However, the Langshan chickens do not mature as quickly as some other breeds, and as we sell all the cockerels in the fall it is weight we're after, so have been trying to discover which breed crossed with the Langshan males produces the heaviest chicks by fall. So far, and we've tried several breeds, we find that the Langshans crossed with White Rocks give the plumpest, heaviest and cleanest-looking, well-fleshed chicks. The chicks are nearly always white with feathered legs, and although they may look smaller than some of the others, the weight is there every time. The Rocks are not the very best of layers, at least we find it so, and we are going to try Rhode Island Reds. We find that by crossing them we get much heavier chickens than by keeping Rock males or roosters of any other breed.

We find the raising of chickens and ducks a very interesting and profitable work. One fall we had over 200 chicks and 57 ducks all raised the old way, by hens. When the spring and nice warm weather is here we seem rather lost until we have a flock of the little fowl. However, there are times when one is almost totally discouraged with losses in different ways, but when it is all over and we look back we think it hasn't been half as bad as we thought at the time. There are so many things on a farm that there are nearly always losses occurring.

Northumberland Co., Ont.

MARION.

Duck and Turkey Ailments.

EDITOR "THE FARMER'S ADVOCATE":

1. Would you kindly advise me, through the columns of your paper, concerning the following: Ducks about four weeks old, apparently thriving, ate heartily of a feed of one-third shorts and two-thirds bran mixed with water till it was crumbly. Next morning 50 per cent. were found dead with necks full of undigested food. Ducks had soft water to drink but not to swim in, they had plenty of sand. Was the ration fed the cause of death? Kindly give a suitable ration for growing ducks.

2. Turkeys—Turkeys about three weeks old, fed breadcrumbs dampened with sweet skim-milk, with dandelions and onion tops for green feed, suddenly seem to have cold in their heads, first closing one eye, finally both eyes are closed with swelling. What is the cause of this disease? Would the disease be blackhead? Would you give a preventive? These turkeys were kept dry and clean.

SUBSCRIBER.

Ans.—1. The ration given would not be considered a good one for ducks, but, on the other hand, there is nothing in it which would cause such a high