Selecting Sires for the Dairy Herd

THERE is no more difficult problem in farm live-stock breeding than the dairy sire, and when one of the principal aims is dual-purpose character the difficulty is increased rather than diminished. The choice of the sire is, of course, a matter of cardinal importance and of very great difficulty in all stockbreeding enterprises. There are many characteristics to be looked for in all sires according to the requirements of the breed, but in most instances all the qualities that meet the eye are as easily discernible in one sex as in the other. In the case of dairy cattle, however, milking character difficult to detect with certainty in the female is much more obscure in the male.

Beef is as easily discerned in the bull as in the cow, mutton and wool in the ram as in the ewe, bone, action and symmetry in the stallion as in the mare, fleshing and form in boar as in the sow, and it is an axiom of stockbreeding that like tends to produce like. In building up the accumulation of merits that makes for prepotency and consistency we can examine, as far as our knowledge goes, the merits of all ancestors, but in the case of dairy cattle we have gaps all along the male side, including the bull, whose value we are trying to assess. For pedigree knowledge of the bull's worth for milk we must rely almost entirely upon the merits of the cows from which he is descended.

Milk Records.

Milk records have, of course, helped to simplify the task of choosing a bull for a dairy herd, but it has also introduced dangers that are very real. It is common knowledge, indeed general experience, that a heavy milking cow does not always produce heavy milking daughters. We may have a fifteen-hundred gallon cow, some of whose daughters become her equal or even superior in milk production, while others, perhaps full sisters, cannot be prevailed upon to give half of this amount. We may even have cows, all of whose daughters fall short of them as milkers without any adequate explanationn being discoverable in the breeding on the sire's side.

As daughters of a heavy milker may fail to inherit their dam's milking character, or may inherit it in varying degrees, so we may assume that her sons will vary. Indeed, no guessing is required, for it is every-day experience that they do. In the female the lapse is detected, but we have to wait for another generation to discover it in the male. Milk records are a great assistance, but they do not provide data from which infallible deductions can be drawn.

Blind Reliance on Records.

It has been mentioned that a real danger attaches to milk records, and this is to be found partly in a blind faith that a bull well bred for milk must produce heavy milkers, but chiefly in making the scales the supreme test, or worshipping at the shrine of exceptional records. In the breeding of pedigree-cattle breed character must remain one of the primary considerations, and in the breeding of all dairy cattle form, stamina, and constitution cannot be ignored. It happens with all breeds that some of the heaviest milkers are in themselves moderate animals, judged by every standard except milk production, and it may be claimed that in the dairy herd milk production is almost the only thing that matters. Prolonged and persisent milk production is, however, largely a matter of stamina, stamina again of conformation and conformation of consistent breeding to one standard. A blind trust in milk records must lead quickly into degeneracy, and prove a handicap rather than assistance. Because it is the object to breed heavy yielders it does not follow that the best results will always be obtained from breeding from those with the greatest yields to their credit.

The Breeder's Problem.

The breeder's problem is how best to combine breed character, conformation, stamina, and yielding power. What particular characteristic should he build upon? Should he start with heavy yielding capacity, and try to graft the others on to it, or should he begin with the character and conformation, and work towards the yield? I do not think that there can be any question about the latter being the safer course. Character and conformation are much more difficult to regain if they are lost, and when they are lost it is only a matter of time, and generally a short time, before milking capacity goes with them. We do not require to go to poor milkers to obtain the necessary character and constitution, and heavy production does not necessarily mean that they must be absent. If we can get all the required qualifications in one animal it is likely to prove the one we are looking for, and if it transmits all its merits it certainly is. This combination, however, is so rare that it is negligible, and it is the safer plan to look first for primary merits, and take as much as we can of the others.

Success in dairy cattle breeding is founded upon constitution. Heavy milk production is a severe tax on a cow's system. No cow with a weak constitution can continue giving very heavy yields, heavy according to her size, but in the absence of cast-iron stamina she may ruin such constitution as she has. It is quite possible and very common for a cow to have milking character beyond her constitution, with the result that she and her race fade away. The use of a bull from such a dam can only end in disaster.

In the early days of milk recording one frequently heard the objection that it would destroy the capacity for good judgment, which would decay owing to disuse, but so far from this being the case milk records increase the field for the exercise of sound judgment. They supply more precise information along one particular line, so that the breeder instead of guessing at certain things has trustworthy data to go upon. He does not find matters settled for him, but only obtains facts to help him to arrive at a decision.

Analogy with Laying Poultry.

There is a fairly close analogy between laying poultry and the dairy herd. In each case the return comes through an essentially female-function. In both cases a sire's value can be gauged only by the performance of his daughters, but in poultry breeding the returns come much more quickly, so

that breeding experience accumulates more rapidly. It has been found in poultry breeding that the big layers are seldom bred from stock with extreme egg records. The tax upon the constitution of the heavy layer is similar to that upon the constitution of the heavy milker.

Now all this might be taken to point to heavy yields in dairy cattle as a mistake. Far from it, for heavy yields must be the aim, and the only ultimate aim, in the breeding of dairy stock where dual-purpose character is not a plank of the breeders' platform. What I desire to emphasise is that the desired yields cannot be attained and retained without due regard to the constitution and stamina of which vigour is but a sign.

Importance of the Udder.

There is another fault often seen in heavy milkers—a badly shaped udder. Indeed, many of our heaviest yielders have rather atrocious vessels. What, then, is the sense of striving after symmetry and shape of bag when the shapely vessel is outstripped in milk production by the ugly, pendulous, badly-balanced, split-up and windy-teated vessel? Here again, however, we have to look to the future rather than the present. A good level vessel is much more likely to wear well, and is less liable to the ills that udders are heir to. The sloppy, pendulous bag is more liable to injury, and the coarse teats cost much more to milk. Incidentally easy milking does not, perhaps get all the attention it deserves in these days of high wages; a hard milker that keeps a man a few minutes longer at every milking brings a considerable bill against herself in the course of a year. The shape of the udder is not a fancy point set up against utility qualities. The stockbreeder has to wage a constant war against degeneracy and to the correction of faults—faults that in moderation are not a serious blot on the commercial value of an animal, but that if allowed to develop unchecked would ruin any race of cattle. There can be no question that the sire is a very important factor in determining the shape of the udder, and a son of a cow with a bad udder is not likely to give satisfactory results even if the dam's record is exceptional.

Breed Character.

The maintenance of breed type and character sometimes involve points that it is somewhat difficult to separate from the fancy, but one must always be careful before treating lightly any well established breed characteristics. One of the faults we have to guard against in all breed is degneracy into mongrelism, with the loss of the prepotency built up by generations of careful breeding. Breed type is an important foundation in breeding for the future, and in maintaining its standard, and is an elementary factor that no breeder can afford to neglect. Indeed, in pedigree breeding it must be the foundation upon which all is built.

In the selection of the stock bull the breeder of dairy cattle has to study breed type, character, form, constitution, and pedigree. He must get not only a good bull, but one breed from good stock as far as he can discover. He must get the best milk records in the immediate dams he can obtain, combined with those other qualities, and even so bulls will be found that fall much short of expectations. This failure of pedigree may sometimes be apparent in the beef male when it is hidden in the dairy-bred bull. The supreme difficulty is that the breeder has to discover it in the failure of his stock. He may have suspicions when heifers have reached a year or so of age, but he has to wait until they have calved before he feels even fairly certain, and until the sire's daughters have reached second-calf stage, before he can be dogmatic. In other words, no one can speak with certainty about the dairy sire until he has reached five or six years of age.—*The Farmer & Stock-Breeder and Agricultural Gazette*, Vol. XL., No. 1894