Get the herd you want via selection

By HEATHER SCHLESSER

REPRODUCTIVE efficiency is paramount importance to the success of a dairy operation. Dairy farmers are often so concerned with getting animals breed that they neglect the genetics of the bull, or leave bull selection solely in the hands of the breeder. However, picking animals for your farm is one of the most important decisions you can make to improve long-term profitability. Proper consideration to who will become parents and which replacements you should keep are important to giving you the genetics you want. This column should help you understand how to position your breeding program for success.

Select traits

There are many characteristics to consider when selecting who should become parents, or how many offspring an animal should have. They range from production traits, such as milk yield, fat and protein percent; to type traits, such as feet and leg conformation. Only you can determine which traits are important for your herd. Once you have identified those traits, select animals that will help you achieve your goals.

How do you determine which animals to keep and ultimately breed? It is important to look at information available on the individual animal and also its relatives. Individual information will tell what traits the animal exhibits. Pedigree information will tell the genetic stock from which the animal is produced. Data on siblings is the most valuable because this tells what has been potentially passed down to the individual. The best information is gained when the animal has offspring, because this shows what the animal is capable of passing on to future generations.

Genetic potential

Genomics is a new tool that allows producers to determine the genetic potential of an animal well before it reproduces and has its own production records. Genomics has the potential to evaluate 50,000 genetic markers at one time. When a genomics estimate is created, pedigree information, estimates of merit from genetic markers, the animal’s own performance records and progeny’s performance records are taken into consideration.

Once animals have been selected, you need to determine which animals to breed together. Remember that not all bulls are created equal. Choosing a bull based on the cost of his semen does not take into consideration your selection criteria. The bull you choose should depend on your selection criteria instead of the cost of the semen. Knowing which bull to select takes time and careful analysis. Giving your AI technician a dollar range to choose does not guarantee he is getting bulls that fit your herd. You may actually be getting bulls that are harder on the pocketbook and further from your goals than you expected.

Some helpful hints to consider:

1. Purchase animals that are close to the kind of animal eventually desired.
2. Use all the genetic tools which identify sires most likely to produce desired offspring.
3. Furthermore, use selected sires, evaluate the offspring and make adjustments where needed.
4. If you want to increase female fertility, this can be achieved through indirect selection for longevity or body condition score, or by direct selection of daughter pregnancy rate.
5. If you want to increase fat and protein percentages, select animals with higher milk yield. While it is true that one gets paid based on percentages of fat and protein, the milk price is absolutely meaningless until you multiply by the number of hundredweights sold.
6. When using young sires, use a few units of semen from many different bulls rather than many units of semen from any one bull.

Schlessner is the Marathon County Extension dairy agent.