

**Biosecurity and the Purchase of a New Bull**  
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Most cattle diseases are introduced onto a farm by the purchase of new cattle. Unlike swine diseases most cattle diseases are not easily transported by traffic from people or vehicles. The most common herd addition is the purchase of a new bull. While this is a necessary step to maintain the herd and improve the genetic base, it is wrought with danger to herd biosecurity and reproductive efficiency. This column suggests a step-wise plan to introduce a newly purchased bull into your operation.

As with most changes, **the first step is to plan ahead. The primary reason to purchase a new bull is not just to get cows or heifers bred, but also to produce a product for which the market is willing to pay a profitable price.** The plan for this purchase should include a long-term genetic plan for your herd. The first year you own a bull 50% of the genetics of the calves is from your original cowherd. If you save heifers from that cross and breed them to a second new bull, then only 25% of the calf crop's genetics are from your original cow herd. If you save heifers from that cross and breed to a third new bull, only 12.5% of the calves will have your original herd genetics. Thus, with the purchase of three bulls over 5 years, you will have effectively changed the genetic makeup of the herd. That is why a careful evaluation of your marketing goals and the genetics of the purchased bull are so important. What is the "product" you are selling and for what specific traits or attributes of this product is the "market" willing to pay the highest price? If you are selling non-weaned commercial calves your products are: live calves, weight and to a lesser extent calf quality. Therefore, you should look for a bull that will give you a high weaning weight of good muscled calves with little or no calving problems. In today's market, black calves are worth more. That may mean you want a bull that will have high weaning weight estimated progeny difference (EPD), low birth weight EPD, and throw good muscled black calves. If you wean your commercial calves and background them to sell as yearlings, you will want a low birth weight EPD, high yearling weight EPD and good muscled black calves. If you maintain ownership of the cattle through finishing and sell carcass weight, you will be looking for a good birth weight EPD, high yearling weight EPD, and good carcass trait EPDs. You must first know your market and what is bringing the best price in that market to develop your genetic plan. Information on genetic planning and EPDs is available from your extension office or your veterinarian.

Biosecurity is preventing disease from entering your herd. **The first and most important key to biosecurity is to buy from reputable sources with known healthy herds.** Insist on a health paper for each bull stating that the bull has been examined, is exhibiting no signs of disease and that there is no history of disease problems on the farm of origin.

Reproductive efficiency is defined as the ability to settle a large number of cows in a short period of time. **Each year about 11% of all yearling bulls and 3% of all mature bulls that have a complete breeding soundness examination are found to be infertile or sub-fertile.** EPDs and a genetic plan do not mean much if the bull cannot settle a large number of cows in a short time. Breeding soundness examinations are done to protect the purchaser of the bull. Just because we can get live semen out of a bull does not make him a satisfactory breeder. A sub-fertile bull may settle some cows but lengthen

out your calving interval. You should require that any bull you purchase have a signed certificate stating that the bull had a good physical examination including vision, mobility, palpation of the internal sex organs and testicles, and general health. A good breeding soundness evaluation is a diagnostic procedure that includes testicle measurement and evaluation of the semen for motility and morphology. **You should also receive a signed certificate** stating that the bull passed all three areas and classified as a satisfactory breeder.

**Bull purchases can be financially rewarding if we follow our genetic plan and biosecurity program, and require an accurate breeding soundness evaluation.**