

# How Far is Too Far with a Mixed Breeding Program?

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We've all heard the horror stories of purebred dogs and their health problems while mutts seem to live forever. Obviously if you are a purebred breeder, you have an incredible amount of responsibility to uphold the characteristics of a breed. However, if you are a typical commercial cattlemen let's take a look at how these thoughts can translate to our cattle herds.

## Why Crossbreed?

Crossbred cattle can have some significant advantages over the use of one breed in your cattle. The two main benefits include hybrid vigor as well as combining the best strengths of the various breeds used to form the cross.



- Hybrid vigor, also known as heterosis, explains the superiority in performance of the crossbred animal compared to the average of the straightbred parents. Hybrid vigor is most noticeable in low heritable traits, such as growth rate, and reproductive efficiency.
- The most important advantage for crossbreeding is found in the crossbred cow. Maternal heterosis results in improvements in fertility, calf livability, calf weaning weight and cow longevity.
- Combining strengths between breeds is also an important reason for crossbreeding. For example, British Breeds (Angus & Hereford) are typically high in marbling potential where Continental breeds (Simmental, Charolais, Gelbveih) have offspring that have desirable levels of marbling and yield grade. Knowing the advantages of the breeds before you breed is important.
- True crossbreeding is a deliberate decision to produce cattle that have a known genetic makeup to pass genetics from parents to produce a calf with desirable characteristics.
- Unfortunately, it is hard to keep a consistent ratio of breeds in a beef herd, especially a small one. Take a "Black Baldy" for instance, is a 50/50 cross of Hereford and Angus parents. To keep a consistent ratio in the herd, you must have a terminal program in which you keep no offspring back in the herd.
- When crossbred offspring are rebred, the next generation of calves will display characteristics anywhere along a scale between the two parents.

## Mixed Breeding

Mixed breeding is similar to crossbreeding, combining multiple breeds, but with one major difference: there is no strict adherence to breed ratios within the herd. Managing a mixed breed cattle herd is pretty simple, typically keeping whatever replacements you choose and running cattle as a single herd. However, the calves will have varying traits, body sizes, growth rates, and environmental adaptations. The genetic randomness of a mixed breed herd can create a lot of inconsistency in the calf crop. Additionally, the hybrid vigor drops significantly after the first generation cross. You can still breed to gain desirable genetics, however any typical bump in pounds for calves or maternal traits are typically diminished after the initial cross.

## Why does it matter?

This does not mean that having a mixed breed herd is "bad." However, you can make more informed decisions if you know primarily the genetic makeup of your cow herd. Knowing the major breeds of your mixed breed cow herd can definitely have its advantages. The biggest advantage comes in making herd sire selections. Knowing what the majority of your cattle lack as far as desirable characteristics should drive your bull selections. Remember that a bull is only half of the equation and that your cow herd is a very important part of producing desirable calves. Additionally, having a uniform calf crop is desirable, especially to those marketing calves off the farm. Having a consistency to a calf crop year after year can only build the reputation of your herd and also lead to a desirable product. If you would like more information on developing a crossbreeding program or information on selecting a bull to meet the needs of your cow herd, please contact your local Extension Agent for assistance.

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# Extension

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## Cattle Call



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### FALL PASTURE MANAGEMENT - *Carl Pless, Livestock Agent, Cabarrus County*

Grazed forage is the most economical source of nutrients for ruminant animals. Given sufficient moisture, cool season grasses can provide excellent quality feed for cattle. Cool season grass, including fescue and orchard grass can benefit from a 30 to 50 unit application of nitrogen if soil moisture is adequate or rainfall is realistically expected.



Spotted spurge is growing in some pastures and hay fields. If spurge is consumed by cattle when grazing or eating hay containing spurge over an extended period of time cattle can become sick and eventually die. 2,4-D will not control spotted spurge. Banvel, Crossbow, Cimarron or GrazonNext can control spurge.

Fall is the time to reseed cool season grasses in pastures and hayfields if stands have been depleted by dry, hot weather or overgrazing. Typically we expect to receive adequate moisture and cooler temperatures in late fall which can help achieve success when establishing new forage stands or over-seeding old ones. September and October are usually excellent times to establish or renovate pastures.

Soil analysis can be a useful tool for determining the need to add lime and/or fertilizer. Soil tests in North Carolina are still free to producers from April through November but there is a \$4.00 per sample fee from December through March. Soil test kits are available at the Extension Office.

Clip or graze pastures close before reseeding. Seed germination and emergence and stand establishment are most successful if there is light to the soil surface. The use of a properly adjusted sod drill can give accurate seed placement and good seed to soil contact without planting seeds too deep.

Adding clovers to forage mixtures will improve forage yields and quality and lessen nitrogen requirements. Broadleaf herbicides will kill or injure clover, so always control weeds before planting legumes. Many herbicides have plant back restrictions and clovers are sensitive to most of them, so read the label and act accordingly.

Forage eating insects, such as grasshoppers and crickets can severely damage seedlings as they emerge. In some instances, burning down the existing vegetation before reseeding may be advisable or one may want to wait until a killing frost reduces the insect population. However, the earlier a stand is established, the more time it has for root development and the higher the production the next spring.

Managing a new or reseeded stand correctly can increase the possibility of a long lasting, productive stand. Cattle should be rotated off a new stand until there is 6-10 inches of growth. What you have above the ground in blade growth is what you have below the ground in root growth, so allow the root system to develop properly.

Fescue can be stockpiled for grazing after frost and freezing. Total dissolved solids can increase greatly with cooler weather conditions. Rationing the amount of area available to cattle by the use of temporary electric fence rather than allowing animals to trample over a large area is a tool that many cattle producers are using to obtain greater utilization of available forage.

Seeding a cereal grain such as rye, triticale, wheat or oats and or ryegrass this fall can provide late fall, winter and early spring grazing. Early seeded winter annuals provide the highest yields. Adequate soil moisture is necessary for establishing a good stand.