

# Practical Ways to Improve Your Herd's Feet and Legs

by Harold Bertz, Director of Business Development

**One of the great parts of my job with Red Angus is the opportunity to visit with progressive cattle breeders in all parts of the United States. This has afforded me the chance to view thousands of cattle in hundreds of unique environments, each with their own challenges. From the coastal plains to the high desert, the feedlot in western Kansas to the slatted-floor building in Iowa, every environment requires different management and presents concerns for cattlemen and women. One common denominator that should be present in every environment and every management system is the emphasis on correctly designed feet and leg structure.**

As seedstock producers, our responsibility to the beef industry to provide correctly designed cattle is paramount. Sound bulls produce sound steers that gain faster spending less time lame, and heifers that make replacements that stay in the herd longer. These characteristics translate to real dollars and increased profitability for all segments of the beef industry thus increasing the demand for a seedstock producer's product – bulls.

As I travel the country and ask commercial producers what Red Angus can do to improve their cattle, the resounding response is, "Better feet and legs!" At sales this spring, I did notice several bulls with claw issues, pastern angle problems and general soundness issues. They were the exception, not the rule, but they were a potent reminder that we still have work to do to meet our commercial customers' demands.

The good news for seedstock producers is these characteristics are moderately to highly heritable. If we maintain diligent selection on traits in which we notice problems, significant improvement will be made in a very short time. Table 1 outlines heritability of traits and their correlations with herd life. Though using information in dairy herds, this information can prove very valuable to beef producers.

These heritability estimates were used in relation to lameness in dairy cows and correlated to determine their effect on life span in the herd. We can use this information to determine the importance of these traits to our own herd and our commercial bull customers' herds.

Also significant is Red Angus' commitment to assisting members in improving these important characteristics. With a grant from the Red Angus Foundation, Inc., work is underway at Kansas State University to gather phenotypic data on hoof, foot and leg conformation in Red Angus and Simmental cattle. The project aims to develop an EPD for a range of foot and leg conformation traits that may aid producers in selecting sires that produce sounder progeny. Research activities are planned to help understand the association between feet and leg conformation, culling and longevity data. K-State research assistants will collect hoof, foot and leg phenotypes on more than 4,000 animals for use in the analysis.

**Table 1:  
Foot and Leg Heritability and Genetic Correlations with Herd Life**

Trait	Heritability	Genetic Correlation with Herd Life
Feet and Legs	0.21	0.52
Foot Angle	0.13	0.41
Heel Depth	0.10	0.44
Bone Quality	0.28	0.45
Rear Legs – Side View	0.26	-0.02
Rear Legs – Rear View	0.13	0.67

(Schaeffer 1998; Boettcher et al. 2000; Fatehi and Boettcher 2001)

Work to date has included the development of a comprehensive scoring and data collection system. Traits of the front and rear foot and leg evaluated include hoof angle (at toe), heel depth, hoof or claw shape, and knee or hock angulation from two dimensions. Also involved in this initiative is the American Simmental Association.

As we move forward with breeding decisions, bull selection and culling, and female retention, let's put some extra thought into correct feet, leg, and hoof structure. Feel confident that progress can be made quickly and the Red Angus Association of America is working hard to bring you tools that will assist you in this process. Our customers are counting on us to continue to bring them the best, most accurately described cattle in the industry – Red Angus. We won't let them down!

