

Put the Pressure on Your Cows for Performance¹

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Performance in your beef cow herd is vitally important; therefore, its never too late to make sure the cows that stay in your herd are there for good reasons. Although the herd bull has a greater impact on the entire herd, the individual cow remains important. Applying little or no selection pressure on females in the herd lowers overall herd productivity. The cow herd should be evaluated each year on a routine basis; culling criteria should include at least the following three priorities

Reproduction – Purebred cows *must* calve yearly and selection should be for cows calving early in their life (two years of age recommended) and those that rebreed early in the season. Retain enough heifers to truly cull the cow herd. Most purebred herds will need to keep a minimum of fifty percent of the heifer calf crop as potential replacements. Yearly calving interval is also important. Additionally, emphasis on reproduction should include culling cows with a history of assisted births, poor udder and teat structure, and other factors that may detract from a convenience trait emphasis for cow performance.

Functionality – Cows should maintain the ability to reproduce and *function* in calf rearing to remain in the herd. Functionality loss refers to any aspect that reduces the ability of the cow to perform.

Primary factors include age (longevity), physical defects, disease, accident or injury. Often, udder related problems are ignored, especially in purebred herds. While fertility is related to functional efficiency, other aspects are important, as well, including vaginal prolapse, joint and feet problems, bad disposition, assistance required during birthing, and illness/injury. Depending on severity or frequency, these conditions either alone or in combination with each other are justification for culling.

Production – Performance records and genetic evaluation through the application of EPDs (Expected Progeny Differences) are important selection tools. Cows and heifers that perform poorly compared with contemporaries should be culled. Frequently, cows are retained even if they are poor milk producers, and thus typically wean lighter calves because herd reproduction reflects greater productivity. Since the total cost of developing heifers is great, only reproductively sound cows should be kept. Resist the assumption that a poor-producing purebred cow is superior to most commercial cows. Often, the average commercial herd performance is equal or superior to the performance observed in many purebred herds. Finally, management of cows should be such that

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supplements are used only when necessary to maintain production. Herd genetics should perform in forage environments with minimal other inputs. Young heifers and bulls may require extra management and nutrition in order to meet your production objectives.

Productivity Outline of Economically Important Traits of the Cow

I. Reproduction

- Heifers should calve at 2 years of age and raise a calf to weaning
- Calving interval should be no more than 365 days
- Cows should reproduce with a minimum of supplemental feed
- Select heifers and cows that breed/rebreed early in the breeding season (open cows lose 15-20% of their lifetime production value each year they are not bred)
- Market open cows and replace with genetically superior bred heifers or cows with known genetic and health background
- Retain open cows in purebred herds only if they are young (less than five years of age) and of significant monetary value

II. Functionality

- Longevity is *important*: Soundness of mouth, feet, legs, eyes, and udders indicate potential for long, productive life. Individual cows with a history of prolapse, abnormal calving difficulty, or other physical impairments that have management costs greater than the herd average to produce and wean a calf should be replaced
- Compare the opportunity costs of developing a replacement female against the market value of the open

cow. Any special attention needed to a cow (convenience factors) should be weighed against a bred replacement heifer in potential value

- Cows lacking functional abilities should not produce breeding bulls for either the commercial or purebred segments

III. Production

- Cows should milk sufficiently to wean a calf at the herd target weaning weight
- Use superior sires (AI or performance tested natural sires) to enhance the genetic potential for growth and performance
- 87.5% of the genetics in a herd where replacement heifers are produced can be attributed to the last three sires or groups of sires used – select bulls for maternal traits
- Culling decisions can be made with consideration to weaning weights since those are highly correlated with cow productivity
- Generate revenue from the cow-calf unit each year: value in the calf or in the form of salvage value of the cow
- Keep accurate records to objectively evaluate individual cow performance: Birth weights, weaning weights, yearling weights, and EPDs (especially in purebred herds)