

Productivity Outline of Economically Important Traits of the Purebred Female

I. Reproduction

- * Heifers should calve at two 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.
- * Selection pressure should be toward heifers and cows that breed/rebreed early in the breeding season.
- * Open cows will lose 15 to 20% of their lifetime production value per year that they are not bred.
- * Open cows are best sold in a commercial setting and replaced with a bred heifer or cow with known genetic and health background.
- * Open cows in a purebred setting may justify retention only if they are young (less than five years of age) and of significant monetary value and true justification of why they are open as a management result.

II. Functionality

- * Longevity is extremely important—soundness of mouth, feet, legs and udders indicate potential for long, productive life. Additionally, cows with a history of prolapse, or abnormal calving difficulty or other physical impairment that increases management needs and costs in producing a calf above the norm should be considered for culling.
- * Weigh opportunity costs of developing a replacement female against the value of the open cow. Any special attention to a cow (lack of convenience) should also be weighed against a bred replacement heifer in potential value.
- * Cows lacking functional abilities should not produce breeding bulls for the commercial industry.

III. Production

- * Cow should provide sufficient milk to wean a calf at the target weight established by the management.
- * Genetic potential for growth is important. This can most effectively be achieved through the use of superior sires.
- * 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. Bull should be selected for maternal traits.
- * Weaning weights are highly correlated to cow productivity; therefore, culling decisions can be based on weaning weights.
- * ACCURATE records are required for cow herd production evaluations.
- * Ideally, there should be some revenue generated from the cow-calf unit each year even if the only revenue available is the salvage value of the cow.
- * Observe the functionality of the cow's offspring. If she consistently produces progeny with functional problems, such as bull calves with pendulous sheaths, cull the cow.
- * Production records including birth weights, weaning weights, yearling weights, and attention to EPDs are important tools to enhance selection effectiveness.

Selection must be applied in the purebred herd for cow performance. Annual evaluation at weaning time is recommended with priority emphasis on reproduction, functionality, and production records. Special attention to those factors that relate to convenience in cow herd management is needed. Additionally, purebred breeders should manage the cow herd as a commercial entity as much as possible. There is value in the old question, **“If the registration papers were lost, would you keep your cows as a commercial herd?”** ■