



# HIGHLAND CATTLE: ANCIENT BREED MAKES A COMEBACK

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## Prepare replacement heifers for long run

George Perry South Dakota State University Jun 19, 2020

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A producer applies a breeding indicator, a self-adhesive patch used primarily for heat detection. Breeding indicators can help producers and their reproductive specialists make smart cow-side decisions.

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George Perry South Dakota State University

The abilities to breed and calve out replacement heifers early are important indicators for how long heifers will stay in a cow herd. Heifers also need to be fully developed heading into their first breeding seasons to ensure they'll have longevity and pay for themselves.

When all the costs of developing a replacement heifer are taken into consideration, it's

when all the costs of developing a replacement heifer are taken into consideration, it's critical they remain in the herd as long as possible. Data suggests it takes about five calves to pay for a replacement heifer's development costs. Keeping heifers in the herd while maximizing profit starts by knowing when a heifer is ready to breed for the first time.

### Hit breeding-weight benchmarks

The long-stated gold standard is for heifers to reach 65 percent of mature weight by the time of breeding. However more recent research has revealed heifers can reach puberty at just 55 percent of mature weight. The risk of using the 55 percent benchmark outweighs the reward.

If the goal is to breed more heifers early, stay conservative. Use the 60 percent to 65 percent of mature weight as the benchmark. Greater weights give producers insurance. Heifers have had time to develop and are more sexually mature.



An emphasis on nutrition is rightfully put during the critical phase between weaning and breeding when heifers are adding size to reach the 65 percent mature-weight threshold. It's also vital to ensure heifers receive adequate nutrition following breeding.

### Know when heifers are cycling

When heifers have reached their weight goal there are a number of options to determine if heifers have gone through puberty and can breed.

Reproductive-tract scoring is a common method used to verify if heifers are pubertal by palpating the reproductive tract and ovaries for size of follicles and to determine if a *corpus luteum* is present. A trained technician or veterinarian can perform that procedure, but it can be cost-prohibitive with charges ranging from \$3 to \$5 per heifer. If a producer is in a region with a great demand for veterinary services, scheduling may also be a challenge.

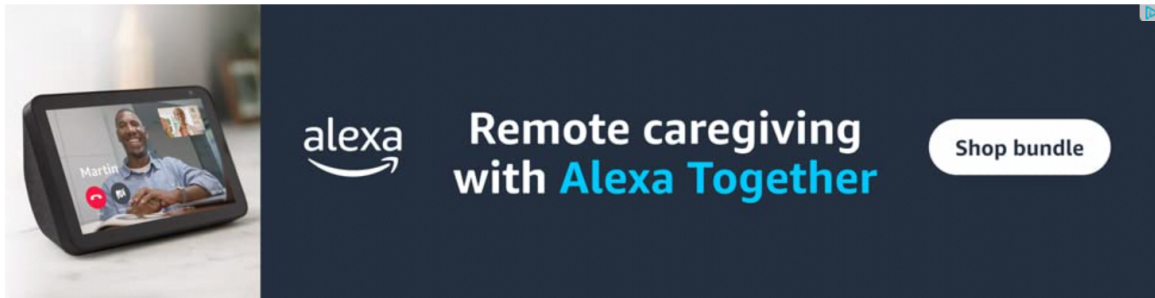
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Another way to identify pubertal heifers is to spend time watching them daily. But watching animals takes time and producers can't watch them 24/7, which results in some being missed.

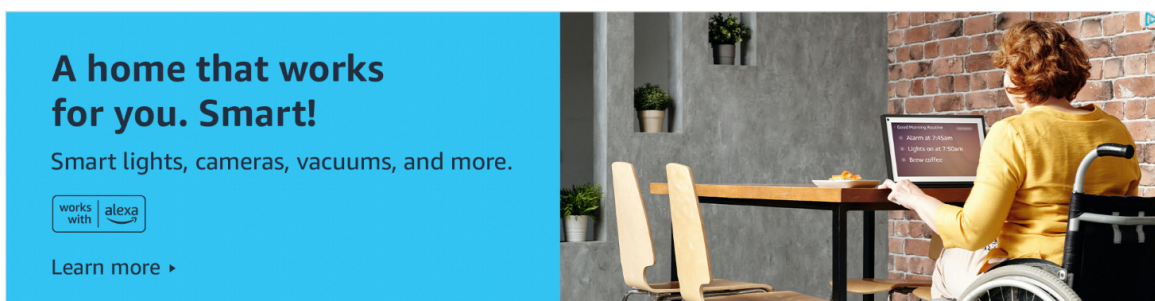


One possible option is using a breeding indicator. The most time-efficient way to identify if a heifer is cycling is to use an adhesive breeding-indicator patch. A producer puts the breeding indicator on the animal 30 days prior to the breeding season and waits until there are activated indicators, which indicate a heifer is in heat and being mounted.

Breeding indicators help visually show when heifers have started becoming pubertal by expressing estrus. The indicators are applied between the hip and tailhead. As mounting activity occurs, the patch-surface ink rubs off to expose a bright indicator color. Producers can monitor estrus activity as they have time, and they will receive a quick visual representation of when heifers are ready for breeding.

If heifers have been properly developed to about 65 percent of mature body weight, then 80 percent or more of the heifers should have activated breeding indicators during those 30 days. That will indicate the heifers are sexually mature and ready to breed.

Once a producer knows that heifers are pubertal, the producer can either set them up with a synchronization protocol for artificial insemination or expose them to a bull. Those heifers that aren't showing signs of cycling can then be sold because their odds of becoming pregnant are less.



Breed one cycle ahead



One tactic to consider is breeding heifers one estrous cycle -- or about 21 days -- ahead of when mature cows are bred.

At the point heifers are calving for the first time, they are still growing and adding more frame to reach their mature weights. Plus they're lactating, which puts additional energy demands on them. Those factors make first-calf heifers notoriously difficult to begin cycling again. Achieving a second pregnancy can be a make-or-break situation.

By breeding replacement heifers a cycle ahead of the mature herd, it allows them more recovery time after calving. Extra recovery time allows heifers to prepare for the subsequent breeding season, and it gives them better odds of achieving a second pregnancy and staying in the herd.

Overall the goal of any heifer-development program from weaning to breeding is to have animals reach maturity, cycle and maintain a pregnancy. In reaching that goal producers can recover the cost of development by greatly increasing the likelihood heifers will stay in the herd long-term.

The Vistaprint logo is a blue triangle with a white dot inside, followed by the word 'vistaprint.' in a sans-serif font. Below it, the tagline 'We print that.' is written in a large, bold, white sans-serif font.

Two bags of bath soak are shown. The one in the foreground is white with a colorful geometric pattern on the sides and text that reads 'salt + groove RELAX BATH SOAK GRAPEFRUIT'. The one behind it is partially obscured.

A blue hooded sweatshirt is shown from the front. It has a white circular placeholder on the chest with the text 'YOUR LOGO' inside.

A spiral-bound notebook is shown. The cover features a landscape photograph of a lake and mountains under a cloudy sky. The text 'Customize Yours' is visible at the top.

A stack of business cards is shown. The top card has a green and white design with a circular logo and the text 'Company Name'.

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George Perry

George Perry is a beef-reproductive-management specialist for South Dakota State University-Extension.

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