

New STAR Cattle Breed Shines During Droughts

During the worst summer heat in south Texas, Steven Lukefahr's cattle herd continues to graze, while many of his neighbors' cows seek shade. Years of drought and disappointment with other breeds led the genetics researcher and professor of animal science at Texas A&M to develop the STAR cattle breed. Combined with smart pasture management, he is able to keep cows fed for \$30 to \$40/each per year.

STAR stands for the breed's genetics, which comes from heat-tolerant breeds, Senepol and Tuli (African breeds), combined with Red Angus. Lukefahr chose the red cattle because of their lighter color, which absorbs less heat. The African breeds have glossy coats and numerous skin folds that help them sweat and keep them cooler.

"They spend more time eating grass during hot days than seeking shade," Lukefahr says.

Smaller in size, at about 1,000 to 1,100 lbs., they are more efficient, he says. They don't make excessive milk nor have the expensive feed requirements of larger cattle he owned in the past. The mothers are gentle and low maintenance. Early puberty – as early as 5 to 7 mos. – means they have gone through several heat cycles when they reach 15 mos. to improve breeding odds.

They finish out at 18 mos. on grass, and steers have carcass traits that compare to purebred Angus, according to USDA studies.

While all those characteristics are important, Lukefahr emphasizes that the STAR breed's ability to thrive on poor grass during drought is what makes them shine. Pasture management is also crucial.

"Flexibility is key in working with nature," says Lukefahr. "My focus every year is on planning for drought."

He uses rotational grazing, and when grass isn't coming back due to the drought he sells some cattle or leases additional land. Recently, when rains finally came after a long drought, his pastures returned in abundance while other pastures had nothing left to green up. He breeds his cows to calve in May so that weaning comes later after fall rains when there is plenty of grass to restore the body condition of his cows. The weaned calves weigh about 600 lbs.

Lukefahr used both AI and natural breeding to create the STAR breed, aiming for genetics that are at least half Senepol and Tuli. He sells breeding bulls for \$1,500 to \$2,000. Other animals are sold to be finished on grass. The cattle grow a winter coat to work well in colder climates, he adds. The furthest north he's sold them at this point is Missouri.



STAR cattle breed combines the heat-tolerant African breeds Senepol and Tuli with Red Angus. "STAR cattle spend more time eating grass during hot days than seeking shade," says Steven Lukefahr.

His website includes photos and information of animals available for sale.

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Foundation Helps Preserve Island Goat Genetics

Interested in helping to preserve a rare old goat breed? The Arapawa goat is thought to date back to old English goats. Researchers believe the dual-purpose breed, which lived in seclusion on an island for at least 150 years, has self-sustaining characteristics that could be valuable to other breeds.

"We've been working for about 3 years collecting semen and embryos," reports Sara Bowley, executive director at SVF, a foundation dedicated to preserving the genetic material of rare breeds.

Legend says the goats' ancestors were dropped on Arapawa Island off New Zealand by Captain Cook. Only a few hundred goats exist worldwide with only 15 breeders in the U.S. A herd of only 6 Arapawa was originally brought to the U.S. in 1994 for exhibit at Plimoth Plantation in Massachusetts.

Bucks are short and stocky, while does are fine-boned and slender. Both sexes are horned with wide variations in color patterns from solid, tan, black, white and red to belted, striped or point coloration. Coat length ranges from smooth to long and shaggy.

Bowley and the SVF are working with breeders to expand total numbers and bloodlines. They established an Arapawa breed association with Bowley serving as president. They also are working with breeders in the U.S., New Zealand and the U.K. to develop breed standards.

Bringing semen from four New Zealand bloodlines is seen as a major step in expanding U.S. herd genetic diversity. That semen has produced 4 bucks, one of each line being born at SVF. The organization is sharing the techniques they've developed.

"We are encouraging the use of AI by breeders in the U.S.," says Bowley.

Bowley is also promoting new active breeders. While there is very little breeding stock available, she encourages breeders to only sell to people or organizations interested in developing a breeding herd.

"We want people dedicated to improving and expanding the herd, not just wanting to keep a goat or two in their backyard," she says.

The SVF foundation is active in the preservation of a number of breeds. The goal is to collect and preserve 200 embryos and



The SVF foundation is dedicated to preserving the genetic material of rare breeds, including the Arapawa goat.

3,000 straws of semen per breed. If necessary, those assets could be used to "reawaken" a lost breed in a single generation. To date, the SVF has worked with 11 cattle breeds, 4 goat breeds and 10 sheep breeds. As they complete collection work on a given breed, they place animals with breeders.

"Our mission is to preserve genetic material," says Bowley.

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Elderberry Growers Cooperate To Grow

The Minnesota Elderberry Cooperative (MEC) is laying the groundwork for a new farm business they hope will spread. Their goal is to encourage similar cooperatives in other states to grow, process and promote elderberry products. Elderberry products are growing in demand for their antioxidant and anti-inflammatory properties, as well as claims of benefits to the immune system and brain function.

"Most elderberry products today are imported from Europe," explains Chris Patton, MEC. "They freeze entire clumps of berries with twigs and other materials and unripe berries. Our berries are cleaner and processed to 180°F. Most European product is dried or concentrated with the juice pasteurized. As a result, our products are better tasting with greater purity."

Patton wears multiple hats, including founding director and board chair of MEC, elderberry grower with his son Philip at Natural Kick Farms, and marketer for River Hills Harvest (RHH), processor of their elderberries.

RHH was founded in Missouri by long-time elderberry grower, promoter and processor Terry Dunham. While Dunham markets RHH products in that state, Patton markets them through a growing number of retailers in Minnesota, Iowa and Wisconsin, as well as online. Patton knows a bigger supply will be needed, but he and other growers are concerned about maintaining quality.

"We want to set up quality standards for growing, picking, processing and marketing," says Patton. "We want industry-

wide standards established that document processes and maintain quality."

The MEC is waiting for a feasibility study by the Cooperative Development Service before soliciting new members. "It has to make economic sense, and so far the study indicates it does," says Patton. "With that in hand, we will kick off recruitment in Minnesota and develop a business plan for members to follow."

Another goal of the MEC is to identify the best cultivars of elderberries. The University of Missouri is working in this area, and Patton hopes to see other universities do so. While some varieties are available from nurseries, most growers use cuttings from wild elderberries. Patton expects varieties will be identified and developed for different uses.

As demand grows, he expects the MEC may use elderberries from other states. However, the long-term goal is to encourage similar co-ops in states with farmer-growers.

"We will be glad to share our experience in setting up the cooperative," he says. "Once set up, they will be able to purchase access to the feasibility study and business plan. We are very focused on local distribution that parallels local grower production."

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