

## In Search Of “Super Juniper” Goats

Though goats don't appear to be fussy about what they eat, researchers at Texas A&M are hoping to figure out which ones have the biggest appetite for juniper (cedar). The Super Juniper Eating Goat (SJEG) could help ranchers keep the invasive brush from taking over pastureland.

“We hope that in the next couple of years we can find genetic markers in goats and then do marker-assisted selection for breeding,” explains John Walker, professor and director of research at the Texas A&M AgriLife Research and Extension Center in San Angelo.

He and other researchers have been working since 2000 to record and develop techniques to see how much and what individual goats eat. They are monitoring two goat breeds: Angora and a Boer-Spanish cross. Looking for genetic markers in two breeds helps confirm the research results.

Walker says previous research in mice and fruit flies has shown that dietary preference can be changed with selective breeding.

“We're curious to see if we can do it with goats,” he says. “We want to make them more

efficient, better biological control agents, actively finding juniper, and consuming it so that they're less competitive with other livestock on the same pasture.”

Goats tend to eat juniper in the winter while other vegetation is dormant and lower quality. Eating the small, new growth is especially helpful because it will kill the plants.

“We want to identify the goats that eat juniper when other food is available,” Walker says.

He notes that the invasion of woody species is a worldwide problem. Natural fires used to help keep them in check, but between lack of fires and overgrazing, juniper has thrived especially with drought conditions. Landowners can mechanically cut or dig them out or use herbicides. The problem with broadcast spraying is that the rate required for effective control exceeds the allowable rate for the herbicides. Each plant must be sprayed individually.

Goats provide another option and have a double benefit as they can also be sold in a market with a growing demand for goat meat.

“Goats cannot be expected to clear a cedar



Researchers at Texas A&M University are trying to figure out which goats have the biggest appetite for juniper trees.

break, but they can be an important part of a management plan to stop the re-invasion of juniper after a pasture has been cleared using other methods,” Walker says.

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## Targhee Sheep Gaining Popularity

Robert Padula is a Minnesota sheep producer who's a strong proponent of the Targhee breed because of feed efficiency and better economic return. “I've raised Targhee since 1990 and get much better feed efficiency than with larger white-face sheep. The same feed I'd give to 3 of the larger white-face breed will feed 4 Targhees.”

Padula says the Targhee wool is worth twice as much as the bigger breed and he gets a 175 percent lamb crop compared to 135 percent with the bigger breed. “The bottom line shows I am definitely money ahead with the Targhee,” Padula says.

Padula is a strong proponent of the breed and recently participated in the Targhee national association's Starter Flock Program for young producers interested in starting a flock. Last year he loaned a Targhee ram to a Lake Benton, Minn. high school student who was awarded 3 ewes from Targhee breeders in South Dakota and Wyoming. “The Targhee aren't as demanding as the Hampshires that I started with,” says Desire Routier, who earned the starter flock after learning about

the program from other producers and further researching it through links on the Targhee breed website.

Routier says the Targhees are easy to care for, easy to handle during lambing and are very good mothers. This past July at the U.S. Targhee Sheep Association Show in Wisconsin, her 5-mo. old ram earned second place in its class and one of her yearling Targhee rams sold for \$400.

Like Routier, Padula got his start in the sheep industry as a youngster in 4-H. He showed Columbia sheep for several years and learned about Targhees from a neighbor who was raising them. Later, as a graduate student in Montana, he met several Targhee producers and was further impressed that it was an excellent breed. The performance records he saw in the National Sheep Improvement Program convinced him to switch to Targhee in 1990. It's still his dominant breed, but he also raises Merino sheep.

“Producers can buy Targhee rams with excellent performance data and bring their genetics into another breed to improve

overall herd performance,” says Padula. “The Targhee breed is also a great choice for non-traditional small farmers who can have a flock of 10, 20 or 30 animals.”

Padula says students with Targhee show animals may be at a disadvantage in competition because judges may not be as familiar with Targhee characteristics as they are with larger breeds, but that shouldn't deter them from choosing the breed. “They're excellent animals for youngsters, economical to feed and easy to care for with good mothering qualities,” he says.

“I've been around sheep production most of my life and it's a tremendous enterprise,” says Padula. “I'm really happy to see young people like Desire get involved in production because we need young people who have a yearning to see the industry do well.”

The Targhee breed is one of America's youngest, developed in 1926 at the U.S. Sheep Experiment Station in Idaho. Targhee are crosses from Rambouillet, Columbia and Corriedale genetics. The name was chosen because the station's flock grazed in the



Targhee sheep breed is known for its excellent feed efficiency.

Targhee National Forest during the summer. It's a dual-purpose breed with good meat characteristics and heavy fleece of high quality wool. They're especially popular in the West because of wool that's 3/4 in. fine and 1/4 in. long.

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## Nigerian Dwarf Goats Pack A Lot Into Little Package

According to folks that raise them, Nigerian Dwarf goats offer a lot in a little package – easy care, excellent milk and great pets.

“I didn't have to help very many mammas deliver,” says Dotty Clark, who serves as the registrar for the Nigerian Dwarf Goat Association (NDGA). Babies average 2 lbs. at birth and grow rapidly. Young bucks can breed as young as 7 weeks.

Clark's frustration with birthing issues with pygmy goats led her to the Nigerian Dwarf breed, which was perfect for her daughter's 4-H project, as well as an entertaining addition to her family's Arizona property.

The livestock dairy goat has West Africa origins like Pygmy goats. Nigerian Dwarf goats were bred to have longer, more elegant structures like other dairy goats compared to heavy-boned Pygmy meat goats. Nigerian Dwarf does must be 21 in. or less at the withers, and bucks are 23 in. or less to meet NDGA standards. Colors vary widely. They range from white to jet-black and spotted to tri-colored.

“They are very adaptable to climate,” Clark says. NDGA members live as far north as

Alaska and Canada and as far south as the Deep South.

“They are very easy to take care of. Like horses you can feed them the bare minimum like Bermuda grass and alfalfa mix in a fenced-in area,” she adds. “Other owners go overboard. Some of our members have even built play yards for the kids to run around.”

The goats' unique hop along with their climbing skills make them very entertaining – and smart.

“They can be trained like dogs,” Clark says. “They can do the agility skills, but they are smarter (than dogs), so they tend to be stubborn about it.”

YouTube videos show many of their talents. One owner taught her goat to swim in a pool, though goats typically don't like water.

“A lot of people get them for the milk, which is high in butterfat (6 to 10 percent higher than most goat milk) and makes the best ice cream in the world. And the cheeses are great,” Clark says.

Nigerian Dwarf goats can live about 16 years, and their numbers are growing. The



Nigerian Dwarf Goats range in color from white to jet-black and spotted to tri-colored.

American Livestock Breeds Conservancy recently upgraded them to a “recovering” rating, because of increased numbers. NDGA has more than 26,000 in its database.

Prices vary according to region and demand. Champion pedigreed breeding stock typically runs \$300 to \$500 apiece, with pet stock (wethers) between \$50 to \$100.

Clark recommends getting at least two goats as they are a herd animal and can be noisy if they are lonesome. She also suggests dehorning them because the horns get easily caught in fences and other barriers.

She adds that most Nigerian Dwarf goats



live peaceably with other animals such as cattle, horses, llamas and donkeys. While it's true they improve the pasture by eating undergrowth and wild bushes, it's a myth they will eat anything.

“They put everything in their mouth but they don't always eat it. They are leaf eaters, not grass eaters,” she says.

For more information, including breeders in your area, check out the NDGA's website.

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