

# *Graze goats to clean up trees, brush, weeds and other unwanted plants*



## *Grazing Goats Case Study Key Points*

### *Goats:*

- eat trees, brush, weeds and other unwanted plants
- quickly knock down tall weeds and brush when crowded into a small space
- eat up and high, while cattle eat low and down
- require good fences

# Graze Goats to Get Rid of Plants You Don't Want

Steve Smith's goats would rather eat thistles than grass. "I move them around to any place I have plants I don't want," the Marshall County farmer says of his



Steve Smith

small herd of Nubian goats, "and they're pretty good at cleaning up tall weeds and brush."

"If you want healthy goats, give them some tree branches," Smith says.

"They'll eat about any tree at any time of year. Their preferences are woody plants first, then taller broadleaves or forbs, then clover, and grass last."

While his goats will eat about anything, they do want weeds to be at the right stage of growth, Smith says. "They love musk thistle at the right stage, and Canadian thistles at

the bloom stage. They also really like multiflora rose, horseweeds, lambs-quarter, ragweed, and burdock."

Goats do very well on weeds, too. Smith says milk production takes a jump when a doe gets to feast on stinging nettles. "But one ate stinging nettles so long she lost her voice," Smith laughs.

He says his goats can kill multiflora rose in a season if he's patient. "The strategy is to move the goats into the weedy or brushy area for a few days, and let them eat all the leaves and small branches off the plants. Then take them out, to let the trees, bushes or weeds recover enough to put new

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## *"Goats can kill multiflora rose in a season if you're patient"*

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leaves back on, using the plant's energy to do that. Then you move the goats in again. When you do this several times, you weaken the plant and it will die," Smith says. "It's will die over the winter if not during the season."

## Goats eat high

Smith, who's grazed goats since 2003 and watched their eating habits, says goats graze differently than cattle. "Cattle eat down, and eat low," he says. "But goats will eat high. They stand up on their hind legs to trim a tree's lower branches and leaves, and they prefer forbs over grass. They'll eat up to 5 feet high."

The goats will eat some of everything, like they're at a salad bar, but at the same time are a little picky, he says. "If you want them to eat all the plants in an area, you need to concentrate them in a small area," he says.

He says goats are competitive, and

when one begins to eat a plant, they all go for it.

"They learn what to eat from each other," Smith says. "If you really want

to knock brush and tall weeds down, crowd them into a small space."

Smith does that with portable Premier electric net fencing and a solar-powered fencer. "You have to have a good fence—you can't keep goats in with one strand of electric fence.

"But my goats are trained to respect the netted electric fence. I don't have to have it on all the time. They've learned to stay away from it," he says.

Smith is still in the process of building perimeter fences with six-wire high tensile permanent electric fence. He rotates interior small pastures easily with the net electric fences that are easily moved.

The perception among many farmers is that goats are not easy to manage, Smith says, but he's never had trouble with his Nubians. He calls them the Jersey cows of the goat world.

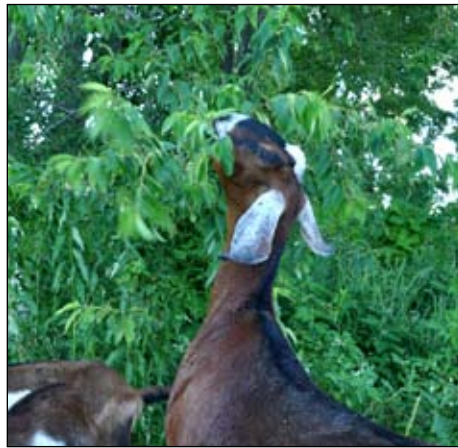
They're very gregarious, and like to stick together. They bond well with humans, and because we handle them every day, they're easy to handle," Smith says.



**CLEARING OUT THE UNDERSTORY:** Within a few days of confining his Nubian goats in this old farmstead area, Steve Smith says the weeds and brush were gone.



Goats “eat up” as high as they can reach (below). Smith hits weedy patches with them several times, stripping leaves and forcing the plant to use its energy to put on new growth until it is so weakened it dies (top). Netted electric fence so flexible Smith just walks over it (when it’s off!) keeps goats in small interior pastures.



### Doesn't like to spray

“Spraying might be quicker or cheaper, but I don’t like to spray,” Smith says. “My concern isn’t just getting rid of problem plants. Spray kills everything and I want some diversity.”

Smith, who grew corn and soybeans with his family until about 10 years ago, says he’s through spraying. “I sprayed weeds from the time I was 12 years old until I was in my 40’s, and I just don’t want to do it any more. This way is more fun,” he says.

### Switched to sustainable farming

Smith quit farming large-scale corn and beans and bought a rough 40-acre farm where he could experiment with sustainable farming methods. While his goats are cleaning up his rough farm, that’s not the reason he’s building the herd.

“I’m trying to build toward a Grade B dairy and cheese operation,” he says. “Goats sell well around here, and goat cheese sells for a premium. We milk only enough now for our own

use, but we’re moving towards commercial,” he says. He’s convinced he can make a good living on 40 acres with a small goat dairy herd, a few grass-fed beef cows and some sheep.

### Natives, timber in rotation

Smith has had as many as 28 adults and kids, but now has 17. Once he gets his woodlands fenced, he’ll have 32 acres total to graze. His long-term grazing plan includes pastures with mixed native prairie grasses and forbs, and browsing timber in the rotation.

“Goats have a high mineral need, and that’s why they like twigs,” Smith says. “They also have some problems with stomach worms and other parasites. Oaks help with that problem. So we will include some timber understory browse in the rotation.”

He also has a prairie with a diversity of plants. He’ll start the goats in the spring on cool season grasses, then in July move into the prairie. Goats like the diversity of plants in the prairie, especially the forbs.

“I’m trying to get the permanent fences set up for rotational grazing,” he says. “I want to be set up to move the herd every day, maybe in half-acre paddocks.”

The goal will be to eat forage at its

peak. An acre of good pasture can support 10 goats; he believes he can run a cow-calf unit on that same acre since they don't compete with each other.

He says he'd run goats through a paddock for a day, to respond to what's growing, then move on as he lets the cows in. He'd like to give a paddock a 3-week rest for regrowth.

#### 4-H project gone wild

"The first two goats we had were for a 4-H project, and it just mushroomed from there as the whole family learned we liked having them around," Smith says. "I started reading about goats for rent in western states, where they're used to clean up brush and weeds and restore native pastures."

"I've turned them in to eat brush and understory, then cut the small trees down that I didn't want. Then I let the goats clean the leaves and small branches off what I cut down. They make my work easier," Smith grins.



**GRAZING BRINGS DIVERSITY:** Smith sees only bluegrass in a part of a field that was only hayed (above). Where goats grazed, (below) he sees much more clover and a greater diversity of plants and structure in general.



#### Build a herd quickly

"We bought the first two, but the rest have been free, born on the farm. The does have twins and triplets, so you can build a small herd pretty quickly," he says. He hasn't put any goats out for rent, but he does sell them regularly and has sold a few as starter herds to people wanting to clean up weeds and brush. He's selectively breeding the herd now for parasite resistance.

"My wife Sally has ridden horses and loved them all her life. But she's decided we can live without horses, but we will always have goats because they're so personable," Smith says. "They're easy to take care of, they bond well with humans, and they're part of a system of organic farming. "It's the way I want to do things."

Part of Smith's grazing rotation will be a native prairie he's establishing on his land near Marshalltown. Goats like the diversity of plants a prairie offers, and their grazing helps keep it diverse.

