## Grazing Cattle In The Woods

Grazing cattle in the woods has been against the advice of the USDA since the 1930's. Foresters also cringe at the damage animals can do to trees. But, woodlots and cattle can coexist, says Diomy Zamora, University of Minnesota Extension Educator in Agroforestry. It just takes the right management.
Zamora's goal is to demonstrate a "better way to do that through silvopasture."
"Silvopasture is an integration of trees, livestock and forage," Zamora says. "You have to manage the forest for the production of forages underneath."

Remove low quality trees to allow more light in and incorporate seed to grow better forage. For Dan Caughey, that meant cutting aspen and other low value and less hardy trees and keeping varieties such as burr oak that can handle cattle pressure. The Fort Ripley, Minn., livestock farmer was part of an extension demonstration comparing open pasture, wooded pasture and silvopasture. After removing trees in the silvopasture plot, clover and timothy seed were hand sown in the fall before the cattle were let in the woods to pack the seed in the soil. By the following summer the grass was ready to graze.

Grazing must be controlled, emphasizes Tyler Carlson of Sauk Centre, Minn., who gives his cattle between $1 / 2$ to 1 acre per day when grazing through his oak silvopasture, depending on the forage available and animal units in the herd. The wooded pasture provides forage during the hottest days of summer, and he monitors it so that the cattle don't overgraze or bother the trees.

After 6 years he's noticed a few benefits regarding buckthorn and new tree growth. Before the cattle grazed in the woods, he thinned out the ironwood trees and removed as much buckthorn as he could. Now the cattle take care of buckthorn regrowth.
"I'm pretty encouraged because I'm getting buckthorn control. Cattle love it. It's the first thing they graze," Carlson says.

As a result, oak seedlings are popping up everywhere - something he hasn't had before. Carlson also practices another form of silvopasture - planting trees in pasture. He planted double rows of Norway and White Pine trees 8 ft . apart in 300 to $350-\mathrm{ft}$. long rows with 50 -ft. wide strips of open pasture between them.
"Conifers are easy to get established in pasture, and there are potential markets to


Woodlots and cattle can coexist with the right management, say University of Minnesota researchers.
sell the trees," he says. "The idea is that they will reduce heat stress on the cool season grass and minimize summer slump in pasture growth."

Studies in Missouri show that shade from trees extends the grazing period by at least 2 weeks, and there is more nutrition in the forage, which nets more weight gain in livestock.
"Cattle like the shade," Caughey agrees, and he is opening up more pastures on his wooded ground to make better use of his land.
"The biggest value of silvopasture is using wasted land," Zamora says.
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## Rodent Bait Pipe Keeps Kids, Pets Safe

John Humeniuk has a simple method for killing rats and mice without endangering kids and pets.
"I use pieces of pipe sized for either mice or rats," explains Humeniuk. "I drill a hole in the middle of the pipe and slip a wire through and out one end. After I wrap the end of the wire around the bait block, I pull the bait into the pipe."

Humeniuk secures the bait in place by simply wrapping the wire around the pipe. Even shaking it won't release the bait. The bait pipe can then be laid wherever the pests are causing problems. While the pests can access the bait, larger creatures can't.
"We lay the bait pipes around the foundations, in our sheds and around tractor tires, anywhere the pests might go," says Humeniuk.
He advises checking the internet for


Bait is pulled inside pipe where rats and mice can reach it, but kids and pets can't.
different levels of bromethalin, the active ingredient in poison bait. "I like the Top Gun brand with 0.05 percent poison," says Humeniuk. "It really works great."
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## Old Tractor's Bolt-On Hitch Solid, Strong

"My Ford 9N tractor came with a 3-pt. hitch, but I wanted something more solid that I could use to pull trailers and other heavy equipment. So I built a ball hitch for it that bolts on around the pto shaft," says Allan Isaac, Dawson Creek, British Columbia.
Isaac drew plans for the hitch on his computer, then used a CNC plasma machine to cut the bracket out of $1 / 4$-in. thick steel. It extends back 18 in . and installs with 4 bolts into a casting that was already on the tractor. The ball hitch bolts into a hole on back of the bracket.

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Home-built ball hitch extends back 18 in. and bolts on around Ford 9N's pto shaft.


Tunnel has a solid top and double-walled screens on the sides. As cattle walk through, blankets brush flies off. Holes punched in screens allow flies to enter but they can't get out.

## Walk-Through Trap Wipes Flies Off Cattle

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sue, or the order coupon on page 40.
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A 1930's vintage walk-through fly trap is providing fly relief for cattle on Linda Simmons' South Dakota ranch. The $10-\mathrm{ft}$. tunnel has a solid top and double-walled screens on the sides. It works so well she no longer has to use her ATV-mounted sprayer for fly control and has reduced her use of insecticide in the cattle's minerals.
"The cattle walk through the darkened interior where carpet and canvas strips or even blankets brush the flies off," explains Simmons. "The flies are drawn to the light coming through the screens."
Holes punched in the screens allow flies to enter but they are unable to leave and return to the cows. Simmons followed plans found on the University of Missouri website (extension2.missouri.edu/G1195\#works). However, she already has ideas for revisions.
"I think opening the trap up with a peaked roof of Plexiglas would catch flies that head for the roof, not just the sides," she says. "I'm also looking for long bristle brushes to remove flies from the legs and bellies. It
works well this way, but I think it can be made even more effective."
Simmons estimates the trap catches about 40 to 50 percent of horn and face flies. During the first 2 years of use, she walked her herd through the trap when the fly population reached the economic threshold of 200 flies per animal. She used it 6 times the first year. By the third year her fly population had fallen such that she only used it twice.
"I think with the improvements, I could catch 75 percent of the flies," she says.
Simmons runs 104 cow/calf pairs on rotational grazing with the installed fly trap. She has a second conventional pasture that holds stockers and hopes to put a second trap there. Construction of the first one cost a little over $\$ 800$ for materials and around $\$ 3,000$ for labor.
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