

Shredding Reduces Shinoak Problem

John W. Paalik

The Edwards Plateau area comprises about 24 million acres of "Hill Country" in West Central Texas. Five million acres are infested with shinoak, where motts often occupy as much as 75% of the land. This presents a problem, as grass production is reduced substantially, often to the point of very low production.

William A. Dodds, rancher and cooperater with the Concho Soil and Water Conservation District, has found a solution to this problem. In March of 1975, he purchased a heavy duty shredder from Hydro-Ax Southwest Company in Dallas, Texas. This heavy duty shredder combined with a follow-up of grazing with goats or shredding with a drag shredder is presently controlling the shinoak.

The "Hydro-Ax" is similar to heavy equipment used by the highway department, but has an 8-foot shredder blade attached to the front. "I first saw the shredder being used to clear right-a-ways for power lines in northern United States and Canada," Dodds said. "I was impressed and decided to try it on shinoak. We have been very pleased with the results."

Larry Ringer, foreman of the Dodds' Ranch, operates the shredder in his spare time.

"Everything is completely hydraulic, with no mechanical problems, thus reducing break-down time," Ringer said. "We keep an extra set of everything on hand and the only time we lose is the time spent for replacing a hose."

Shredding not only weakens the shinoak, but it also opens the area to more sunlight. This allows the grass to grow more vigorously and compete with the shinoak for water and nutrients. Better grasses occur in the shinoak motts where there has been protection from grazing pressure. This provides a seed source, and combined with the accumulation of litter, the grass grows back quickly.

Shredding the shinoak only brings it down to a level where it can be managed. Follow-up control is needed with either a drag shredder or by grazing with goats. Dodds uses both the drag shredder and goats as a follow-up.

If a drag shredder is used, maintenance will be needed every year or two depending on the amount of regrowth. This shredding should be done within 90 days after the first leaves appear. Shredding during this period catches the plants in a weakened stage as they are using all of their food reserves to initiate growth and is more likely to get a better kill.

When goating is used as a management follow-up, the main problem is stocking enough goats on the area. An average of two to four goats per acre is needed, depending on the percentage of shinoak. Goats prefer shinoak, so they are the only livestock in the pasture. Cattle and sheep are kept out and the plants they



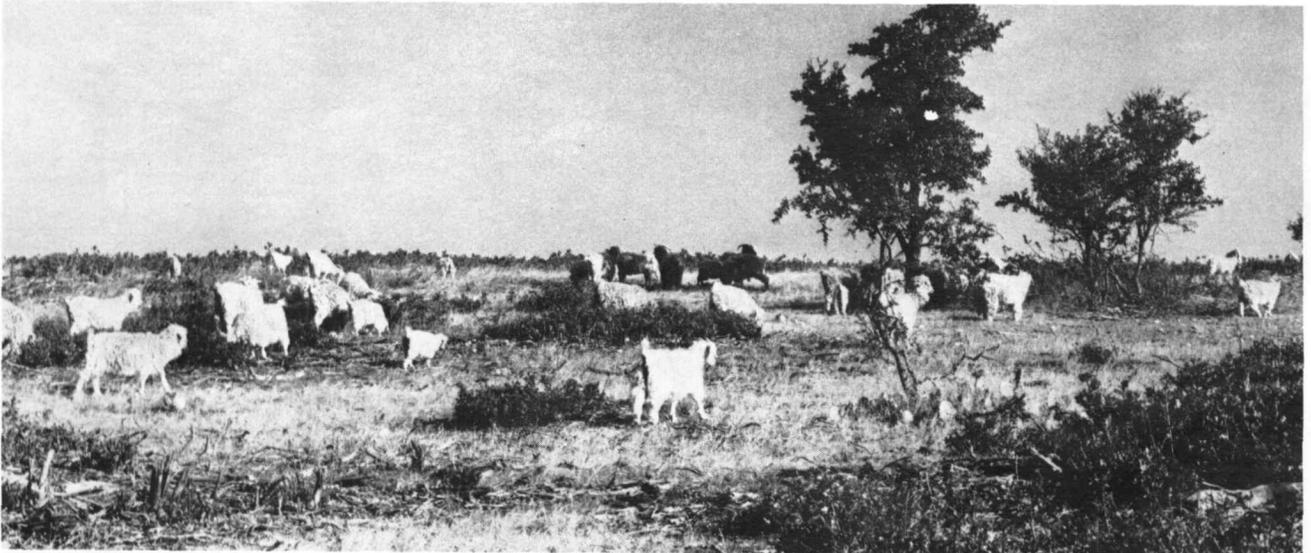
Foreman Larry Ringer of the Dodds' Ranch and Dodds' son, Kevin, display the shredder purchased by Dodds in March of 1975.



Foreman Larry Ringer of the Dodds' Ranch holds one of the movable shredder blades as the front end is tilted.



The shredder in action shows the type of shinoak that it handles with no problem.



Brady Standard Herald Photo

The shredder only brings the shinoak down to a level where it can be managed, either with goats or a smaller drag shredder.

prefer have a complete growing season rest. The purpose is to overgraze shinoak sprouts while more desirable range plants increase.

Grazing sequence of pastures is set up according to priority, concentrating goats on one pasture to get complete defoliation. The goats are then rotated to other pastures, but as new leaves appear in the first priority pasture, the goats should be rotated back to get complete defoliation the second time. A minimum of 3 years of goating is generally needed to obtain desired control. Resting pastures before initial shredding is recommended so grasses will become rank and less palatable to goats so they will prefer shinoak.

Ringer stated that their shredder is easy to maneuver and shreds 3 to 4-inch diameter trees with no problem. When it was

demonstrated on the Dodds' Ranch, a mesquite tree with a 13-inch diameter trunk was shredded to the ground successfully. The soil is not disturbed by tillage. The shredded shinoak litter is left on the ground, protecting against water and wind erosion.

"With the easy handling of the shredder, wildlife patterns can be left in any shape, form, or fashion," Dodds said. "In some areas, we have shredded the entire area and allowed the brush to come back in certain patterns. These patterns are usually along draws or shallow hillside where deer need the greatest protection."

Shredding shinoak has definitely found a place in the Edwards Plateau of Texas. Range forage productivity is improved and soil erosion is curbed. ●

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