

# Ripping Aids Range Recovery

Some Ranchers Are Doubling  
Their Range Forage Production

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Some ranchers in southeastern Arizona are doubling or tripling their range forage production. At the same time, they are speeding up recovery of depleted ranges and replacing poor forage plants with highly palatable grasses. In addition, they're getting green feed earlier in spring and later in fall.

This range improvement is coming about through ripping of overgrazed or sodbound ranges. In this treatment, two subsoiling chisels are spaced 5 feet apart on a wheeled implement carrier that is pulled by a heavy crawler-type tractor. The chisels usually penetrate the soil to a depth of 18 to 24 inches.

Contour furrowing with a subsoiling chisel loosens the soil, holds the water where it falls, and allows the moisture to penetrate. Grasses have an opportunity to become established and forage production increases. The increased water storage lengthens the growing season, so that green feed is before the cattle for a longer period.

## Untreated Range Slow

On the other hand, recovery of depleted rangelands without mechanical treatment is usually a slow process. Whenever the range grasses are removed by overgrazing or drought, the moisture absorbing and moisture holding capacity of the soil is lowered. The surface is exposed to the beating action of raindrops, and, particularly on heavy soils, the surface seals over. Rainfall in heavy, seasonal storms, that would otherwise be used by growing grass, runs off the surface, causing erosion. The soil dries out rapidly and grass seedlings have little chance to become established.

Any water holding treatment—listing, pitting, or rock or brush percolators—speeds range recovery. Ripped furrows tend to remain effective longer than listed furrows, which have an active life of 4 to 7 years. One



Boosted forage production along the furrows is clearly indicated by this photo of a ripped area near Elgin. A closer spacing of the furrows would have resulted in the same increase over the entire area.

ripped area on the Babocomari Ranch of Frank C. Brophy near Elgin was checked 10 years after treatment. This area produced 1400 pounds of air-dry herbage per acre, as compared to only 560 pounds per acre on non-ripped range. The 10-year-old furrows were still in good condition and will probably be effective for several more years.

## Treatment Helps Seeding

Ripping is a good soil preparation for reseeding. Seed may be broadcast in the furrows from shaker boxes attached to the chisels. One rancher conserved seed by rigging Planet, Jr. seeders on the implement. County agents will supply information regarding grass species adapted to each locality and the time when reseeding should be done.

Ripping, like many mechanical treatments applied to rangelands is expensive. Areas must be selected carefully if such treatment is to pay off. Pick areas that have a high po-

tential productivity, such as flat or gently sloping lands with deep, fertile soils. Tight soils respond better to treatment than sandy soils. Reseed if no perennial grasses are left. Usually, sufficient grass remains to make a stand without reseeding.

## On the Contour

Construct the furrows on the contour to keep water from running down the furrows and causing erosion. Furrows should be spaced at 5-foot intervals, since they influence the soil only 2 to 3 feet laterally.

Once the furrows are made, protect the investment with good range management. Work out a management system which will insure grass growth and keep the range productive. Seasonal grazing or better distribution of stock will frequently do as much good as a cut in livestock numbers.

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