

Agricultural

NEWS LETTER

F E D E R A L R E S E R V E B A N K O F D A L L A S

Vol. 9, No. 1

DALLAS, TEXAS

January 15, 1954

Range Pitting Proves Profitable

Many methods and devices will be used to hasten the re-establishment of grasses on drought-damaged southwestern range lands.

Deferred grazing and light stocking, of course, are essential to the recovery of pastures, for the weak stands of grasses that are present following severe drought may be killed quickly by being grazed too early or too heavily. However, on pastures where the vegetative cover is extremely thin, it frequently is profitable to take additional steps to aid the re-establishment of productive grasses.

One of the more recent techniques for doing this is range pitting—a process of making a series of small depressions about 5 to 7

inches wide, 4 inches deep, and 3 feet long over the range area. These “pits” retard water runoff and permit a greater proportion of rainfall to penetrate the soil. Moreover, the depressions tend to catch seed blown from mature grass plants in the area, and because of the greater amount of moisture in the pits, natural reseeding is stepped up materially. Some ranchers have found it profitable to scatter seed of the more desirable grasses over pitted areas in order to aid nature further in re-establishing a cover of productive grasses.

The accompanying photograph shows a pitted area near San Angelo, Texas, following a 5½-inch rain. Tests by the Soil Conservation Service indicate that moisture penetra-



—Soil Conservation Service Photograph

tion under the pits was as much as 26 inches, while on the sides of the pits, penetration was only 8 to 10 inches. Even in times of normal rainfall, the additional penetration into the subsoil is of material benefit to pastures in maintaining a strong and vigorous growth of productive grasses.

The pitting operation is relatively simple. It usually is done with a one-way disk plow from which every other disk has been removed and alternate remaining disks mounted on the shaft about 2 inches off center. As the plow is pulled across the range land, each off-centered disk plows a few inches as it rolls 2 or 3 feet, then lifts, skips about the same distance, and digs into the soil again. It has been found that 20- to 24-inch disks are the most suitable, as they make pits about 3 feet long and 5 to 8 inches wide.

A disk grass seeder can be pulled behind the pitting machine, if artificial seeding of grasses is desired. On many ranges, natural reseeding will occur if existing plants are permitted to mature a seed crop.

The pitting operation can be used under a wide variety of conditions. Greatest benefits are obtained where there is a relatively deep topsoil. The operation is not practical where mesquite or brush makes it impossible to pull a plow across the pasture. However, the practice is useful on open areas of brush-infested ranges and will supplement a brush-removal program by increasing the growth and reseeding of desirable grasses.

The profitableness of range pitting on suitable areas is shown by the results of tests conducted in the San Angelo area in 1949 and 1950. In March 1949, 21 acres were pitted and seeded. The pasture was then rested completely, with no grazing until June 1, 1950. At that time, two cows with their calves were placed on the 21 acres. The average weight of the cows was 750 pounds and of the calves, 135 pounds.

On November 1, when the cows and calves were removed from the pasture, the average weight of the cows was 955 pounds and of the calves, 390 pounds. On adjoining areas that were not pitted, calf weights on November 1 averaged 275 pounds, or 115 pounds per calf less than on the pitted and seeded area.

In discussing the value of range pitting, Mr. Olen Fenner of the Soil Conservation Service is quick to point out that it is not a cure-all for range problems. First of all, sound range management practices must be followed in all operations. These include giving depleted ranges an opportunity to recover by natural growth and reseeding; deferred grazing; and stocking all pastures at rates well within their capacity to produce.

Light grazing—and, in some cases, deferment—must be followed for several years where ranges are damaged so severely by drought that many productive species of grasses are reduced sharply or eliminated from stands.

Burning Doesn't Control Insects

Hibernating insect pests cannot be controlled by burning pastures, woodlands, brushlands, and edges of cotton fields, says Neil Randolph, entomologist at Texas A. & M. College.

For example, the boll weevil, which is the Number 1 cotton insect, spends the winter in quarters it is impossible to reach by burning. This pest can be controlled in the cotton field during the growing season through the use of sprays and other insecticides recommended by local county agricultural agents.

Not only does burning fail to control insects and weeds, but it destroys valuable plant residue that provides cover for game, adds organic matter to soil, and reduces soil erosion. Moreover, burning of fields or turn-rows frequently gets out of control, causing damage to property and endangering lives.

Where Will Sesame Grow?

With cotton, wheat, and peanuts under acreage allotments in 1954, southwestern farmers will be looking for crops to substitute on acreage formerly planted to these cash crops. Sesame—an oilseed plant—has received considerable publicity in recent years, and many farmers will give it consideration in their plans for 1954.

The Sesame plant is widely adaptable and can be grown in virtually any soil of the Southwest. High yields are more dependent upon fertility than upon any particular type of soil. Sesame is a drought-resistant plant, and this factor adds to its attractiveness to southwestern farmers.

Before attempting to grow Sesame, southwestern farmers will find it profitable to write to the Texas Sesame Seed Growers at Paris, Texas, for information on methods of planting, harvesting, and marketing the crop. The Texas Sesame Seed Growers is an organization of farmers who have had experience with the crop and are in a position to give practical advice. They have worked closely with the Texas Research Foundation in developing satisfactory production methods.

Per acre yields in Lamar County, Texas, in 1953 ranged from less than 300 pounds of Sesame seed to more than 1,200 pounds, with an average of around 600 pounds.

The commercial price for Sesame seed in 1953 was 11.7 cents per pound, net to the grower, delivered in his own county. The Texas Sesame Seed Growers believe that the 1954 price probably will be not less than 6 cents per pound and should be from 8 to 10 cents per pound.

A question-and-answer booklet prepared by the Texas Sesame Seed Growers is available upon request to the organization's headquarters office in the Liberty National Bank Building, Paris, Texas.

Order Pine Seedlings Now

It's time to order forest tree seedlings for planting in east Texas, says Don Young, Texas Forest Service management department head. Due to the drought of the past several years, survival of some newly established pine plantations has been poor. However, weather and soil conditions now appear to be much more favorable for survival of the trees, and landowners are encouraged to take advantage of these improved conditions.



More than 19,000,000 tree seedlings will be available to east Texas landowners for reforestation purposes during the current planting season. These include slash and loblolly pines (all shortleaf and longleaf seedlings have been sold).

Pine seedlings are sold to Texas landowners for \$3.25 per thousand and can be either shipped by express, f.o.b. Rusk, Texas, or purchased directly from the Indian Mound Nursery near Alto, Texas. Application forms and planting information can be obtained from county agricultural agents, the Soil Conservation Service, or the Texas Forest Service.

In Louisiana, plenty of pine seedlings also are available this year. Pine trees are becoming one of the State's leading crops, as more and more land unsuitable for growing row crops is being planted to trees. In 12 years, a well-managed pine forest will begin paying off and, under proper management, will be profitable for years to come. Order blanks and planting information are available from county agricultural agents.

Debeaking is the most satisfactory method of preventing cannibalism among chickens. The best time to debeak is several weeks before the pullets start laying, but it may be done earlier if the chickens begin to pick at one another before that time.

How Much Credit Do You Need?

Credit wisely used benefits both the borrower and the lender; unwise use of credit benefits no one. It is often difficult to draw the fine line of distinction between the wise and the unwise use of credit; in many cases, it cannot be determined accurately until the project for which the money is borrowed has been completed.

In a recent issue of *The Progressive Farmer* magazine, Mr. W. H. Pierce of North Carolina State College offers the following seven rules for farmers to use in determining their credit needs.

"1. *Don't be afraid to use credit* if it can be used to advantage.

"2. *Where necessary use credit* on those farm enterprises which can be made more profitable, or to establish new enterprises which will increase income.

"3. *Don't spread yourself too thin.* Don't borrow more money than you can expect to repay under a reasonable repayment plan.

"4. *Don't owe everybody.* Keep your credit program coordinated with respect to sources of credit, time, and method of repayment.

"5. *Plan for the use of credit;* that is, how much credit you will need, for what purpose, when, and for how long. Determine when and at what rate you can repay the loan.

"6. *Keep a record* of the results of your business so you can determine whether using credit is actually helping you to become more successful.

"7. *Establish and maintain a good credit rating* by paying accounts promptly, being honest with your creditor, and being able to provide records at any time, to prove your request for credit is reasonable."

Publications

Texas Agricultural Experiment Station, College Station:

Influence of Moisture on Heating in Feeds, Bulletin 768, by J. V. Halick and L. R. Richardson.

Sesame in Texas, Miscellaneous Publication 98, by Murray L. Kinman.

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Conservation and Utilization of Soil Moisture, Bulletin 767, by C. E. Fisher and Earl Burnett.

The Texas Feeding Stuffs Law, Circular 134.

Dairymen Use Clover to Cut Production Costs, Progress Report 1593, by A. C. Magee.

American-Egyptian Cotton Variety Tests, El Paso Valley Experiment Station, 1951-52, Progress Report 1609, by Lee S. Stith and others.

Fertilizer Requirements of Carrots in the Winter Garden, Progress Report 1611, by G. A. Buffington and D. R. Paterson.

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Cotton Variety Tests in the Lower Rio Grande Valley, 1953, Progress Report 1618, by J. L. Hubbard and others.

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Fertilizer Tests on Oats at Bluebonnet Farm, 1953, Progress Report 1623, by M. J. Norris and others.

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