

DRYLAND RANGE SEEDING RECOMMENDATIONS

FOR

SAN BENITO, MONTEREY, SANTA CRUZ COUNTIES

University of California Cooperative Extension
649-A San Benito Street
Hollister, Ca 95023
(831) 637-5346
FAX (831) 637-7111

Sergio L. Garcia

1999

BACKGROUND

Dryland Range makes up over one third of California. It includes about 10 million acres of open treeless grassland and about 25 million acres of oak grass woodland and brushy areas used primarily for grazing.

Forage is composed of annual grasses and forbs, including clovers and filaree. Perennial forage species make up a small percentage of California range.

FEED PRODUCTION

Feed growth takes place after the first rainfall in mid-October to late May. Feed growth is slow during the winter months because of low temperatures and low fertility levels. Most of the forage production takes place during the spring (March, April, May) when soil and air temperatures elevate. The average forage production in the three counties is about 2,500 pounds per acre with an animal carrying capacity of 1 AUM (animal unit per month) per acre. This should yield enough forage to feed a large steer or horse (800-900 pounds) or five mature sheep for one month.

SEEDING

Dryland pasture production can be increased by seeding to annual clovers or fertilizing with nitrogen, phosphorous and sulfur. Adding annual clover such as subterranean and rose clovers is probably the best way to improve forage production. Clover seeds should be inoculated with nitrogen fixing bacteria before planting. This is important because many soils either lack root nodule bacteria or contain those that do not fix nitrogen. You can do your own inoculation, by mixing inoculant with seed just prior to planting.

SEEDING TIMING

The best time for seeding is in early fall (October, November) if the ground can be cultivated. It is often beneficial to grow a crop of grain (wheat, barley, oats) in the spring before you plant the clover. This reduces weeds and provides a firm seedbed. Seed can be sown directly into the stubble with no further seedbed preparation. Clover and small grass seed should be planted about ¼ inch deep.

The amount of seed plant per acre varies between 10 pounds to 15 pounds depending on the seed mix, soil, rainfall and slope.

SEEDING METHOD

Seed may be drilled or broadcast by air or ground equipment. When broadcasting, seed should be ring rolled or harrowed lightly to cover the seed and help firm the seedbed.

FERTILIZER REQUIREMENT

Most annual dryland range is deficient in nitrogen, phosphorus and sulfur. Properly inoculated clovers, on a yearly basis, should fix 40 to 50 pounds of nitrogen per acre which can be used by the grasses.

The use of 500 pounds per acre of single superphosphate fertilizer at time of planting will supply adequate phosphorus and sulfur for establishment. Once the dryland pasture is established, you may apply a fertilizer mix containing 16 percent nitrogen and 20 percent phosphorus. It should be applied in October at a rate that will provide 40 to 60 pound of actual nitrogen per acre.

FEED VALUE OF IMPROVED DRYLAND PASTURE

The quality of forage produced is superior to most of our native pastures. Clovers have a high percent of crude protein when green and in the mature dry stage will contain up to 12 percent crude protein.

SUPPLEMENTAL FEEDING

The feeding of alfalfa or oat hay will increase the utilization of the forage produced from a dryland pasture. During the spring the green plant flush growth and the supplemental feeding of alfalfa hay would be most beneficial during the late summer months.

GRAZING MANAGEMENT

Annual clovers requires winter and early spring grazing to help eliminate competition from grasses and weeds and to stimulate early growth. On first year stands, grazing should be discontinued while the clover is blooming and until seed is set and forage has dried. In subsequent years, grazing intensity should be reduced during the period of blooming and seed set. Stands should be heavily grazed during the summer and fall to make use of the dry feed and to trample the seed into the ground.

**Dry Land Range Seeding
For
San Benito, Monterey And Santa Cruz Counties**

**Mix #1
Under 16 inches of rainfall**

Variety	Lbs	%
Kondinin Rose Clover	2	20
Wilton Rose Clover	1	10
Geraldton Sub Clover	1	10
Yardloop Sub Clover	2	20
Howard Sub Clover	2	20
Jemalong Barrel Medic	2	20
Total	10	100

Dixie Crimson Clover (opt.) 1

**Mix #2
Over 16 inches of rainfall**

Variety	Lbs	%
Wimmera Annual Ryegrass	4	40
Ariki Perennial Ryegrass	2	20
Perla or Hardinggrass	1.5	15
Smilo	1.5	15
Jemalong Barrel Medic	1	10
Total	10	100

**Mix #3
For Areas where Grassing
Can be control**

Variety	Lbs	%
Lana Vetch alone	15	100
Total	15	100

Wimmera Annual Ryegrass	4	40
Blando Brome	6	60
Total	10	100