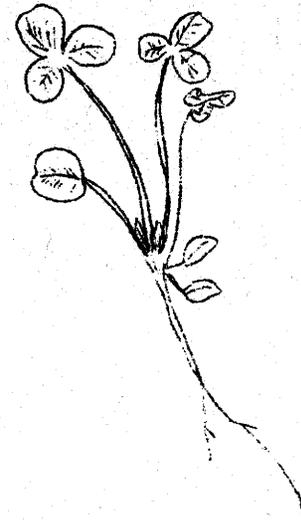


GROWING RANGE CLOVERS IN TEHAMA COUNTY



TEHAMA COUNTY FARM AND HOME ADVISORS OFFICE
Room 204, Federal Building
Red Bluff, California

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GROWING RANGE CLOVERS IN TEHAMA COUNTY
by Lin V. Maxwell, Farm Advisor

1. Will there be an advantage in planting range clovers on my place?
2. What seedbed preparation is necessary?
3. What clovers would be adapted to my ranch?
4. What time of the year would I plant the seed?
5. Would it be practical to seed annual range clovers with grain?

TESTS HELPED FIND THE ANSWER

In studies carried out during 1955 to 1958 in Tehama County, it was found range reseeding in many cases can be done practically and successfully. The clovers provide an additional supply of nutritious feed in many areas of the county.

Seeding can be accomplished by one of several ways. Methods successfully tried include air application, hand broadcasting and drilling. On some rough ranges it would not be advisable to use a drill, therefore, air or broadcasting would be the only practical way.

KINDS OF CLOVERS PLANTED

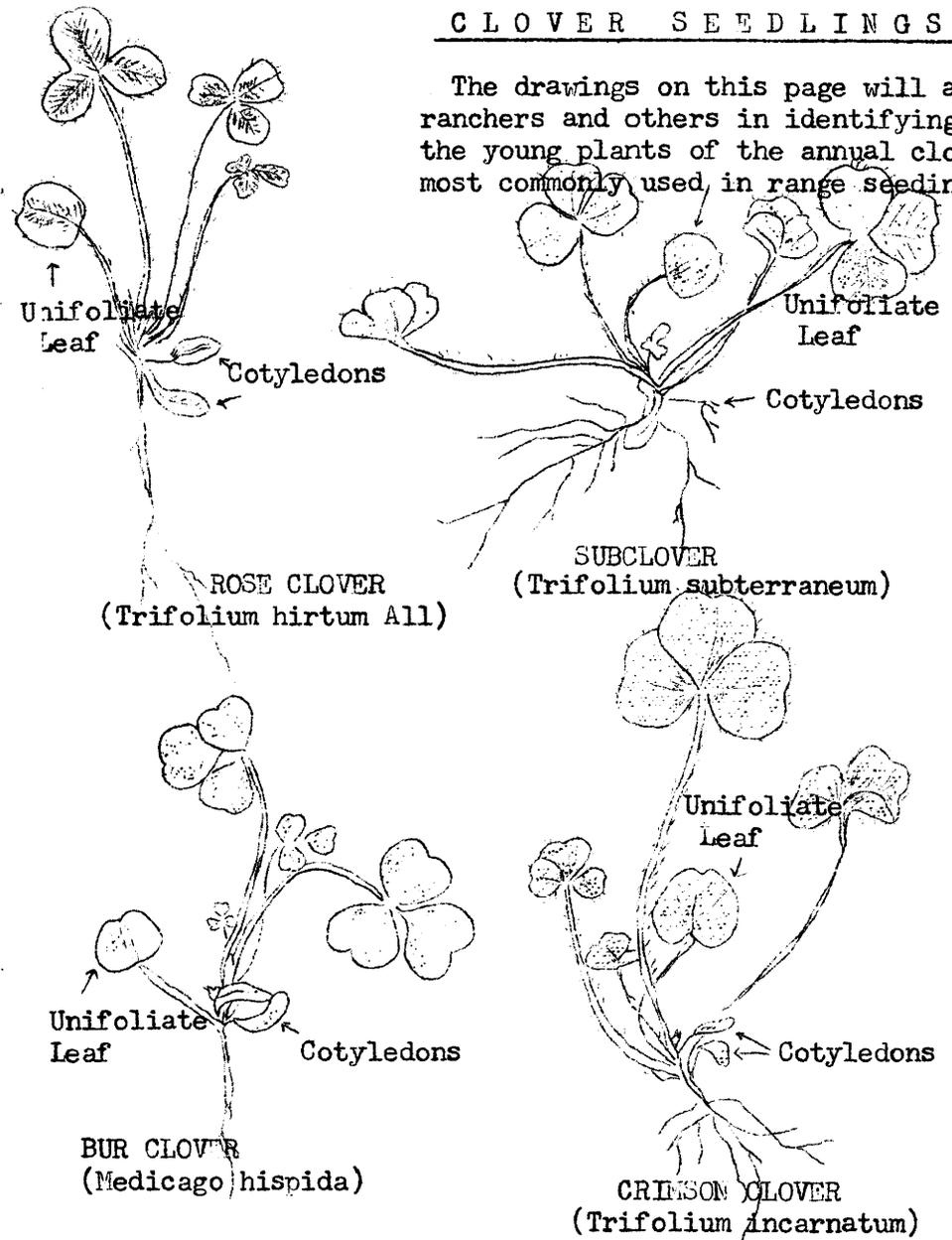
Rose, Crimson, Mt. Barker and Tallarook (the later two being subterranean) are the four clovers giving satisfactory results. They have done well over a wide range of soil series. Up to this date, the four clovers have proven to be hardy and produce an abundance of seed to perpetuate themselves.

ROSE is an annual winter legume. Not a native of California, it has grown successfully in most all plots and areas planted within the county. The clover grown in infertile or poor soil is generally small unless fertilizer has been applied. In contrast, the average growth of plants in relatively good range soil is 12 inch, bushy plants. In the better bald hill areas on the Miller and Owens ranches, Rose grew up to 18 inches.

The flower heads are rose-colored and will measure from 1/2 to 3/4 of an inch across and are heavily covered with stiff white hair. Rose is easily distinguished from Crimson because of the brilliant longer, red flower on the Crimson Clover.

CLOVER SEEDLINGS

The drawings on this page will aid ranchers and others in identifying the young plants of the annual clover most commonly used in range seedings.



*Page reproduced from
"Rose Clover" by Love and Sumner.

GRAZING MANAGEMENT

The annual clovers can stand heavy grazing, however they should be allowed to set seed in order to increase the plants. This will require some regulating and possible rotating or moving of livestock from the seeded area in the event of close grazing.

A well-balanced grazing schedule, taking advantage of maximum growth of forage, will make the grazing season longer and in addition will improve the forage on the range.

ACKNOWLEDGEMENTS

Sources of material in preparing this publication was gathered from cooperative range plantings on the Moran and Levy, Sam Ayer, Roy Owens' Estate, Loren Miller, John Dinkel, and Leon Williams' ranges.

Acknowledgement is given to L. J. Berry, Extension Range Specialist, University of California; and R. Merton Love, Professor of Agronomy, University of California.

Literature cited: "Production of Range Clovers" by Williams, Love, and Berry.

CRIMSON CLOVER is a colorful winter annual legume. It grows upright from 6 to 30 inches and has a long round head 1 to 2 inches long of deep red flowers. The stems and leaves are covered with fine, fuzzy hairs.

Crimson has done well in most of the areas planted, especially so in the heavier soils of Sehorn qualities. During the spring of 1958 on the Miller and Owens ranches, Crimson did very well in the volunteer barley. However, about the third year the stand of Crimson will start thinning.

SUBTERRANEAN

MT. BARKER is a low growing winter annual that is showing unusual adaptability within the county, particularly in soils of Sehorn, Nacimiento and Walker qualities. The plant has an unusual ability to reseed by setting seed into the soil from long runners that reach the length of four feet. The flowers are small creamy, pinkish-white, in groups of four.

The plant has excellent vigor and is a good forage producer that can withstand heavy grazing because of burying of seed in the ground. The small plots on Newville, Corning and less desirable soil types look favorable for production of Mt. Barker.

TALIAROOK is also a low growing plant with characteristics similar to Mt. Barker. The past four years, Tallarook has not established itself as well as Mt. Barker. Yields have been less, also it has not spread over as much area as Mt. Barker. However, in the higher rainfall areas of the Coast, Tallarook has been a higher yielder and has a green feed period for two or three weeks longer than Mt. Barker.

WHEN TO PLANT

On the Moran and Levy spread west of Corning during 1955-56, clovers were planted each month from October to March. From these plantings, fairly good stands were established any time from October to February. However, the optimum time (from the plot tests) is October and November. Plantings have not been made during the summer months and we understand some plantings made in Shasta County during this period gave very good results.

RATE OF SEEDING

Generally a heavier seeding rate will provide a solid stand the first and second year. However, a light seeding will develop into an adequate stand in four to six years. The seed may either be broadcast or drilled.

Within the valley floor to the foothill areas up to 1,000 feet, we have used from 1 to 14 pounds per acre. The following mix has given satisfactory results:

<u>Recommended Varieties</u>	<u>Pounds Per Acre</u>
Rose	2
Crimson	2
Mt. Barker	2
Total	<u>6</u>

METHODS OF SEEDING AND SEEDBED PREPARATION

Seedbed preparation or soil disturbance is desirable and in many cases is a must for a successful stand.

There are a number of methods of soil disturbances and preparations prior to planting that produced adequate stands of clover.

- (1) Seed following a burn. The fire will cut down competition from other plants and the ash furnishes a suitable seedbed.
- (2) Seed following the clearing of land with a bulldozer—it provides loose soil for a seedbed.
- (3) Seed with dry land barley.
- (4) Seed in barley stubble.
- (5) Discing the range will provide loose soil necessary for covering the seed.

Seeding ranges without soil preparation or soil disturbances is not likely to be successful. Mechanical coverage is desirable where possible, but not a must.

INOCULATION IMPORTANT

Inoculation is a term used when nitrogen fixing bacteria are added to a legume seed. It is good insurance for a stand establishment. The bacteria are frequently absent from the soil and by adding the commercial bacteria, it stimulates the roots in producing nodules on roots. They fix free nitrogen from the air for the legume, making the plant high in protein and in addition, improve the fertility of the soil. Use a clover inoculum, following the directions on the package, being careful not to get the seed too wet when mixing.

FERTILIZATION

The majority of range soils are low in fertility and a 200 to 300 pound application of single super phosphate will help in establishing a stand, also in most cases, increased yields will result.

Specific recommendations for fertilizing the soil types on your range may be obtained from the Farm Advisors Office.