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CONSERVATION PLAN

#6
Ted Thompson - *Maa*

Cooperator

EUREKA

SOIL CONSERVATION DISTRICT

Assisted by

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

THIS CONSERVATION PLAN is the result of team work. You and your neighbors, the members of the governing body of your soil conservation district, and the men of the Soil Conservation Service worked together to make it.

YOUR SOIL CONSERVATION DISTRICT was formed by local farmers. You are a member of that district. The district was created to serve you. Making this conservation plan is just one way in which the district can help you.

THE SOIL CONSERVATION SERVICE men helped work up this plan. They mapped your land to find out about its soil, slope, and how much erosion there had been. They looked at other things that needed to be known so as to develop the best conservation plan for your land. They helped in planning for the best use of the cropland, grazing land, woodland, and wildlife land. Where construction was needed, they gave engineering help. For maps and other special help, they went to their regional and state men. Back of these men are the national staff of the Soil Conservation Service and the various federal and state research stations. You got the best help known in soil and water conservation on this plan.

YOUR CONSERVATION PLAN will bring results only after you have carried out the practices planned for each field. When you have done this you will find that conservation farming protects your land and makes it produce better crops. On most farms conservation farming also pays more. The sooner you can do the things your plan calls for the sooner you will be able to get the benefits of conservation farming. If you need technical help to put the practices on your land you can get it through your district.

YOUR CONSERVATION PRACTICES will need attention from time to time to stay in good working order. The plan has been made to require as little upkeep work as possible. But this upkeep is important -- it's like a stitch in time. A little work on upkeep, done when needed, will avoid costly repairs.

YOUR CONSERVATION PLAN should be a blueprint for your farming operations for many years. You can adjust the plan if markets, prices, or other things make it wise to do so. If you need trained help to make the adjustments you can get it through your soil conservation district.

YOU AND YOUR NEIGHBORS can put conservation practices on the land faster and at lower cost by working together, sharing equipment, and exchanging ideas. It will also be easier to keep your practices working right.

YOU, more than anyone else, hold the responsibility of making this plan a success. Its success, and its benefit to you, your community, and the Nation will depend largely on your interest and belief in, and practice of, soil and water conservation and good land use.

normal. There is evidence of an alkali, salinity, and wetness condition.
Owner Ted Thompson Plan No. NV-SCD-20-18

Operator Same Acreage 220

GENERAL

A conservation ranch plan has been prepared for your Mau place which is located on the east side of Diamond Valley, approximately 30 miles north of Eureka, Nevada. The plan is based on the land capabilities as shown on the conservation map. This ranch is operated in connection with your other ranches in this valley.

Irrigation water is obtained from the run-off water by the mountain streams and from an irrigation well.

SOILS

Four types of soils are present on this ranch and for the purpose of classification of the Soil Conservation Service, they are listed under the following symbols.

IIIs₃ (colored yellow) Soils under this symbol are characterized by being deep, heavy textured, and on nearly level slopes. Average depth is about 4 feet. Water intake rate is rather low, but water holding capacity is moderate to high. There is a slight wetness, salinity, and alkalinity condition present.

IIe₄ (colored yellow) The soil under this symbol is exactly the same as the soil described immediately above, except this soil is underlain by clay or gravel and the texture is medium.

IIIs₃ (colored pink) This soil is characterized by being moderately deep, heavy, medium and gravelly medium textured, and on nearly level slopes. Water holding capacity is low and water intake rate is slower than

normal. There is evidence of an alkali, salinity, and wetness condition. This soil is underlain by clay, hardpan, or porous gravel.

VI_{s1} (colored orange) This soil is commonly found in saline and alkali bottomlands. Usually there is a fluctuating water table present. Soil texture varies from medium to heavy. All plant growth is affected by the alkali, saline, and wetness condition.

III. Irrigation.

CONSERVATION NEEDS

1. The irrigation system is indicated on the conservation plan map. From the above soil classifications and from your desires on how to improve this ranch, the following conservation needs have been determined.

I. Noxious Weed Control.

II. Land Preparation for Efficient Application of Water.

III. Installing an efficient irrigation and drainage system.

IV. Cropping practices and treatments needed to increase and maintain forage reserves and soil productivity.

V. Pasture and range management practices to increase and maintain forage production and soil productivity.

Field Nos. 3, 4, 5, 6, and 7 acres each as headgates and drops about 100 Acres

Field No. 8 installed to properly control the water. 10 Acres

I. Noxious Weed Control.

1. All hay and pasture fields should be sprayed to control white top. At your request, assistance will be given by the County Agent or the District.
2. Grain crops can be grown during this control period because

IV. Grain herbicides are not injurious to grain.

1. The seedbed should be well prepared and firmed before seeding.

II. Land Preparation.

1. Clear brush on Field 8.
2. Smoothing should be done on Fields 3, 4, and 8, and light leveling through the winter. They should be harrowed and rolled the following spring before seeding.
3. New seedings should be about one-half inch deep and planted without a nurse crop.

III. Irrigation.

1. The irrigation system is indicated on the conservation plan map.
2. Corrugation or controlled flooding methods are adapted for these fields.
 - A. Corrugation method.
 - a. Length of run should not exceed 200 feet where small head of water is available. If a large head of water is available year after year, then runs may be extended to 400 feet.
 - b. Width between corrugations furrows should be about 18 inches.
 - B. Controlled flooding.
 - a. Length of run should not exceed 200 feet.
 - b. Width between turnouts should be approximately 20 feet.
3. The necessary structures such as headgates and drops should be installed to properly control the water.
4. Irrigation frequency should be about every 15 to 18 days. This is after crops are established.
5. The soil should be wet only to the root depth of the crop being grown. Depth of water penetration should be checked with a shovel or soil auger at the time of irrigation.

IV. Cropping practices, Seedbed Preparation, Mixtures, Crop Rotation, etc.

1. The seedbed should be well prepared and firmed before seeding.

2. When grain is grown it is suggested that seeding be drilled in second year grain stubble without a nurse crop.
3. When fields are plowed, it should be done in the fall and left through the winter. They should be harrowed and rolled the following spring before seeding.
 - Manchar smooth brome 6
 - Alta fescue 6
4. New seedings should be about one-half inch deep and planted without a nurse crop.
 - Orchard grass 4
 - White Dutch clover 1
5. Mixing seed with rice hulls at the rate of one bushel with enough seed for one acre will insure more uniform seeding and easier drill calibrations. The drill should be set to seed approximately one bushel of wheat per acre. At your request assistance will be given in using rice hulls for seeding.
 - Alsike clover 1
 - 12 pounds per acre

6. The following seeding mixtures and rates are suggested.
 - Fields 3 and 4
 - Manchar smooth brome 6
 - Alfalfa* 6
 - 12 pounds per acre

* Ladak variety of alfalfa is recommended for use where irrigation water is short and where the area is not infested with bacterial wilt. Ranger variety should be used where the area is infested with bacterial wilt.

Intermediate wheatgrass can be substituted for the smooth brome if you desire to do so.

- Fields 5, 6 and 7
 - Manchar smooth brome 6
 - Timothy 2
 - Mammoth red clover 4
 - Alsike clover 2
 - 14 pounds per acre

Field 8. For fields which have good growth of grass in the fall.

If enough water is available after the above fields are established, then this mixture is suggested for Field 8, which to start the next year.

Manchar smooth brome	6	
Alta fescue	6	
Orchard grass	4	
White dutch clover	1	
Alsike clover	<u>1</u>	

Field 1 and 2

100 Acres

V. Range Management

1. Where possible install a controlled flooding spreader ditch system on Field 9. This will not only allow you to utilize excess water but also the waste water that bacteria just before seeding. This will insure a better stand. will come from your hay fields above.

7. All legume seed should be inoculated with the proper strain of bacteria just before seeding. This will insure a better stand. will come from your hay fields above.

8. Where alfalfa-grass is being grown it is suggested that an 8 year rotation consisting of 6 years hay and 2 years grain be followed as near as possible. Where clover-grass is grown, a 10 year rotation may be used. at the present time.

9. Fertilizing

A. For alfalfa, treble superphosphate is recommended at the rate of 150 pounds per acre every other year after an initial application of 250 pounds per acre. when the ground is firm and important forage plants are ready. Move to second

B. Ammonia phosphate (10-20-0) is recommended to establish new seedings at the rate of 300 pounds per acre. All have been deferred long enough for the plants to have set seed. Therefore,

C. All available barnyard manure should be applied where and when possible.

D. It is suggested that the aftermath growth of hay be plowed salt away from water. Change salt locations frequently to avoid under as a green manure crop the last year of the rotation. over grazing in the areas near the salt and water.

E. Return all crop residue to the soil when grain is grown.

5. Fence as needed to assist in grazing management.

10. Hay fields should have 4 to 5 inches of growth left in the fall until after killing frost. This will give the plants a chance to store food in their roots from which to start the next years growth.

Field 2

No other use is planned for RANGE area.

Field 1 and 9

106 Acres

V. Range Management

1. Where possible install a controlled flooding spreader ditch system on Field 9. This will not only allow you to utilize excess early spring run-off on this field, but also the waste water that will come from your hay fields above.
2. It is suggested that a drainage ditch be constructed in Field 9 as indicated on the conservation map. This should lower the water table in the adjacent hay fields that are excessively wet at the present time.
3. Practice rotation deferred grazing in conjunction with the other range units not included in this plan.

This can be done by providing three or more pastures. Begin grazing in different pastures each year when the ground is firm and important forage plants are ready. Move to second pasture soon enough to give important forage plants a chance to grow and feed themselves, before growing season ends. By the time the stock are moved to the third pasture, it will have been deferred long enough for the plants to have set seed. Therefore, by this system you will have produced your own seed each year, and the stock will scatter and plant it.

4. To get a more even distribution of livestock and forage use, salt away from water. Change salt locations frequently to avoid over grazing in the areas near the salt and water.
5. Fence as needed to assist in grazing management.

TO* H&A L&EJ&S SPO&T&S P&S&S 7 20 2 T&S&S&S OF S&L&O&M&P T&S&S IN S&S&S

- 6. Grass production can be increased in Field 9 by reducing the brush with a brush beater.

FARMSTEAD

Field 2

1 Acre

No other use is planned for this area.