

Mendocino Co.
Historical

COOPERATIVE EXTENSION WORK IN AGRICULTURE & HOME ECONOMICS
U.S. Department of Agriculture and University of California cooperating
P.O. Box 359, Ukiah, California

HOW MUCH SULFUR TO USE

80 pounds of elemental sulfur is a maximum rate. This application should be adequate for maximum yield for at least two seasons.

SULFUR
The major increase in production in one season is based on 40 pounds of sulfur per acre. Applications of sulfate sulfur or gypsum should be restricted to 100 pounds per acre, when used for spring applications of sulfur.

ON SULFUR-DEFICIENT SOILS IN MENDOCINO COUNTY, SULFUR FERTILIZATION CAN:

- * More than double the production of range and pasture feed.
- * Increase production relatively cheaply. Cost of increasing feed on test ranches has been as low as \$1.20 per ton of increased feed.
- * Improve the quality of feed produced.
- * Encourage the growth of sub clover with a corresponding decrease in the percentage of weedy annual grasses.
- * Increase production in all agricultural sections of Mendocino County, as sulfur deficiencies are widespread in this county.

WHAT KIND OF SULFUR TO USE

- * Elemental soil sulfur produced the biggest increase in production per pound of actual sulfur.
- * Elemental soil sulfur is the cheapest source of sulfur.
- * Elemental soil sulfur lasted longer than any other source of sulfur tested.
- * Elemental soil sulfur smaller than 100 mesh produced maximum yields the first season. Coarser ground sulfur will probably last longer, so a combination of size particles will be desirable.
- * Sulfate sulfur is available to plants more rapidly than elemental soil sulfur is. Sulfate sulfur leaches readily. Gypsum is a common and cheap source of sulfate sulfur.
- * There is sulfur in many commercial fertilizers purchased for a source of nitrogen, or nitrogen and phosphorus. Sulfur can be a bonus in a fertilizer purchased for other nutrients.

Prepared by: William H. Brooks III, Farm Advisor

October 1953

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WHEN TO APPLY SULFUR

- * Elemental sulfur should be applied in the fall or early winter, as it doesn't leach readily, and must be changed chemically in the soil.
- * Sulfate sulfur can be applied in the fall, winter, or early spring, however it is generally recommended for spring applications.

HOW TO APPLY SULFUR

- * Elemental sulfur can be applied with a sulfur duster, or lime spreader type fertilizer spreader.
- * Gypsum used as a source of sulfur should be applied with a lime spreader.

WHERE TO APPLY SULFUR

- * In all agricultural sections of Mendocino County, sulfur deficiencies have been demonstrated.
- * Sulfur is of primary importance to legumes. Sulfur should be used on sub clover or bur clover range or pastures.

NOTE: Sulfur field research in Mendocino County has been developed cooperatively with Dr. M. B. Jones, University of California, Hopland Field Station.

Prepared by: William H. Brooks III, Farm Advisor

October 1963

Crellin Fitzgerald, Hopland

SULFUR PLOTS

Spring 1963

<u>TREATMENT</u>	<u>WHEN APPLIED</u>	<u>YIELD IN LBS/ACRE</u>
Unfertilized		2300
40 Lbs. Sulfur as Elemental	October 1962	5200
40 Lbs. Sulfur as Gypsum	October 1962	4600
40 Lbs. Sulfur as Elemental	October 1961	4300
40 Lbs. Sulfur as Gypsum	October 1961	3100
40 Lbs. Sulfur as Elemental	October 1960	3800
40 Lbs. Sulfur as Gypsum	October 1960	2700

BOONVILLE - BURNS RANCH

Forage yields of subclover-harding grass pasture and pounds of sulfur taken up by the plants in May 1962 when fertilized with different sulfur carriers in the fall of 1960 and 1961.

<u>Sulfur carrier</u>	<u>Year Sulfur Applied</u>			
	<u>1960</u>	<u>1961</u>	<u>1960</u>	<u>1961</u>
	<u>Yield* pounds per acre</u>		<u>Pounds S uptake per acre*</u>	
None	4,250	4,250	3.4**	3.4**
Gypsum	4,620	5,680	3.8	6.3
Single superphosphate	5,160	6,580	4.7	7.1
Elemental sulfur	5,900	6,710	5.2	9.6

* Yields and sulfur uptake values are averages of 10, 20, and 40 pounds S per acre rates of application for each of the carriers.

** This is about the amount of sulfur per acre that falls in the rain each year in this area.
