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Fred H. Tschirley

MESQUITE (*Prosopis juliflora* [Sw.] DC.)

(This is supplemental information on mesquite.)

Chemicals

On sandy soils in southern New Mexico and western Texas, individual plant treatments with fenuron pellets and monuron powder have consistently given high plant skills. Fenuron-trichloroacetate (TCA), monuron-TCA, and trichlorobenzoic acid are less effective.

Rate

Effective on sandy soils is an individual plant treatment of 1 gram of active ingredient of fenuron pellets or monuron powder for each foot of canopy diameter. The materials should be well scattered around the base of the plant.

Time of Application

Since these materials are desensitized by light and high temperatures, it is important that the materials be applied just prior to, or in the early part of, an expected rainy season.

General Considerations

This method is economical in controlling sparse stands (up to 75 plants per acre) of mesquite on sandy soils in southern New Mexico and western Texas.

Carlton H. Herbel

BLUE OAK (*Quercus douglasii* H.&A.)

Description and Occurrence

Blue oak occurs over several million acres of woodland-grass rangeland in California. The trees are 20 to 60 feet high and thrive on dry or rocky foothills of the Sierra Nevada and inner Coast Range. An excessive number of trees on a range unit reduces production and utilization of forage. Forage produced beneath the trees is less palatable to livestock than that produced on similar areas without trees. Cattle consuming large quantities of acorns may undergo impairment of health. Blue oak density or combination with brush and other trees may cover so much of the range that handling the livestock is difficult, and the grazable acreage is too low. A few scattered blue oaks may be advisable for shade in summer and for promoting growth of early winter forage by protecting annual understory plants. Basal sprouts usually appear when trees are cut.

Chemicals for Control

Foliage sprays have not given as satisfactory results as cut-surface treatment of the tree trunks. Amines of 2,4-D and 2,4,5-T were both effective and about equal when applied to cuts in the trunk. The ester of 2,4,5-T was appreciably more effective than 2,4-D (1). The amine of 2,4-D should be used, as it is cheaper and produces as good a kill as the other chemicals (1).

Rate, Volume, and Carrier

The amine of 2,4-D can be best applied undiluted, 4 lb. of acid equivalent per gallon. Cuts should be made horizontally by a hatchet or ax and spaced every 4 inches around the trees. Cuts should penetrate through the bark and into the sapwood. The chemical must be applied to the sapwood if good kills are to result (1). Cuts made near the ground are more effective than those higher on the trunk.