TECHNICAL NOTES
U.S. DEPARTMENT OF AGRICULTURE BERKELEY, CALIFORNIA SOIL CONSERVATION SERVICE

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IMPROVED METHOD OF SEEDING AND FERTILIZING CRITICAL AREAS

Establishing a vegetative cover in a critical area is sometimes rather difficult. The following method was used to establish cover on a 2:1 sloped streambank in the Walnut Creek Watershed. These seeding and fertilizing techniques could be useful in other areas. Some modification might be needed in the date of seeding and species, to fit in with your local conditions.

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The original banks were sloped to 2:1 and chisled to a depth of 6 inches parallel to the stream flow.

This provided a rough seedbed, reduced rill erosion, and absorbed more rainfall.

Fig. 1

Two and one-half tons of clean barley straw per acre was evenly distributed as a mulch with a combination chopper-blower which also blew an asphaltic emulsion onto the straw as it left the blower pipe. This emulsion tacks the loose straw together so that it will not blow away, and resists washing down the slope.

Fig. 2

Following the mulching procedure, a hydraulic rig with high pressure hose was used to apply seed and fertilizer mixed with water.

The area seeded amounted to 2,000 lineal feet of streambank, approximately 25 feet in height, totaling slightly more than one surface acre.

Seeding was done on December 1, 1959, at the rate of 30 pounds of LANA vetch and 15 pounds of grass seed per acre. One-third of the area was seeded to annual ryegrass, one-third to BLANDO brome and one-third to an equal mixture of both grasses, with LANA vetch being seeded over the entire area. Ammonium phosphate (16-20-0) was applied simultaneously at the rate of 500 pounds per acre.

The resulting growth was excellent, as can be seen in the picture taken on April 13, 1960 (fig. 4).

Fig. 3

Fig. 4

This method of seeding provided a uniform distribution of seed, fertilizer and straw mulch, which, under these conditions, would be more difficult to obtain by methods used in the past. Another big factor is the time element. The entire job was completed in less than eight hours.

This system of vegetative control has proved to be successful to the extent that it will be used in the future on similar jobs in the Walnut Creek Watershed. It is recommended that it be seriously considered for use in other streambank or gully control projects of one acre or more.