

PROGRESS REPORT
ALAMEDA COUNTY

Project Numbers _____
State Project No. _____
County Project No. _____

Name of Project: Pasture Fertilization Trials

Nineteen pasture fertilization plots were active--either for test, demonstration, or observation in 1950. These were in co-operation with Davilla & Fields, L. J. Tescher, and Herman Koopman, all of Pleasanton; Armand Bankhead, Joe Medina, Bertram Christensen, Cliff Wissler, and Chester Stanley, all of Livermore; Robert Zwissig of Irvington; J. L. Martin, Guy Warren, Lew Galbraith, and Andrew Garin, all of Hayward; Carl Zwissig and L. E. Silva of Decoto; John Coelho and Ed Chadbourne of Mission San Jose; H. W. Kolb of Dublin; and Bill Barnes of San Leandro.

The Zwissig plot, on irrigated pasture, and the Kolb plot, on dry land pasture, were micronutrient plots established in co-operation with the Experiment Station. There were no observable differences in these plots with one exception. At the Kolb plot, the nitrogen gave a boost to grass growth the past, or second, season. No harvestings were made. It was found that the yellow leaf mottling on Ladino clover at Zwissig's was due to a virus disease and not a nutrient deficiency.

Results from harvested plots on dry land were as follows:

1. In the Koopman and Bankhead plots, forage production was increased from 75 to 100 per cent by the addition of fifty pounds of nitrogen per acre. The addition of 400 pounds of treble superphosphate per acre or 400 pounds of gypsum per acre did not cause any significant increase in forage production.

2. In the Warren plot, the application of 50# of nitrogen per acre increased forage production approximately 25%. The addition of 400# of single superphosphate per acre or 400# of gypsum per acre caused no significant increase in forage production.

3. In the Galbraith plot, the application of 50# of nitrogen in 1949 increased forage production approximately 50%. Without additional fertilizer, growth in this plot was increased 25% in 1950. In 1949, nitrogen and phosphorus in combination increased forage production almost 100%. In 1950, with no added fertilizer, observations showed a smaller increase from this treatment. Yields, however, showed no benefit the second season after adding nitrogen and phosphorus together.

4. In the Chadbourn plot, 50# of nitrogen per acre increased oat and vetch production by nearly 100%. The addition of 400# of single superphosphate/a or 400# gypsum/a was of no benefit to forage production. The nitrogen response was in increased oat growth, with no increase in vetch growth.