

## NITROGEN APPLICATION TO ALMONDS

Warren Micke's experimental work in Chico uses application rates of zero, 1, 2, 4, and 8 lbs. of actual nitrogen per tree. The prunings take out about 10 lbs. per acre. The crop removes 90-120 lbs. of N per acre. Growth has been proportional to nitrogen application in this experiment. The number of blossoms per tree vary from 30,000 to 100,000 per tree. The number of nuts varies from 9,000 to 20,000 per tree. Pounds of nuts per tree have been as follows:

Zero N	-	36 lbs. per tree (1 ton of meats per acre)
1 lb. N	-	46 lbs. per tree
2 lbs. N	-	51 lbs. per tree
4 lbs. N	-	56 lbs. per tree
8 lbs. N	-	60 lbs. per tree

The low nitrogen applications seemed to allow more drop at the May period and then, during the next two years, it seemed to make no difference. His theory is that the trees were accustomed to high nitrogen applications and the low nitrogen rate caused deficiency the first year, then the trees adjusted. During 1977, they hope to be able to check the longevity of blossoms as related to nitrogen application.

Warren's evaluation is that leaf levels of 2% N are too low and they should be raised to 2.2 to 2.5%. In this orchard the zero nitrogen application showed deficiency within a few months after growth started the first year. This was following a normal orchard fertilization in the previous years. He recommends, at this point, that summer applications of fertilizer be made, followed by applications at the pre-bloom period.