

## COPPER DEFICIENCY IN AZALEAS

According to Dr. Roy Branson, Extension Soils and Water Specialist, and R. H. Sciaroni, Farm Advisor, copper deficiency in azaleas has been observed at two nurseries in San Mateo County. In the advanced stages of copper deficiency the new leaves on azalea plants are small and there is considerable leaf scorch on some varieties. The below listed varieties were most severely affected:

Snow	Coral Bells
Hino-Crimson	Greeting
Hexe	Duc de Rohan
Ballerina	Pink Champagne
Paul Schame	Pink Gumpo

The causes of copper deficiency are mainly: (1) peat contains only small quantities of copper and prolonged container culture without addition of copper can cause deficiency symptoms and (2) copper is generally not present in liquid fertilizer programs. Dry fertilizer materials commonly used in past years apparently supplied copper in sufficient quantities to prevent deficiency symptoms from developing.

Experiments were conducted to determine if copper-containing sprays would correct the symptoms. Spray applications of 0.2 lb. and 0.4 lb. of copper sulfate per 100 gallons of water applied to run-off appeared to correct the problem without injuring the plants. Severe foliage burn and even death of some plants occurred with spray applications containing 1- $\frac{1}{2}$  and 3 pounds copper sulfate per 100 gallons of water.

If copper deficiency is suspected, contact your farm advisor for additional information. Remember--it is safer to try small test plot treatments at first.

R. H. Sciaroni