North Carolina
Department of Agriculture

Agronomic Division
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NOTE 17: Peaches

Most peach orchards are located on the sandier soils of the south central region. Satisfactory performance of peach varieties depends to a great extent on the fertility levels established when the trees are set. In addition, fruit production can be extended several years by attending annually to the nutritional needs of the trees.

Establishment

The lime, P_2O_5 and K_2O recommended for peach-tree-orchard establishment are corrective applications that bring soil fertility into better balance. Magnesium (Mg) needs are usually satisfied by existing soil levels. However, if extra magnesium is recommended, you can apply magnesium sulfate (9.7%), sulfate of potash-magnesia (11%) or dolomitic limestone, if lime is needed.

Broadcast the lime and fertilizer, and plow as deep as possible. Proceed with the setting operation, but do not add more fertilizer. Too much fertilizer placed near the roots at setting is a common cause of the death of young trees.

Fertilize the young trees with a 1-1-1 ratio material in March. Broadcast 0.05 lb of N per tree (0.5 lb 10-10-10) in a circle starting 12 inches from the trunk and extending outward slightly beyond limb span. Repeat in May and again in July. Make the last application by mid-July to avoid excessive vegetative growth in the fall and possible cold injury in winter.

Maintenance

Nonbearing Trees

a. If you applied lime and fertilizer according to soil-test recommendations prior to setting, follow this fertilization schedule:

second year

- In March, apply 0.1 lb of N per tree from a 1-1-1 ratio material (1 lb 10-10-10).
- Spread the fertilizer in a circle starting 12 inches from the trunk and extending outward slightly beyond limb span.
- Every 6 to 8 weeks, apply a 1-1-1 or 1-0-1 ratio material at the rate of 0.1 lb N per tree (1 lb 10-10-10 or 12 ozs of 14-0-14). Continue these applications until mid-July on the sandier soils and until early June on the finer textured soils.

third year

- In March, apply 0.15 lb N per tree (1.5 lb 10-10-10 or 1 lb 14-0-14) in the same manner as previously described.
- In May and again in early July, repeat the same nitrogen application, or use 0.5 lb of NH_4NO_3 per tree in May and early July.

b. If you did not apply lime and fertilizer according to soil-test recommendations prior to setting, follow this fertilization schedule:

- Have the soil tested.
- Broadcast the recommended lime as soon as possible.
- In early March, broadcast 60 lb of N per acre along with any P_2O_5 and K_2O recommended.

Bearing Trees

Once trees begin to bear, fertility factors have a large impact on production as well as tree growth. Plant tissue analysis and soil testing together define fertility needs and indicate solutions much better than either alone. Soil tests indicate corrections needed in the soil. Plant analysis measures the effectiveness of fertilization and reveals less obvious nutrient shortages that directly affect performance and yield.

Apply lime, if needed, as soon as possible. If the magnesium level is questionable, use dolomitic lime. Broadcast all the P_2O_5 and up to 60 lb K_2O along with 40 lb N per acre in early March. If the trees are on deep sandy soil, apply 20 to 30 lb sulfur per acre to prevent a deficiency of this nutrient.

After fruit set, broadcast another 30 to 40 lb N and any additional K_2O needed. If fruit set is satisfactory, broadcast another 25 lb N per acre in early July. However, if new terminal growth exceeds 12 to 18 inches, omit the nitrogen in July. If you have planted cover crops, they may need additional fertilizer.

Boron

Peaches grown on sandy soils need about 0.5 lb boron per acre every 3 years. Because too much boron can be toxic, it may be safer to add boron to one of the spray solutions each year. To do this, add about 0.2 lb boron (1.8 lb 11% B or 1 lb 20% B material) per 100 gallons of spray solution.

Zinc

Deficiencies of zinc, commonly called "little leaf" or "rosette," occur in peach orchards on some of the sandier soils. In severe cases, the internodes at the end of the twigs are shortened and the older leaves may fall off leaving a clump or "rosette" of chlorotic younger leaves at the top of the shoots.

To correct or prevent zinc deficiency, apply 1 oz zinc per 100 gallons of spray (3 oz $ZnSO_4$) three times at 3-week intervals from May through July 15.

Continual use of excessive rates of zinc can lead to toxic levels in the soil that are difficult to overcome.

Additional information can be obtained from an NCDA regional agronomist or the local Cooperative Extension office.