

SOIL TEST INFORMATION SHEET NO. F-500

Prepared by Extension Horticulturist John Pyzner

Apples and Pears

1. **Nitrogen fertilization** rates should be based on a terminal shoot growth, variety and rootstock, pruning severity and cropping history. Terminal shoot growth should not exceed 8-12 inches on spur-types and 10-16 inches on standard trees with fall crops. In general, apply 0-50 pounds actual nitrogen per acre annually (0-.5 pounds per tree annually). The 0 rate is included for years following severe pruning or where shoot growth was excessive when it may be advisable to withhold nitrogen applications. In no case should nitrogen exceed 0.6 pound per tree for semi-dwarf and 1.0 pound per tree for standard trees. Nitrogen application can be split. Apply one half in March and the other half after the crop size is determined. The second application can be withheld if frost reduces the crop.
2. **Boron.** Apply boron annually to aid in reducing cork spot. Make a single application of Solubur at 1-2 pounds per 100 gallons (2-4 pounds per acre) at petal fall or first cover. If soil or plant analysis indicates that boron is low, apply 2-4 pounds of Solubur per acre during both petal fall and first cover sprays. Do not premix Solubur with calcium chloride.
3. **Calcium.** Apply calcium sprays annually to reduce cork spot and bitter pit. Apply in cover spray at the rate of 2 pounds calcium chloride per 100 gallons (maximum of 3 to 6 pounds per acre in each spray). Higher rates can cause foliage burn and should not be reapplied unless at least ½ inch of rain has fallen since the last application. If injury is noticed, reduce calcium chloride to one-half rate the following spray. Calcium nitrate can also be used at 3 pounds per 100 gallons (maximum of 4.5 to 9 pounds per acre each spray). Do not apply when temperatures exceed 90 degrees F.

Note: Late season cover sprays, particularly 2 to 4 sprays before harvest, are the most important for reducing bitter pit.

4. Nitrogen Fertilization

Non-bearing Trees- Apply .05-.15 pound actual nitrogen around each tree in March, April and May. An example would be applications of 1/3 to 1.0 calcium nitrate (or its equivalent) made at each of 3 months. Ground applications should not be made past June.

Trees Coming into Bearing- Excess vegetative vigor often delays flower initiation and can increase severity of cork spot. As trees attain bearing size, usually between the 4th to 6th years, reduce or omit nitrogen.

5. Contact your county agent for additional information and help in your fertilization program. The agent also receives a copy of this report for the parish office files.