

**Apples (non-bearing) (Code #117)**

Soil Test Rating	Potassium			
	Low K	Medium K	High K	Very High K
	Coast: 0-70 lbs/A Pied: 0-120 lbs/A	Coast: 71-170 lbs/A Pied: 121-250 lbs/A	Coast: 171-275 lbs/A Pied: 251-400 lbs/A	Coast: 275+ lbs/A Pied: 400+ lbs/A
Phosphorus	<i>Recommended Pounds N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O per Acre</i>			
<b>Low P</b> Coast: 0-30 lbs/A Pied: 0-20 lbs/A	*-60-60	*-60-30	*-60-0	*-60-0
<b>Medium P</b> Coast: 31-60 lbs/A Pied: 21-40 lbs/A	*-30-60	*-30-30	*-30-0	*-30-0
<b>High P</b> Coast: 61-100 lbs/A Pied: 41-75 lbs/A	*-0-60	*-0-30	*-0-0	*-0-0
<b>Very High P</b> Coast: 100+ lbs/A Pied: 75+ lbs/A	*-0-60	*-0-30	*-0-0	*-0-0

Coast = Coastal Plain    Pied = Piedmont, Mountain, and Limestone Valley

**Recommendations:**

Recommended pH:	6.0 to 6.5. If the pH is less than 6.0, see Lime Table B.								
Magnesium:	If soil test Mg level is low and lime is recommended, use dolomitic limestone.								
	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Coastal Plain</td> <td>Low: 0 - 60 lbs/acre</td> <td>Medium: 61 - 120 lbs/acre</td> <td>High: &gt;120 lbs/acre</td> </tr> <tr> <td>Piedmont</td> <td>Low: 0 - 120 lbs/acre</td> <td>Medium: 121 - 240 lbs/acre</td> <td>High: &gt;240 lbs/acre</td> </tr> </table>	Coastal Plain	Low: 0 - 60 lbs/acre	Medium: 61 - 120 lbs/acre	High: >120 lbs/acre	Piedmont	Low: 0 - 120 lbs/acre	Medium: 121 - 240 lbs/acre	High: >240 lbs/acre
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## **Fact Sheet:**

### **Nitrogen Fertilization**

**Non-bearing trees** - Apply .05 to .15 pounds of nitrogen (N) around each tree in March, April and May. An example would be applications of 1/3 to 1 pound calcium nitrate 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, careful nitrogen fertilizer management is needed to avoid overfertilization. Depending on variety and specific rootstock, plus numerous cultural practices, production typically begins between the 4<sup>th</sup> and 6<sup>th</sup> years for standard trees, 3<sup>rd</sup> to 5<sup>th</sup> years for semi-dwarf, and 2<sup>nd</sup> to 3<sup>rd</sup> years for dwarf trees. As bearing begins, terminal shoot growth should not exceed 8 to 12 inches on spur-types and 10 to 14 inches on standard trees with full crops. In general, apply 0 to 50 pounds of nitrogen per acre 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 0.3 pound per tree for dwarf trees, 0.6 pound per tree for semi-dwarf trees, or 1.0 pound per tree for standard trees. It is strongly recommended, especially in higher density orchards utilizing dwarf trees, that foliar analysis and soil testing be utilized to monitor nutrient status.

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.

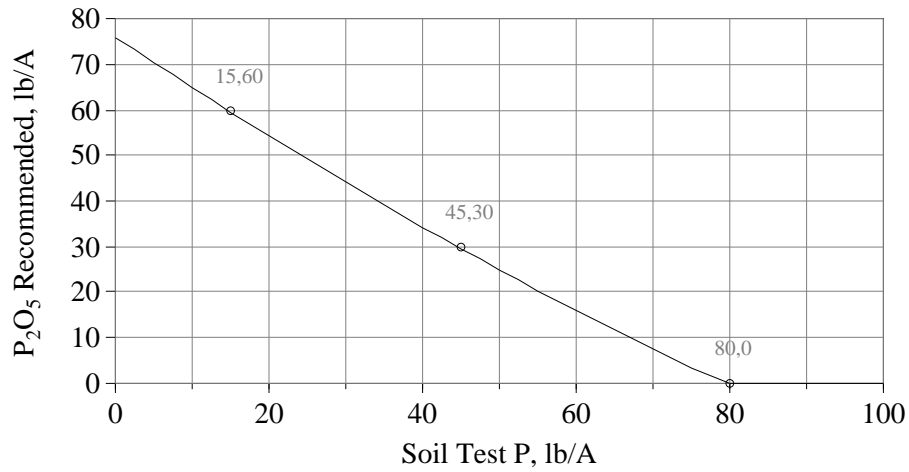
### **Soil Preparation Prior to Tree Planting**

Prior to planting trees, it is recommended that soil be sampled at two depths – 1 to 8 inches and 8 to 16 inches – to see if deep incorporation of lime, phosphorus, and potassium are needed.

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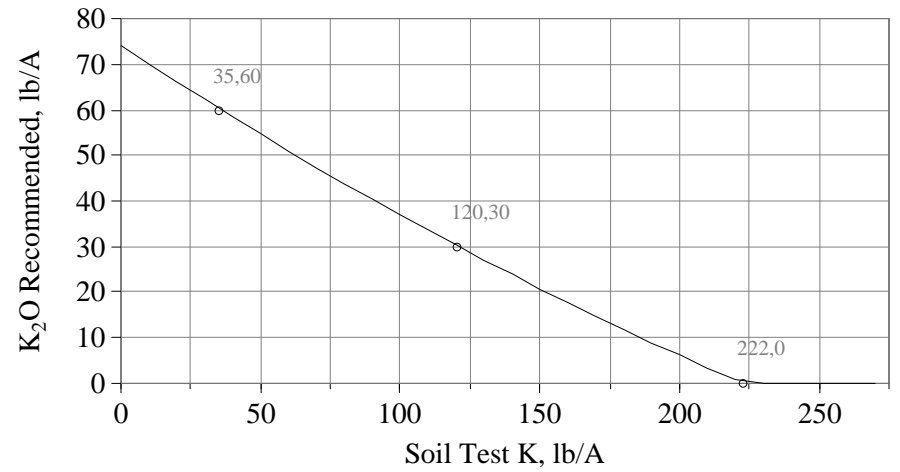
P Recommendations, Coastal Plain

$$P_2O_5 = 76 - 1.132P + 0.00220P^2$$



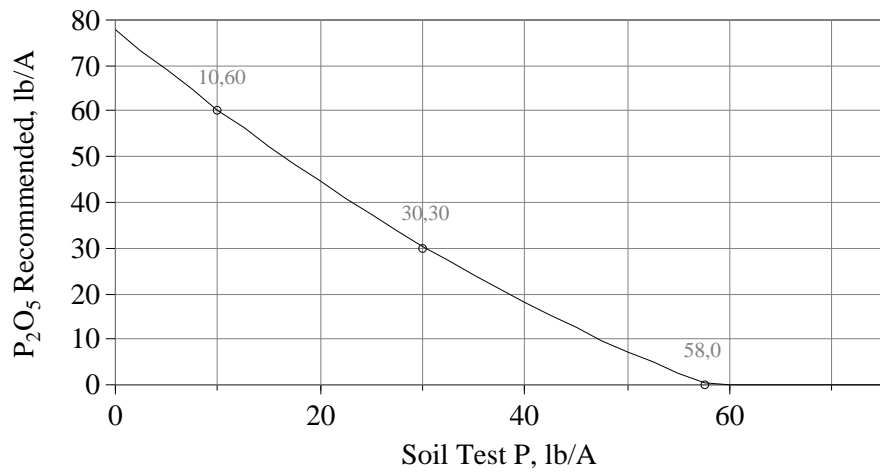
K Recommendations, Coastal Plain

$$K_2O = 74 - 0.403K + 0.00032K^2$$



P Recommendations, Piedmont

$$P_2O_5 = 78 - 1.844P + 0.00861P^2$$



K Recommendations, Piedmont

$$K_2O = 76 - 0.265K + 0.00010K^2$$

