



## ***COTTON - The First 40 Days ? ? ? Determines the future yield !***

***Traditionally Growers have put the emphasis on cotton at the fruiting stage.***

***Cotton \* responds to TLC at every stage of growth. Plants Drink & Feed Every Day!***

1. SEED BED PREPARATION - Most important be sure **no HARD PANS**, the TPSL soil test is designed to help determine hard pans. Subsoil tests can be as valuable as topsoil. Soluble Ca (H<sub>2</sub>O), Humus & Microbes are needed.
2. ROOTS must go deep to get moisture and nutrients to avoid short term stresses.
3. SEED selection to match your soil and management goals -- do not plant too thick -- **Sun on all leaves produce the most carbohydrates (sugars) for maximum amount of bolls to pollinate & develop.**
4. STARTER or POP-UP fertilizer near the seed at germination (**especially P**) **aids reaching the genetic potential** of the selected variety, balanced nutrition is also essential as are all BMP's..
5. KEEP NITROGEN BELOW 16,000 ppm Nitrate until blooms are pollinated. **Too much N too soon** increases cost and reduces yield potential - **grow bolls not stalks**. Major need for N & P starts at about 60 days of growth.
6. Grow SEEDS and the lint will follow. PHOSPHATE is the major need and then Nitrogen can only utilize about 10-12 lbs of actual N/acre per week.
7. CALCIUM & BORON are essential for **pollination - fruit set**.
8. BORON & POTASH are the **transport elements to move carbohydrate**, etc, from leaves to the fruit.
9. Balanced nutrition is essential to set maximum bolls in minimum amount of time, early maturity and increased water use efficiency. Potash is crucial at boll sizing.
10. Research shows **Water will be 3 - 8 times more efficient when nutrients are balanced.**



**ALL BEST MANAGEMENT PRACTICES** are essential for top yields. Water & Fertility are at the top of the list but insects, weeds, disease, etc must be managed to allow harvest. Early insect control is a must!

**Ask the Plant with TPSL's precision Petiole Testing Program** is the only way to know for sure that the plant has **what it needs in the right amount at the right time.** **Petiole test shows nutrients in sap for future growth.** This minimizes **input cost** until it is needed. Inputs must match goals for top yields.

***\* These principles apply to all crops.***

**START WITH A TPSL NATURAL SOIL TEST** that shows available nutrients calibrated to plant up-take.

**REPRESENTATIVE COMPOSITE SOIL SAMPLE-** Be sure to sample top soil at 0-12" for beds, gardens and field cultivated areas, or 0-6 inches for undisturbed (turf, pasture, con-til, etc.) areas- take several uniform cores (slices) from several random areas, put in a clean container (**be sure to include crust from soil surface-discard dry mulch**), thoroughly mix; then discard foreign materials (plants, rocks, etc.) and only send in **at least** a half pint **but not over 1 pint** of soil that is a composite of several cores thoroughly mixed that are representative of the **major root zone** of your growing area or the problem spot being sampled. --- **Also, furnish detailed history of soil treatments and crops on each area. If you see a difference (color-slope-texture-growth) it should test different.**

**SUBSOILS**, while most plant roots feed in the 4 to 12" depth, the next 12 - 24" may also be a major contributor. -- For the most accurate soil test recommendation, sample the topsoil (0-6" or 0-12") separately and then the next 12" increment of the subsoil. --- For trees and deep rooted crops go to 3 or 4' in 1' increments. Subsoils when run with topsoils cost about 1/2 as much as topsoil. Subsoil tests evaluate sustainability (mining, or building) for long-term performance. --- **Test Top and subsoil samples annually** to determine if mining or building-up of subsoils is occurring. --- Test 3' and 4' depth at 3-6 year intervals to check on the deeper rebuilding progress.