



## STOLLER ENTERPRISES, INC.

*...World leader in crop nutrition...*

### **PECAN PROBLEMS AUGUST DROP AND ALTERNATE YEAR PRODUCTION**

A common problem with pecan production is nut drop during the period of water movement into the nuts and the beginning of nut "meat" development.

During this period, the viable reproductive primordia (male) for the following year's crop is determined.

As the nut load on the tree is increased;

- Nut drop is greater
- Following year's production is reduced.

Growers have tried various methods of pruning and plant spacing techniques to cope with this problem. They have all met with limited success. Why?

This problem is caused by a massive change in the hormone balance of the tree. The amount of hormone change is caused by the number of nuts on the tree ... more nuts causes more drop and more injury to new bud primordia.

During the period of "water filling and meat formation", the tree undergoes a big shift of photosynthate movement ... away from the roots ... away from the new wood.

Each nut produces a massive amount of IAA during this period. IAA is a hormone that determines the direction of food movement. As the roots become more stressed, they cause ABA levels to rise in the plant. It is this hormone that causes nut abortion and primordia (for next year's crop) damage.

These are two possible solutions to this problem:

1. Reduce the movement of IAA out of the nuts.
2. Reduce ABA in the plant.

If successful, it will greatly reduce nut drop and alternate year bearing.

Do other nut trees have the same problem?