

Preparing Florida groves for *hurricane* season

By Bob Rouse

Hurricane prognosticator William (Bill) Gray, director of the Tropical Meteorology project at Colorado State University and often called the world's most famous hurricane expert, released his predictions for the 2007 season in April. His prediction is for a very active Atlantic hurricane season and is an eerie echo of last year's forecast. His 2007 forecast includes 17 named storms, including nine hurricanes, of which five will be major storms (category 3 and above) with winds exceeding 110 mph. He predicts a 74 percent chance of a storm striking the U.S. coast between Maine and south Texas, with a 50 percent chance a major hurricane will hit the east coast, including Florida.

Gray's and all the other major hurricane predictions were wrong the past two years. The prediction for 2007 is the same as last year (2006), when we had only 10 named storms, including five hurricanes, of which only two were major. None hit Florida, and all we had was a tropical storm named Ernesto that brought us some rain.



Hurricane toppled trees

In 2005 and 2004, predictions were way off the mark, predicting only a few storms. In 2005, we had a record 28 named storms, of which Wilma caused considerable fruit and some tree loss in October. In 2004, we had five hurricanes cross the state; the three impacting citrus were Charley (August), ripping the Gulf Coast up through Central Florida, and Frances and Jeanne (September), which devastated east coast groves.

Predictions have no bearing on what growers must do. We must prepare, regardless of whether the prediction is for 17 or 50 storms. Little can be done to protect trees and fruit from hurricane velocity wind, but steps can be taken to protect the people, equipment and supplies that will be needed in the recovery process. As citrus grove owners and managers, we should have a checklist by now and be checking it twice.

HURRICANE PREPARATION CHECKLIST

Personnel assignments:

1. Make a list of all tasks that will need to be performed and make assignments.
2. Update list of the members of the damage inspection team.
3. Know how to contact workers and ensure that they have a way to call in after the storm.

Safety training:

Train workers in the safe operation of unfamiliar equipment they may have to use. Example: Drivers may have to use chain saws to remove downed trees blocking roads.

Insurance:

Buildings, equipment including tractors, irrigation, and supplies may be damaged.

Liquid tanks:

1. Fuel, fertilizer and other tanks should be kept full so they don't move in the wind.
2. Ensure sufficient fuel is available for the recovery efforts.

Roads and ditches:

1. Roads should be secure and ditches kept clean and pumped down.
2. Arrange with a flying service to transport the grove manager to survey grove damage.

Emergency equipment:

1. Test run generators, chain saws, torches, air compressors and other equipment.
2. Have shovels, slings, fuel, paint, and equipment parts available in good repair.
3. Know where to obtain backhoes, front-end loaders, and other large machines.

Communications equipment:

1. Ensure that radios are in good working order.
2. Have hand-held portable radios with extra charged battery packs available.
3. Direct truck-to-truck radio and cellular phones save valuable time during the recovery.

Hazardous materials:

1. Hazardous materials should be secured prior to a storm.
2. Gasoline pumps should be shut down.

Emergency contacts:

Emergency phone numbers, including electric companies and sheriff.

Cultural practices:

1. Regular pruning can reduce broken limbs and prevent trees from being toppled or uprooted.
2. Windbreaks reduce tree damage and movement of the citrus canker bacterium.

HURRICANE RECOVERY CHECKLIST

Damage inspection:

Make a visual assessment of the damage and determine

priorities and equipment needed.

Prioritize damage:

A priority plan can quickly determine where to begin recovery operations.

Employee call-in:

When safe, call in those needed for damage inspection and grove recovery work.

Clear road access:

Clear roads to where trees must be reset or recovery activities must be conducted.

Water removal:

Remove excess water from tree root zones within 72 hours to avoid feeder root damage.

Tree rehabilitation:

1. Resetting trees to an upright position should be accomplished as soon as possible.
2. Toppled trees should be pruned back to sound wood.
3. Painting exposed trunks and branches with white latex

paint helps prevent sunburn.

Irrigation:

Check the irrigation system as rehabilitation is a long process and water is most critical.

Fertilizer:

1. The major fertilizer elements should be applied when new growth begins.
2. Reset toppled trees will require less fertilizer due to reduced root system.
3. Reduce N fertilizer to remaining trees proportional to canopy or leaf loss.
4. The following year, trees may require more than normal rates to re-establish canopy.
5. Micronutrients should be applied in nutritional sprays to the leaves.

Weeds:

Row middles mowed and herbicide applications resumed on a normal schedule.