



# Horticulture

## Salvaging Hurricane-Damaged Tropical Fruit Trees

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Here's what to do to save damaged trees after tropical storms and hurricanes.

Take all the pictures you can of the damage done. This will be used for USDA-FSA crop and tree damage payment programs.

### **A. Recovering Large Fallen Trees**

#### **1. Cover exposed roots**

Until the tree is reset, make every effort to protect the exposed root system and prevent it from drying out. Cover exposed roots with soil, moist burlap sacks, moist sphagnum moss, mulch, brush or tarp.

#### **2. Cover the trunks and major limbs**

Covering trunks and limbs will slow dehydration by providing shade. The idea is to shade the trunk and major limbs so they do not overheat and die. Cover them either by

- a) using detached brush and limbs, tarps, etc.
- b) or spray sun exposed surfaces with a 50/50 mixture of white latex paint.
- c) or make a mixture of slaked lime (also called hydroxide and hydrated lime,  $\text{Ca}(\text{OH})_2$ ). Mix 50 lbs. slaked lime plus 10 lbs. of zinc oxide in 100 gallons of water.

#### **3. Pruning**

For large trees that have fallen over but still have some root systems in the ground and have leaves, prune back  $\frac{1}{2}$  to  $\frac{2}{3}$  of the canopy to reduce the water loss from the tree. Always make clean, even cuts.

#### **4. Standing up the trees**

To stand up toppled trees that have part of the root system in the ground you want to reset the trees back in the same level they were before

- a) pull back soil from the area where the roots came out of the ground.
- b) you may need to cut off some badly broken roots but try to leave as much as possible
- c) cut back the top of the tree. The larger the tree the more you may need to cut in order to reduce the weight and pull the tree up. Also, if it has leaves, you need to remove part of the canopy to reduce water loss, and
- d) pull the tree up using a cloth or rope sling and a tractor or backhoe. Do not use wire or chains as these may break and be very dangerous, and
- e) once the tree is set up, place one or more Y-shaped limbs onto the trunk to steady the tree
- f) back fill with soil to cover the roots. Firm the soil around roots to help to eliminate air pockets and provide support. An excess of soil over the normal root area can be damaging, thus, only replace soil that has been washed or worked away from the roots. Finally,
- g) water-in.

## **B. Recovering Small Fallen Trees**

Stand them up as soon as possible, immediately would be best.

### **1. Cover exposed roots**

If you cannot stand them up immediately cover exposed roots as described above.

### **2. Cover the trunks and major limbs**

- a) if they have leaves, remove 1/3 to 2/3 of the canopy, and
- b) if no leaves, try not to remove limbs.
- c) use the removed branches and foliage to cover the trunk and major limbs

### **3. Standing up the trees**

Use the same procedure to stand them up as described above.

## **C. Watering**

- a. For trees with a lot of leaves, remove 1/3 to 2/3 of canopy to reduce water loss. Reduce the amount of water normally given but water more frequently.
- a. For trees with a few leaves, whether standing or fallen over, leave the canopy alone.
- b. For trees with no leaves, once the trees have been reset (stood up), create a well around the tree. However, after doing this, limit watering the trees with no leaves because over watering may cause rotting of the roots.

## **D. Fertilizing**

- a. For trees still standing with leaves, fertilize normally.
- b. For trees still standing with few to no leaves or with some of the leaves cut off by pruning, reduce the amount of fertilizer by the percent canopy not present. For example, if half the leaves are gone, reduce fertilizer rate by 50%. However, as new leaves begin to come out, use small amounts of fertilizer frequently.
- c. For trees that fell over and are now stood up but with no leaves, wait a few weeks until you see new leaves before you begin to fertilize. When this happens, fertilize frequently but with a small amount of fertilizer.

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