

# Fruit and Nuts – Homeowner

## Pecan Spray Schedule for Yard Trees and Home Orchards

Insects and diseases can reduce the quantity and quality of pecans harvested from yard trees by homeowners. Insects and diseases also can have a negative effect on the overall health and vigor of the trees, thus affecting their value as shade trees.

### Pest identification

It is important to learn how to identify the major insect pests and diseases of pecans. Knowing which insect pest is present will determine what insecticide to use. If an insect pest or disease is not present, control measures are unnecessary.

### Cultural practices

Pecan trees that are healthy and vigorous are less susceptible to certain types of insects, such as wood borers. Proper fertilization, watering, and pruning are conducive to optimum tree growth and health. Keeping the area around the tree free of old and aborted nuts, leaves and twigs and limbs will also help in reducing insect and disease problems.

### Spray equipment

Good spray coverage is essential for insect and disease control. It generally is not practical for homeowners to spray trees that are more than 30 feet tall since the spray equipment necessary to use on trees of that height or higher is quite expensive. Hose-on sprayers can be used on trees up to 30 feet tall. A commercial applicator can be used; however, it can be expensive if multiple pesticide applications are required.

### Pesticide safety

When purchasing and using any pesticide, be sure to read the label. The label will tell you what the active ingredient is and its relative toxicity, safety precautions when using the pesticide, what it's labeled for and what rates to use, and how to properly dispose of the empty container. To avoid accidental injury or death, always keep the pesticide in its original container.

### Suggested materials (listed as active ingredients)

- Malathion 55% EC
- Carbaryl 23.7% (liquid formulation, not dust)
- Imidacloprid 1.47% (applied as soil drench)
- Spinosad 0.5%
- *Bacillus thuringiensis* (B.t.)
- Horticultural Oil Spray (80%-97% oil emulsion)
- See label for correct rates to use.

### Spray periods

- **Dormant (late winter)** – Apply dormant oil before bud break in late winter for control of scales.
- **Bud Break** – Pecan Phylloxera. This spray should be applied when the opening buds are 0.75-1.0 inches in length (leaves expanding and starting to unfurl). Spraying for this insect is unnecessary if galls formed by pecan phylloxera have not been observed. Use Malathion for control of this insect.
- **Pollination** – Pecan Nut Casebearer. This spray should be applied around May 10-15 (about 5 days earlier in south Louisiana). Pheromone traps can be used to detect casebearer activity and to determine if treatment is necessary. For information on the use of pheromone traps and a degree day model for making treatment decisions go to <http://pecanipm.tamu.edu>. Go to the toolbox and click on the section on insect monitoring and control. Use Malathion, Spinosad, or *Bacillus thuringiensis* for casebearer control.
- **Post-Pollination** – Pecan Nut Casebearer and Aphids. This spray, if necessary, should be made around June 20, or about 6 weeks after the pollination spray. Use pheromone traps to determine if casebearer is present; if not, treatments are unnecessary. Insecticides for casebearer control are the same as those listed for the pollination spray. For aphids use imidacloprid applied as a soil drench.
- **Half-Shell Hardening** – Pecan Weevil, Hickory Shuckworm, and Fall Webworm. This spray is usually applied in mid-August. If hickory shuckworm is a problem, two sprays, one applied in mid-August and a second spray applied approximately 2 weeks later, will usually control shuckworm. Raking up and destroying old pecans and shucks will also help control hickory shuckworm. For hickory shuckworm use carbaryl, Spinosad, or *Bacillus thuringiensis*. For pecan weevils, use carbaryl. The first application should be made when nuts enter the dough stage and weevils are present around August 20. If infestation levels are high, an additional 1-2 applications, applied 10-14 days apart, may be needed. On tall trees, thoroughly spraying the trunk and lower limbs can suppress pecan weevil. Use spinosad or *Bacillus thuringiensis* for control of fall webworm. Spray web and surrounding foliage. Fall webworms can also be controlled by removing (where practical) the webbing and enclosed caterpillars from the tree.

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## **Fire ant control**

Many different types of insecticides are available for the control of fire ants. These products can be applied directly to the mound as contact insecticides or drenches, or they can be broadcast as bait to the area around the mounds. For a comprehensive listing of insecticides that can be used for fire ant control refer to the section, Louisiana Recommendations for Control of Insects on Lawns, in the Louisiana Insect Pest Management Guide.