

Homeowner Pecan Insect and Disease Control

Insects

Phylloxera

Phylloxera is an aphid-like insect that causes tumor-like galls or growths on the stems and leafstalks of pecan trees. These growths usually are large enough to notice by late May or early June. If infestations of these insects are moderate to high, pecan production is severely cut, and successive yearly infestations reduce the life of the tree. The only control is an insecticide application, and the timing of this application is very important. Apply the insecticide at or shortly after bud break. If new stem growth reaches 1 inch long or longer without an insecticide application, some damage may have occurred.

May Beetles

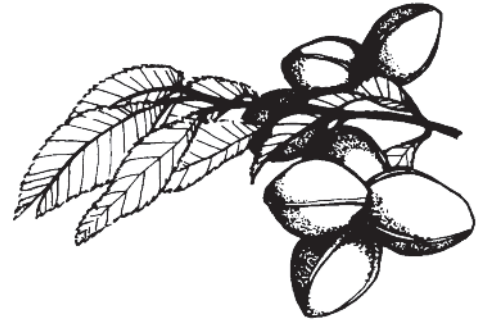
May beetles are brown beetles that feed on leaves at night in May and June.

Pecan Weevils

Pecan weevils are light brown or grayish beetles about 1/2 inch long with long beaks. The weevil is called a grub in its young stage and spends its time inside the nut feeding on the kernel. When the grub comes out to enter the soil, it leaves a 1/8-inch round hole in the nut. The time the adults emerge from the soil may vary, but it is usually in late July or early August and lasts into September. Egg laying starts with shell hardening. Begin control measures when after emergence, when the shell begins to harden. Make at least four applications one week apart.

Walnut Caterpillars

Walnut caterpillars are black with long, soft hairs. They feed in colonies on leaves.



Fall Webworms

Fall webworms are hairy, pale-yellow caterpillars up to 1 1/4 inches long that feed on leaves in large, white webs in summer.

Yellow Pecan Aphids

Yellow pecan aphids are soft-bodied, yellow to green sucking insects that occur on the underside of leaves. They produce and secrete honeydew from their bodies. The honeydew drips onto the leaves below, giving them a shiny appearance. Leaves later become blackened by sooty mold.

Black Pecan Aphids

Black pecan aphids are small, black, sucking insects. They cause bright-yellow spots on leaves that later turn brown, and they cause leaves to shed. They may cause severe damage and shedding of leaves from July to September.

Twig Girdlers

Twig girdlers are very destructive to young trees. They lay eggs on twigs and branches that become girdled and fall from the trees.



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Other Pests

Other pests of pecans include pecan nut casebearers, leaf casebearers, spider mites, obscure scale, shuckworms, and spittle bugs.

Diseases

Scab Disease

Scab disease is a fungus that causes damage on susceptible varieties, especially during rainy seasons. Pecan varieties most seriously affected include Schley, Mahan, Success, Van Deeman, and Stuart. The fungus lives through the winter on leaves, shucks, and twigs. The disease attacks the young leaves then spreads to the small nuts. Black, sunken spots on the leaves and the nuts may become so numerous the entire surface is covered. Severe leaf and nut infections cause shedding of both.

Leaf Spot Disease

Leaf spot diseases are caused by several different fungi that cause leaves to shed.

Cultural Controls

Twig Girdlers

Pick up and burn twigs and branches in the fall to reduce damage the following year.

Sanitation or Destruction

Sanitation or destruction of leaves, shucks, and faulty nuts under trees each winter will help reduce damage from scab and leaf spot diseases, shuckworms, and other pests.

Pecan Insect and Disease Control Spray Schedule

Because of economics and equipment requirements, it is often not feasible to spray pecan trees in urban environments. When fungicide applications can be made on a full-season basis, follow the schedule below. If only one or two fungicide sprays can be made in a season, apply at 1st or 2nd cover.

Time of Application	Insect or Disease Controlled	Insecticide/Fungicide Mixture Amount in 10 Gallons Water	Restrictions and Remarks
1st Cover When buds begin to show green and	Phylloxera, scab, leaf casebearer, spittle bug	Sevin 80 S – 12.5 tbsp PLUS Topsin M 70W – 7 tbsp. Also, various copper fungicides are approved to control scab and other fungus diseases.*	Do not let meat or dairy animals graze in treated pecan orchard.
2nd Cover 10 days from above	Same as 1st cover	Use same spray mixture given for 1st cover.	Early fungicide sprays are very important for scab control.
3rd Cover 3 weeks from above	Scab, nut case-bearers, aphids, and spittle bugs	Malathion 5 EC – 9.6 tbsp PLUS fungicide from 1st cover spray.	Use malathion only if stated insects are present during the cover sprays.
4th Cover 3 weeks from above	Scab, powdery mildew, downy spot, and brown leaf spot	Use same spray mixture given for 3rd cover.	
5th Cover 3 weeks from above	Scab, powdery mildew, downy spot, and brown leaf spot, aphids, and spittle bug	Use same spray mixture given for 3rd cover (omit fungicide if no nuts present).	
6th Cover 3 weeks from above	Same as for 5th cover plus fall webworm, pecan weevil,** and shuckworm	57% malathion EC 9.6 tbsp PLUS carbaryl (Sevin) 80% sprayable – 12.5 tbsp PLUS fungicide from first cover (omit fungicide if no nuts present).	
7th Cover 3 weeks from above	Fall webworm, black aphid, and pecan weevil	Use same spray mixture given for 6th cover.	Same as for 6th cover.

tbsp = tablespoon(s)

Note: *Tank mix Topsin M 70W with fungicides of different chemistry such as copper products to avoid development or resistant strains of the scab fungus.

**If weevils are present and shells are hardening, make two applications of carbaryl (Sevin) one week apart between the 6th and 7th cover sprays. The two additional sprays one week apart plus the 6th and 7th cover sprays give the needed four sprays for the pecan weevil.

At the time of printing, recommended pesticide uses were on the labels. Follow the label on the product you are using. Use only if the crop, pest, or specific use is mentioned on the label.



By Revised by **Dr. David M. Ingram**, Extension Professor, from an earlier version by Dr. James H. Jarratt and Dr. Frank Killebrew.

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