piles, or debris. Reduce high moisture levels in crawl spaces with a vapor barrier such as plastic sheeting. Repair all leaking pipes, gutters, and downspouts.

If you cannot correct moisture conditions, replace badly damaged timbers with lumber pressure-treated in accordance with the specifications of the American Wood Preserver's Association. Pressure-treated lumber gives the greatest protection; most dealers can order it for you.

If treated wood is not available, applications of wood preservatives by flooding or soaking will give some protection. When you find or make cuts in pressure-treated wood, flood them with wood preservative.

Remove scraps of lumber from the crawl space beneath the house. Remove wood used in construction of forms for concrete piers or foundations. Pieces of wood like this may be the focal point from which termites may later progress to other parts of the building.

Suggestions for homeowners

If you suspect the presence of dampwood termites, first of all, don't become alarmed. Get the facts before you contract to have an expensive job done. Have the insects and their damage identified. You can take them to your county agricultural Extension agent, who may send them to the Department of Entomology, Oregon State University.

You can correct some termite situations at little cost. Other situations may require extensive replacement of wood or structural changes. If you decide that you need professional help, deal with an established, reputable contractor or pest control operator in your community.

Precautions in using insecticides

- Read manufacturer's label carefully.
- Avoid contaminating food.
- Do not use household sprays near an open flame.
- If household sprays get on asphalt tile floors, wipe up immediately.
- Store all insecticides out of reach of children and pets.

Controlling Dampwood Termites

Description

Pacific dampwood termites, Zootermopsis angusticollis (Hagen), are found in western Oregon. They often occur in stumps, fallen trees, and old logs; they may invade houses and other buildings. Dampwood termites usually gain a foothold where timbers are in direct contact with the soil, but they may occur where wood stays wet from poor drainage or faulty plumbing. Their presence frequently indicates that a more serious structural fault exists, caused by moisture and rot.

Termites are insects that have simple or gradual metamorphosis. That is, the eggs hatch into nymphs, similar to adult termites except for size. The whitish or cream-colored nymphs (figure 1) do the work of the dampwood termite colony. This species of termite does not have a worker caste.

You can easily recognize the soldiers of the termite colony by their pair of long, dark-colored mandibles (figure 2). The soldiers protect the colony from attack by other insects.

The winged, reproductive caste includes both males and females. These are frequently seen in the late summer and early fall evenings, particularly after the early rains, when...
they are often attracted to lights. The winged forms are brownish in color and nearly 1 inch long. Both pairs of wings are of equal length and about twice the length of the body (figure 3).

Be sure of identification
Winged ants are sometimes confused with termites but can be readily distinguished from them. The ants' two pairs of wings are of unequal length. Ants also have the typical constricted, wasplike waist; termites do not (figures 4 and 5).

Carpenter ants are large black ants that commonly mine in logs, stumps, and hollow trees. They become pests when they move indoors. Sometimes the damage they do is confused with that of termites. Carpenter ants bore in wood to provide living quarters, but they do not feed on it. They expel their borings as sawdust from their mines.

In contrast, termites consume the wood in which they live; hence, no sawdust marks their presence (figure 6). If carpenter ants are a problem, Oregon State University Extension Circular 627, Carpenter Ant Control, is a useful publication.

The subterranean termite occurs in the Willamette Valley and throughout eastern Oregon, but its habits are different from those of the dampwood termite. The winged forms of this species are much smaller than the dampwood termite and are black in color.

U.S. Department of Agriculture Home and Garden Bulletin No. 64 deals with the control of this species of termite. You can obtain it from your county Extension office or by writing directly to Entomology Department, Oregon State University. Protect Your Home Against Decay and Insects is another useful publication available through the

Forest Research Laboratory, School of Forestry, OSU, or the Department of Entomology, OSU.

Dampwood termites are associated with wood decay, and they are most damaging where timbers are moist and poorly ventilated. Their nests are in the wood itself and not in the soil. Damage is usually to buildings that have been standing for a number of years.

The presence of an occasional winged termite about the home during the migratory period should not necessarily cause alarm unless there is evidence of termites having emerged from the building. Large numbers of winged termites appearing around the outside edges of the home may indicate the presence of a colony in siding or understructure. Winged termites may emerge through flooring, indicating an active colony in supporting timbers.

Control methods
Dampwood termite control is primarily a problem of moisture control. Inspect buildings and correct the conditions that permit infestations. Some of the more frequently encountered problems are poor ventilation under buildings because of too few or blocked crawl space vents; leaking pipes, gutters, or downspouts; and poor soil drainage under buildings and crawl spaces. Try to eliminate all moisture problems.

Maintain adequate ventilation under homes or buildings by providing a sufficient number of crawl space vents. Eliminate obstructions to existing vents such as plants, wood
piles, or debris. Reduce high moisture levels in crawl spaces with a vapor barrier such as plastic sheeting. Repair all leaking pipes, gutters, and downspouts.

If you cannot correct moisture conditions, replace badly damaged timbers with lumber pressure-treated in accordance with the specifications of the American Wood Preserver's Association. Pressure-treated lumber gives the greatest protection; most dealers can order it for you.

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This publication was prepared by Ben Simko, Extension pest management specialist, and Joe Capizzi, Extension entomology specialist, Oregon State University.

Extension Service, Oregon State University, Corvallis, Henry A. Wadsworth, director. This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture, and Oregon counties.

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