ゆゆじゅうしゅうしゅうしゅうしゅうしゅうしゅう

BULLETIN OF THE UNIVERSITY OF UTAH

Volume 30

December 27, 1939

No. 8

The Termite Problem in Utah

BY

DON M. REES and ARDEN R. GAUFIN

Department of Biology, University of Utah



BIOLOGICAL SERIES, Vol. V, No. 5



PUBLISHED BY THE UNIVERSITY OF UTAH SALT LAKE CITY THE UNIVERSITY PRESS UNIVERSITY OF UTAH SALT LAKE CITY

The Termite Problem In Utah

By

DON M. REES AND ARDEN R. GAUFIN

Department of Biology, University of Utah

Termites or "white ants" are present in all parts of Salt Lake City and are generally found in other cities and towns throughout the state. Three different species of termites have been found in Utah: *Reticulitermes tibialis* Banks, *Reticulitermes tumiceps* Banks, and *Kalotermes minor* Hagen. *Reticulitermes tibialis* Banks, *the common termite* found in Utah, is subterranean or "ground nesting" in habit and cannot live without moisture, which it obtains from the soil. This termite feeds almost entirely on wood or wood products. In Salt Lake City it has been observed feeding on the roots of several different kinds of growing shrubs and trees, on stumps, logs, posts, boards, paper, etc., as well as in the wood structures of many different types of buildings. The number of buildings infested with termites in the larger cities of the state seems to be increasing each year and the problem of termite control is gradually confronting a greater number of property owners.

HOW TO RECOGNIZE TERMITES

Termites live in large ant-like colonies and are so similar in size and form to common ants that the two are frequently confused. The worker and soldier termites are creamy white in color, but the winged forms or "reproductives" are dark colored like certain winged or "flying" ants. However, ants can always be distinguished by their narrow "wasp like waist", a character never present in true termites.

HOW TO LOCATE TERMITE DAMAGE IN BUILDINGS

Frequently the first indication of the presence of termites in a building is the emergence of winged migrating males and females. Incidentally, the destruction of these swarming reproductives, while a good thing in preventing the establishment of new colonies, does not in any way stop the damage of the parent colony.

In inspecting a building for termites, the warm, dark corners in the basement and other spaces beneath the building should be examined, especially around the heating plant. The presence of termites is revealed by their branching shelter tubes, made of earth mixed with wood, which may extend over the surface of the building structures, or by the presence of dust like frass and earth which is thrown out of crevices where the termites are at work.

HOW TERMITES GET INTO BUILDINGS

From early spring until fall, when weather conditions are favorable, winged males and females may swarm from the nest. These reproductives make short flights, drop to the ground, and lose their wings. If successful, a mated pair then establish a nest in the ground in contact with the nearest wood supply, which may be part of a building. The queen from now on remains in the ground nest, producing great numbers of eggs which develop into the workers which attack the wood. Termites may enter a building through any wooden structure in contact with the ground; they may also reach the wood in a building through cracks or holes in rock, brick, or cement foundations or by bridging over the foundation structures with shelter tubes running from the ground to the wood.

BUILDING TO PREVENT TERMITE DAMAGE

Building specifications as adopted by the Federal Housing Administration insures reasonable protection against termites. These specifications can be strictly followed with but slight additional cost to the home owner and should be adopted by all builders.

The U. S. Department of Agriculture recommends that where possible, "all wood should be eliminated from foundation, cellars, and basements, including porches, sun parlors, etc., with the substitution of masonry or concrete, and this should apply both to houses of masonry construction and those having a wood superstructure."

However, in this state wood may be used with safety as supporting structures in basements, as long as the wood is completely protected from the soil by concrete.

Metal termite shields provide additional protection when installed around the top of masonry foundations and supporting pillars. The shields should also be installed around piping, etc., which penetrates the foundation from the ground.

HOW TO STOP TERMITE DAMAGE

The most effective and permanent means of controlling termites in a building is by tightly and completely sealing the basement with concrete and thus preventing any wood from coming in contact with the ground. This sealing method also prevents termites from reaching the wood through openings in the foundation.

Reconstruction of this type breaks the contact with the ground and shuts off the soil moisture supply essential to the life of termites and the termites that remain in the wood of the building soon die. In addition, other termites are unable to enter the building from the ground nest.

If the use of concrete is impracticable, the wood in contact with the ground should be thoroughly treated with coal-tar creosote applied according to a standard pressure process. The use of fumigants or soil poisons for termites is generally not effective as a permanent control measure, but where other methods are impracticable or too expensive, certain soil poisons can be used that are of temporary value in termite control.

Crude orthodichlorobenzene, and a mixture of two parts of fuel oil to one part of trichlorobenzene are two of the more effective poisons. These insecticides should be used at the rate of one gallon to ten cubic feet of soil. The earth near the termite nest should be dug up, the poison applied, and the soil replaced. Care should be taken not to apply too near growing plants as the plants may be injured. If the poison is used in a basement or other closed quarters, obtain as much ventilation as possible and do not remain any great length of time in the place where these substances have been used, as the fumes are slightly toxic to man.

When poisonous insecticides are used, it is usually advisable to hire a competent Insect Pest Exterminator when such services are available.

References

U. S. Dept. Agr., Farmers Bull. 1472, 1937, and Leaflet 101, 1936. Conn. Agr. Exp. Sta. Bul. 382, 1936. Kofoid, C. A., et al. "Termites and Termite Control," Univ. Cal. Press, 1934.

THE TERMITE PROBLEM IN UTAH



Wood destroyed by termites taken from a building in Salt Lake City.



Letters damaged by termites taken from a store room in Salt Lake City.



Reticulitermes tibialis Banks, common termite in Utah. Upper left, a worker; lower left, a soldier; right, a winged queen.