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## **The Argentine Ant and How To Control It**

(Work Done Under Provisions of Local Experiment Law)

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By

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# THE ARGENTINE ANT AND HOW TO CONTROL IT

By

F. L. THOMAS, Asst. Entomologist

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One of the most troublesome pests in the southern part of the United States is the Argentine Ant. Ten years ago it was taken at Mobile by Mr. H. P. Loding. Since that time it is known to have spread to several other points in Alabama, principally along the railroad lines\*. It has been not only a cause of great annoyance and loss to householders, but also of material loss to property owners. In infested city sections it is not uncommon to find several houses in a block which are vacated and cannot be rented because they are so overrun with ants. The effect of ants upon real estate values is a serious matter. Much investigation concerning the habits of this pest has been made by the station, the work being done under the provision of the Local Experiment Law.

Although this species is better known as a city pest the country districts have not escaped its ravages. Nurserymen, truck growers and orchardists, especially citrus growers, are among those who suffer most, outside of the householders.

## WHERE THE NESTS CAN BE FOUND

The nests of the Argentine Ants may be found in almost any sort of location that offers protection from the elements—even under a newspaper on the ground and under shingles on the roof of a house, or inside of a manure pile and within wooden porch pillars. The species has a marked tendency to construct nests in close proximity to any abundant food supply.

In the fall of the year the colonies unite by common instinct and seek especially dry, sheltered situations such as decaying logs, masses of leaves, manure heaps, straw, etc., where heat is generated. Warm places are particularly attractive. As early as March the spring migration takes place and the winter colony divides into small colonies which spread in search of food and to build new nests.

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\*Heavy infestations occur at Mobile, Montgomery and Birmingham and at several points along the L. & N. Ry. between these cities, also at Andalusia, Selma, Demopolis, Marion, Talladega, Sylacauga and many other smaller places in Alabama.

## INJURES FRUIT AND FRUIT TREES

This ant is injurious to the buds, blooms, and fruit of orange trees, destroys the ripening fruit of fig trees and is indirectly injurious by its care of various scale insects and plant lice. It is also antagonistic to certain beneficial insects, attacking the fire-ant, which is an enemy of the boll weevil. The mealy bug, an important enemy of the sugar cane growing industry, increases with great rapidity wherever the Argentine Ant is found. As a pest to truck growers it will dig up and feed upon fresh planted lettuce seed, but its fondness for corn meal scattered on the bed may prevent this destruction. While the ants are busy with the corn meal the seed germinates, after which it is not disturbed.

The spread of this pest has occurred mostly by shipment of infested materials along road lines. Individuals by the thousands and even complete colonies travel from infested points in shipments of groceries, feed stuffs, manufactured articles, timber, etc. Infestations are usually found around the establishments of grocers and commission merchants. Heavy, flooding rains are undoubtedly a factor in the natural distribution of this ant. Rising water which floods their nests causes them to cluster together and form a compact ball which floats and may be carried long distances by the water. The ants may live in this way for a long time and if a queen happens to be included new colonies may be established.

### WINTER BEST TIME TO TRAP THEM

One easy method of destruction takes advantage of their habit of uniting many small summer colonies in the fall to make a single, large, winter colony. Winter trapping has proven so effective that if carried out uniformly by a community where the infestation occurs few, if any other measures, would be necessary to hold the pest in check. An ordinary dry goods box placed on a well drained spot is filled with straw and horse manure or cotton seed and exposed to the weather so that the contents become moist and commence to decay. The top may then be covered so as to exclude winter storms and a few meat bones may well be included as bait. This makes an excellent winter nest which will attract practically all colonies

within a radius of 30 or 40 yards. Sometime in January or during cold weather, the box is made tight and fumigated with about a cup of carbon disulphide. An abundance of boiling water poured into the box will kill the ants where this can be done conveniently.

In heavily infested houses much relief may be secured by using bichlorid-of-mercury tape around the legs of tables, shelves, beds, refrigerators, safes, etc. This tape should be prepared by a druggist. While this tape does not repel all ant species it is quite effective against the Argentine Ant.

### DESTROY WITH SLOW ACTING POISONS

In attempting to control this pest it is useless to feed a strong poison which will kill only the workers that get it. All eggs are laid by the queens which rarely leave their nests. The colony will therefore be a source of constant infestation until the queens are all killed or the ants move them away. It is therefore necessary to adopt measures which will destroy the queens. The queens are fed in the nests by the workers which have the power of regurgitating food which they have gathered upon their foraging expeditions. The workers are able to carry considerable liquid food in their abdomens which become distended and transparent. If therefore a *slow-acting poison* is used it will be taken to the nests by foragers and workers and the queens may thus be poisoned, and with their death the colony will be exterminated.

### IMPROVED FORMULA FOR ARGENTINE ANT POISON\*

Granulated Sugar (best white) .....	3 lbs.
Water .....	3 lbs. (or pints)
Tartaric Acid .....	2 grams
Benzoate Soda .....	2.8 grams
Sodium Arsenite (chemically pure) .....	5 grams
Honey (strained, best grade) .....	.8% by weight or 1½ lbs
(Use only the best grade of materials.)	

### PROCEDURE

Dissolve the sugar in the water in a clean granite ware kettle. (Do not use iron kettle). Add the Tartaric Acid and Benzoate of Soda and boil for thirty minutes; then cool. Dissolve the Sodium Arsenite in one-half pint of hot water, cool this solution; then add to the

sugar solution. When cold add the honey to the entire solution.

This formula should stand a year or more without fermentation or becoming unattractive to the ants.

#### EXPOSURE \*OF THE SYRUP.

Use preferably about 4-oz. size clean tin cans with covers. Bend the edges of the top in sharply at opposite points to allow a space through which the ants may find access to the poison after the cover has been put in place. Prepare a cheap grade of sponge, ("Grass Well Sponge") by washing and boiling them, then tearing into pieces that will fit into the bottom of the can. Add about one gill of the poison syrup or fill the can one-half full.

In placing the cans they may be hung in the crotches of trees, out of the reach of children and animals, by bending a wire so that the ends will hook under the cover where the top of the can is bent in. The wire may then hang on a nail at any convenient point as in a crotch of a tree. Cans may well be placed upon, or hung against the foundation piers of houses at such points as the ants seem to favor for entrance to the building. Six or eight cans scattered around an ordinary sized lot will usually control the ants so that they will not be a pest in the house. One premise may be protected in this way in a large degree in spite of the fact that adjacent premises are not kept free, but it is far better of course to have all lots in a neighborhood protected in a similar manner. Where prepared in quantity the cost should not exceed ten cents per can.

#### CLEAN UP CAMPAIGNS

It has been found in practical experience that large, infested areas in cities and towns may be practically cleaned up by a cooperative campaign through which the entire area is properly protected by distribution of these cans of poisoned bait. The best time of year to begin this campaign is August and September. As a general thing the expense for the cans and poison is paid by the property owner or occupant, while the supervision of the work is carried on by an expert entomologist. Arrangement can possibly be made with the Experiment Station, Dept. of Entomology, Auburn, Ala., to supervise this work for any community that is interested to conduct a clean-up campaign against the Argentine Ant.

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\*After E. R. Barber, U. S. Bureau of Entomology.