APPENDIX 10: ANTS

MANAGEMENT AND CONTROL OF ANTS

1. GENERAL INFORMATION

Ants are among the most prevalent pests in the household. They are found in any environment where they have food and water. Once ants have established a colony inside or near a building, they may be difficult to control. On outdoor (and sometimes indoor) plants, ants protect and care for honeydew-producing insects such as aphids, increasing damage from these pests. Ants also perform many useful functions in the environment, such as feeding on other pests (e.g. fleas, caterpillars and termites), dead insects, and decomposing tissue from dead animals.

Ants are close relatives of bees and wasps, and are often confused with termites.

Three main characteristics distinguish ants from termites:

- The ant's abdomen is constricted where it joins the thorax, giving it the appearance of having a thin waist; the termites abdomen is broad where it joins the thorax;
- The ant's hind wings are smaller than its front wings; the termites front and hind wings are about the same size (shortly after their flights to find new colonies, both ants and termites remove their wings so wings may not always be present);
- Winged female ants and worker ants have elbowed antennae; the termite's antennae are never elbowed.

Ants undergo complete metamorphosis, passing through egg, larval, pupae and adult stages. Larvae are immobile and wormlike and do not resemble adults. Ants are social insects with duties divided among different types or castes of adult individuals. Queens conduct the reproductive functions of a colony and are larger

than any other ants: they lay eggs and sometimes participate in the feeding and grooming of larvae. Female workers, who are sterile, gather food, feed and care for the larvae, build tunnels and defend the colony; these workers make up the bulk of the colony. Males do not participate in colony activities; their only apparent purpose is to mate with the queens. Few in number, the males are fed and cared for by the workers.

Inside a building, household ants feed on sugars, syrups, honey, fruit juice, fats and meats. Long trails of thousands of ants may lead from nests to food sources, causing considerable concern among building occupants. Outdoors they are attracted to sweet, sticky secretions, or honeydew, produced by aphids.

Ant usually nest in soil; nests are often found next to buildings, along sidewalks, or in close proximity to food sources such as trees and plants that harbor honeydew producing insects. They also construct nests under boards, stones, tree stumps or plants, and sometimes under buildings or other protected places. They enter buildings seeking food and water, warmth and shelter, or a refuge from dry, hot weather or flooded conditions. They may appear suddenly in buildings of other food sources become unavailable or weather conditions change.

A new colony is typically established by a single newly mated queen. After weeks or months of confinement underground, she lays her first eggs. After the eggs hatch, she feeds the white, legless larvae with her own metabolized wing muscles and fat bodies until they pupate. Several weeks later the pupae transform into sterile female adult workers, and the first workers dig their way out of the nest to collect food for themselves, for the queen (who continues to lay eggs) and for subsequent broods of larvae. As numbers increase, new chambers and galleries are added to the nest. After a few years, the colony begins to produce winged male and female ants, which leave the nest to mate and form new colonies.

2. MANAGEMENT AND CONTROL OF ANTS

Ant management requires diligent efforts and the combined use of mechanical, cultural, sanitation and sometimes chemical methods of control. It is unrealistic and

impractical to attempt to totally eliminate ants from an outdoor area. Focus your management efforts on excluding ants from buildings and eliminating their food and water sources. Become aware of the seasonal cycle of ants in your area and be prepared for annual invasions by sealing the building in time.

2.1. MECHANICAL CONTROL

Exclusion and sanitation: To keep ants out of buildings, seal cracks and crevices around foundations that provide entry from the outside, using silicon. Ants prefer to make trails along structural elements, such as wires or pipes, and frequently use them to enter and travel within a structure to their destination. Indoors, eliminate cracks and crevices wherever possible especially in kitchens and other food preparation and storage areas. Store attractive food items such as sugar, syrup, honey and other sweets in closed containers that have been washed to remove residues from outer surfaces. Rinse out empty soft drink containers and remove them from the building. Thoroughly clean up grease and spills. Do not store rubbish indoors. Look for indoor nesting sites such as potted plants. If ants are found, remove containers from the building and submerge the pot for 20 minutes in standing water that contains a few droplets of liquid soap. Ant nests may be associated with plants that support large populations of honeydew-producing insects. Avoid planting such trees and shrubs near to buildings.

2.2. CHEMICAL CONTROL

Coopex ant dust (made by AgrEvo) is the only chemical that is legal to use against ants in the Kruger National Park. Dust freely along runs and around nests, repeating where necessary. ***Fendona*** (see cockroach control) is also an effective and approved chemical used in ant control. **This however, is for use on man-made structures only, not for application to vegetation/in gardens etc**.