



# INTEGRATED PEST MANAGEMENT: ANTS

Columns of ants marching through our homes are a common problem in California. Many parents react by pulling out a can of ant spray to get rid of them, but there are risks to using these products—and, fortunately, there are safer and more effective ways of reducing the number of ants in our homes. Integrated pest management (IPM) is an approach to preventing ant invasions and reducing pesticide use through prevention, inspection, identification, monitoring and management of ants in your home.

## Characteristics and habits

Ants are found where they can find food and water to take back to their nests. Most ants commonly found in California are not a serious threat to human health or property, and they may help control other pests like fleas, caterpillars and termites.

## Managing ants in the home

Spraying pesticides may kill the ants you can see, but spraying is not an effective way to keep ants out of your home. More importantly, pesticide residues can build up in the dust on floors where people may be exposed. Young children are especially vulnerable because they spend a lot of time on the floor, where they may breathe or swallow these residues; pesticides can also be absorbed through the skin. There is increasing concern about the effects of these pesticides on the health and development of young children. Ant control should focus on good sanitation and home maintenance in order to prevent infestations and avoid routine spraying of pesticides.

Ant management requires continuous effort. The goal is to reduce the number of ants in your home. Do not try to completely eliminate ants from your yard – it is not necessary and may harm the environment.

## IPM Strategies

### 1 KEEP ANTS OUT

- ▶ When you see ant trails in your home, follow ants to where they are entering your house. Caulk cracks around foundations or openings especially where wires and pipes enter the building.
- ▶ Keep plants and mulch away from the foundation of buildings; they provide nesting sites for ants.

### 2 REMOVE ANTS' FOOD

- ▶ Store food items such as sugar, syrup, honey and pet food in closed containers. Wash the outside of the container to remove sticky spills.
- ▶ Remove garbage from the kitchen at the end of each day.
- ▶ Repair leaky sinks and hoses.

### 3 GET RID OF ANTS INDOORS

- ▶ One or two wandering ants are scouts searching for new food or nesting sites and should be killed to prevent them from establishing a trail into the house.
- ▶ Sponging ants with soapy water removes the ants' scent trail and is effective in temporarily removing foraging ants in a building, especially if the area is thoroughly cleaned and any gaps or holes in the building are sealed.
- ▶ Ant baits are a key tool for managing ants and are the only type of pesticide recommended in most situations.
- ▶ Baits contain a slow acting poison mixed with a substance that attracts worker ants looking for food. Workers carry the bait back to the nest and transfer it mouth-to-mouth to other ants in order to kill the entire colony. This takes time, so be patient! Continue to clean up trails while waiting for baits to work.
- ▶ Use baits outdoors or in self-contained bait stations. Place where children do not have access to them, such as under a cabinet.

If you are unsuccessful in getting rid of indoor ants, work with a pest management professional who practices IPM to identify the ant species and create a management plan.



#### RESOURCES

University of California Statewide IPM—*Ants*  
[www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7411.html](http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7411.html)

Department of Pesticide Regulation  
“*Ant Bait and Wait*” poster  
[www.cdpr.ca.gov/docs/pestmgt/pubs/ant\\_color\\_eng.pdf](http://www.cdpr.ca.gov/docs/pestmgt/pubs/ant_color_eng.pdf)

Department of Pesticide Regulation *Ant Fact Sheet*:  
[www.cdpr.ca.gov/docs/pestmgt/pubs/ants\\_color.pdf](http://www.cdpr.ca.gov/docs/pestmgt/pubs/ants_color.pdf)



# INTEGRATED PEST MANAGEMENT: HEAD LICE

Head lice are blood-sucking insects that are common among children. Young children are especially prone to getting head lice, because they play in close physical contact and share things like hats, combs and brushes. Anyone can get head lice regardless of hygiene, socioeconomic status or ethnic background.

## When are head lice a problem?

Head lice do not transmit any diseases, but they are bothersome because children with head lice scratch their scalps. Head lice are a problem because it takes time for parents to treat and remove head lice from their child's hair, clean clothing and bedding.

## Characteristics

- ▶ Head lice spend their whole lives on the hairy part of the head and can only survive for 1-2 days without a blood meal. They can live up to a month, and are about the size of a sesame seed.
- ▶ Head lice crawl quickly, but do not hop, fly or jump.
- ▶ Head lice are most often spread by direct contact between children, or sometimes spread by sharing combs, brushes, scarves, hats or bed linens.
- ▶ Head lice cannot live on family pets.

## IPM Strategies

### ① PREVENT HEAD LICE INFESTATIONS

- ▶ Avoid head-to-head contact during an infestation.
- ▶ Avoid sharing combs, brushes, hats and helmets with others.
- ▶ All close contacts of a child with head lice should be checked. Those with evidence of an active infestation should be treated.

### ② MANAGEMENT

Remove lice and nits from hair.

#### NON-PESTICIDE METHODS

- ▶ Mechanical removal of lice and nits can be an effective method. This is time-consuming, but safest for young children. Use a nit comb, a

good light and magnification, since lice and nits are small and hard to see.

- ▶ Divide the hair into sections. To remove a nit, pull it along to the end of the hair or use a special fine-toothed lice comb. You can't just "pick off" a nit.
- ▶ Once you're done combing through all of the hair, discard plastic combs in a plastic bag.
- ▶ Haircuts are an old-fashioned approach to preventing infestations. Short hair is more readily searched for lice and eggs, but does not prevent infestation.
- ▶ Heat from a hand-held hair dryer may be sufficient to kill lice and their eggs.
- ▶ Alternative treatments involving the use of herbal shampoos, mayonnaise, food grade oils, kerosene and hair gels are not proven to be effective.

#### LEAST TOXIC PRODUCTS

- ▶ Use less toxic shampoos, such as: Dimethicone, an odorless, non-irritating and hypoallergenic moisturizer that suffocates lice, followed by blow drying.
- ▶ Benzyl alcohol lotion, which kills lice but not nits, so two treatments are required. Can be used on children as young as 6 months of age.
- ▶ As a last resort, use pesticide liquids or lotions that use chemicals such as permethrin or pyrethrins.
  - ▶ Follow product instructions very carefully. Repeat as directed.
  - ▶ Sometimes pesticides don't work because the head lice have developed a resistance to the chemicals (this means that the chemicals no longer kill all the head lice and nits).



[IPM strategies continued]

### 3 REMOVE LICE AND NITS FROM THE ENVIRONMENT

- ▶ Vacuum areas around nit combing area and discard vacuum bag.
- ▶ Clean lice combs and other nit-removing tools using hot soapy water (or rubbing alcohol, if a metal comb) between each stroke. Use an old toothbrush to scrub the lice comb and remove nits or lice that may be caught in the teeth of the comb.
- ▶ Wash clothing and bedding in hot water (at least 149°F) and dry in hot dryer.
- ▶ Place earphones and helmets in plastic and put in a freezer that's 5°F or lower for at least 10 hours.
- ▶ Clean stuffed animals or put them in plastic bags, out of the reach of children, for 2 weeks.
- ▶ Treatments may not always kill head lice eggs. Inspections and nit removal should be done daily for at least two weeks. Remember if lice or nits are found, all family members and close contacts should be inspected.

#### RESOURCES

University of California Statewide IPM Program: *Head Lice*  
[www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7446.html](http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7446.html)

American Academy of Pediatrics: *Head Lice*  
[pediatrics.aappublications.org/cgi/content/full/126/2/392](http://pediatrics.aappublications.org/cgi/content/full/126/2/392)

California Childcare Health Program: *Head Lice*  
[www.ucsfchildcarehealth.org/pdfs/factsheets/HeadLice\\_EN\\_o83007.pdf](http://www.ucsfchildcarehealth.org/pdfs/factsheets/HeadLice_EN_o83007.pdf)

Center for Disease Control Head Lice  
[www.cdc.gov/lice/head](http://www.cdc.gov/lice/head)

Head Lice  
[www.headlice.org](http://www.headlice.org)

Kids Health  
[kidshealth.org/parent/infections/common/lice.html](http://kidshealth.org/parent/infections/common/lice.html)

eXtension School Integrated Pest Management Action Plans  
[www.extension.org/pages/School\\_Integrated\\_Pest\\_Management:\\_Action\\_Plans](http://www.extension.org/pages/School_Integrated_Pest_Management:_Action_Plans)

California Childcare Health Program, University of California, San Francisco School of Nursing • [www.ucsfchildcarehealth.org](http://www.ucsfchildcarehealth.org)



Funding for this project has been provided in full or in part through a grant awarded by the California Department of Pesticide Regulation (DPR). The contents of this document do not necessarily reflect the views and policies of DPR nor does mention of trade names or commercial products constitute endorsement or recommendation for use.