

## **FREQUENTLY ASKED QUESTIONS ABOUT GYPSY MOTH CONTROL ACTIONS AND PUBLIC HEALTH IN EUGENE, OREGON, 2009**

**General Information:** The Oregon Department of Agriculture and the U.S. Department of Agriculture (APHIS) plan to carry out an eradication program to eliminate an infestation of gypsy moths in Southeast Eugene neighborhoods in the vicinity of Old Dillard Road. The plan is to use an organic biological insecticide, Foray 48B, containing *Bacillus thuringiensis kurstaki* (Btk), in three separate helicopter applications during late April and May, 2009.

### **Q: Is my house in the treatment area?**

A: A map of the treatment area is available at: [http://www.oregon.gov/ODA/PLANT/IPPM/images/gm\\_eugene\\_erad\\_map09.html](http://www.oregon.gov/ODA/PLANT/IPPM/images/gm_eugene_erad_map09.html)

### **Q What is *Bacillus thuringiensis kurstaki* (Btk)?**

A: Btk is a naturally-occurring bacterium found in soil. It has been used as a biological insecticide to control caterpillar pests for over fifty years. Farmers around the world, including producers of organic produce, use Btk. In Oregon, it has been used successfully for area-wide eradication of gypsy moth infestations since 1984. In fact, Oregon pioneered the use of this biological insecticide for eradicating gypsy moth infestations in order to get away from using more toxic chemical pesticides. Historical information on Btk use in Oregon is summarized in the EA referenced above.

### **Q: How does Btk work?**

A: Btk affects only leaf-eating caterpillars. It has no effect on adult butterflies, moths, bees, or other beneficial insects. Btk does not kill the caterpillar on contact, but instead must be ingested to be effective. When ingested, proteins produced by Btk damage the caterpillars' digestive systems, causing them to stop feeding and die.

### **Q: What other ingredients are present in Btk products?**

A: Btk is sold in several formulations. Foray 48B is labeled for wide-area public pest control programs. The product contains 12.65% Btk bacterium and 87.35% water and other ingredients that improve the product's storage, spraying, and adhesive properties. All the ingredients are approved by the U.S. Environmental Protection Agency (U.S. EPA) for use on both food and non-food crops. Some of the other ingredients may also be approved for use as additives in food by the U.S. Food and Drug Administration. Foray 48B is approved by the Organic Materials Review Institute for use in certified organic crop production.

### **Q: Can I continue to eat the food from my garden or fruits collected from my orchard after a Btk application?**

A: U.S. EPA has done an evaluation of Btk and determined that it is safe to use on all types of food crops. Btk products that are certified by the Organic Material Review Institute can be used on food crops without restriction. Washing fresh fruits and vegetables before consuming is recommended and always a good idea.

### **Q: How long will Btk stay on my trees and lawn?**

Btk is degraded by sunlight and exposure. Breakdown occurs within a few days; Btk does not persist in the environment except in soil, where it occurs naturally. This short period of effectiveness is why three applications are necessary.

**Q: What are the potential human health effects associated with aerial application of Foray 48B?**

A: Tens of thousands of people in neighborhoods similar to Eugene have experienced Btk treatments. People have self-reported a variety of health problems, but doctors and scientists have not confirmed any health problems actually caused to residents by the applications. Foray 48B has been shown through scientific studies to have very, very low acute toxicity (less than table salt). It is possible that some people may be more sensitive to either Btk or the other ingredients in Foray 48B. People who have impaired immune systems, chronic respiratory illness or who are allergic to food additives may want to consult their doctor and/or take precautionary measures to avoid exposure.

**Q: If I am concerned about the aerial application of Btk, and want to take extra precautions, what can I do?**

A: Btk works specifically on caterpillars. No health impacts are expected to people, pets, or wildlife. However, if individuals wish to minimize their exposure, here are some easy ways to do so:

- Stay indoors and keep doors and windows closed during the aerial application; People who have impaired immune systems, chronic respiratory illness or who are allergic to food additives may wish to observe the precautionary 4-hour re-entry period specified for agricultural workers before going outside, or consult with their physician for recommendations.
- Turn off ventilation systems that bring outdoor air inside during and immediately after the aerial application;
- Avoid direct skin contact with exposed material until after the spray has dried. The Btk settles to the ground in a few minutes, it then takes a little while for it to dry. By about 30 minutes after application it will be dry and stuck fast, depending on weather conditions.
- You may want to cover outdoor furniture or toys/playground equipment that you may use soon after the spray or hose them off before use.

**Q: I know the experts say it won't affect me, but I'm really concerned. Is there anything else I can do?**

A: Yes, there is. If it's important for your peace of mind, you may want to consider leaving the area during the application. This additional step isn't a recommendation from ODA, The City of Eugene, health care professionals, the Oregon Toxics Alliance, or the SE Neighborhood Association, but it is an option. Spraying is scheduled to start before sunrise and finish within 2 hours.

You can sign up for robo-calls giving notice of when the treatment is about to start and when it has finished <[http://oda.state.or.us/dbs/ippm\\_registry/add.lasso](http://oda.state.or.us/dbs/ippm_registry/add.lasso)>, or you can call the ODA information hotline 1-800-525-0137 for status updates. Note that the early morning robo-calls

could come as early 5:30 AM. All treatments depend on favorable weather and schedule changes and delays are possible.

**Q: What about kids walking or riding bikes to school, or waiting outside for the school bus? Will they be sprayed?**

A: ODA will have observers in the area and will work with the school system and the applicator to make sure the school bus routes are not treated when children are waiting for their school buses. Schools and school bus operators will be notified about scheduled sprays. Parents may choose to take precautions getting their children to school on days when aerial spray occurs.

**Q: I live just outside the treatment boundary. Will my property be affected?**

A: Small amounts of Btk may settle outside the treatment boundary. If weather conditions are such that drift would be a problem (> 10 mph wind), the treatment will be postponed. Rain and fog could also lead to postponements. Local radio stations will be notified if this happens. You can also call the ODA information hotline for status updates: 1-800-525-0137 or sign up for robo-calls at: <[http://oda.state.or.us/dbs/ippm\\_registry/add.lasso](http://oda.state.or.us/dbs/ippm_registry/add.lasso)>.

**Q: What should I do if I feel sick after the aerial application of Foray 48B?**

A: It is extremely unlikely that the spray will cause any health affects. In controlled studies, the type and frequency of reported health issues have been the same in treated and untreated areas. Note that community health studies have blamed Foray 48B for a variety of symptoms in residents, but doctors and scientists have not been able to confirm a link. It is not unusual for health-related complaints to come in to hotlines on days when spraying has been postponed due to weather and no Btk has been applied.

Workers that work directly with the Btk formulations sometimes report chapped lips and irritated skin and mucus membranes. The Btk products they work with are likely the cause of these symptoms. Btk products are slightly acidic (Foray 48B's PH is 4.1-4.8, about the same as tomato soup) and prolonged exposure to any acidic solution will irritate skin and sensitive membranes. These symptoms clear up soon after direct contact with the material stops. There is one documented case of a worker getting a Btk infection in his eye after accidentally splashing the material directly on his face. Antibiotics were required to cure the infection. For these reasons, regulations and recommendations for workers are different than for residents. For instance, there is a 4-hour reentry period for workers when Foray 48B is used in agricultural fields. This is the minimum EPA requirement for any pesticide used in agriculture. Additional information on health studies, label requirements, etc., can be found in the Environmental Assessment: ([http://egov.oregon.gov/ODA/PLANT/docs/pdf/ippm\\_gm\\_ea09.pdf](http://egov.oregon.gov/ODA/PLANT/docs/pdf/ippm_gm_ea09.pdf)).

If you get sick before or after the treatment, you should do what you would normally do for whatever the problem is.

Health related questions should be directed to:

- 24-hour medical information about Foray 48B: 1-877-315-9819,
- Oregon Poison Control System hotline: 1-800-222-1222,
- 911 emergency services,

- Your physician,
- You should also let the SE Neighborhood Community Health Team know by calling 465-8860 and leaving a message – your call will be returned,
- Questions about timing and details of the Eugene treatment should go to ODA at 1-800-525-0137.

*This fact sheet was prepared by the Oregon Department of Agriculture, USDA APHIS, Oregon Toxics Alliance, City of Eugene and the SE Neighborhood Organization. For more information about the ODA Gypsy Moth Eradication Program, contact Dr. Helmuth Rogg Supervisor, Insect Pest Prevention & Management Program 503-986-4662. For SE Neighborhood Information contact Lisa Warnes at [lisawarnes@efn.org](mailto:lisawarnes@efn.org).*