

CHEMICAL CONTROL STRATEGIES

Chemical control strategies focus on using pesticides with the goal of killing or repelling insect pests or regulating or interrupting their growth. Pesticides include insecticides, miticides, fungicides, bactericides, herbicides, repellants and other chemical agents. Chemical controls may be needed if cultural, mechanical or biological control methods are not able to meet pest control goals. It is important to correctly identify the pest in order to select the most appropriate chemical control. When using chemical controls, use of narrow spectrum pesticides will help in avoiding damage to natural enemies.

NOTE: Follow all cautions and instructions carefully when using pesticides. Get necessary training to apply pesticides and use certified professionals when required.

Examples of chemical controls include:

- Applying pesticides to protect non-infested trees as a preventative strategy before damaging insects emerge and spread from adjacent trees
- Injecting pesticides directly into a tree trunk in order to concentrate systemic pesticides in a tree's vascular system so it can move more quickly through tree tissues
- Drenching a pesticide mixture onto the soil that surrounds the tree base so roots can take it up systemically into the tree
- Spraying horticultural oil at the right time of year and at the right time of day to suffocate insect pests



Cutting infested wood and hand spraying to kill Southern pine beetles

Photo credit: Robert L. Anderson, USDA Forest Service, Bugwood.org



Basal drench insecticide application in hemlock

Photo credit: Elizabeth McCarty, University of Georgia, Bugwood.org