

Spruce Bark Beetle Management Options

Large outbreaks of the spruce bark beetle are difficult to control. One of the best ways to mitigate the effects of spruce beetle outbreaks is to manage for overall forest health and resiliency. Thinning overly dense stands of trees to reduce competition and promote tree age and species diversity is the most successful forest management strategy to promote tree vigor. Removing downed spruce also may prevent the build-up of large local spruce beetle populations.

Options for management include:

- **Remove infested trees** and slash from thinning or pruning. Continual removal of wind-thrown Engelmann spruce, trees already infested by other insects and diseases, and excess numbers of older trees (as beetles most frequently attack the largest trees first) can be effective.
- **Solar treatments** can be used to reduce spruce beetle populations in small infested stands. These treatments involve felling infested trees and stacking cut logs in an area with full sun before covering them with clear plastic. The solar treatment of infested trees creates conditions unsuitable for survival of spruce beetles.
- **Trap trees** serve as traps for recently emerged, adult beetles. After the trap trees become infested with beetles, trees are removed and destroyed, usually during the fall or winter while all of the spruce beetles are still inside.
- **Preventive insecticide sprays** may prove effective in preventing spruce beetle infestation. Certain formulations of pyrethroids that are registered and tested for effectiveness are the primary preventive insecticidal sprays used to help reduce the likelihood of attacks on individual trees. The Colorado State Forest Service (CSFS) recommends spraying only high-value trees, such as those near homes, businesses or recreation sites. Follow the label of any chosen product.
- **Hanging pheromone packets** containing Methylcyclohexanone (MCH) may disrupt the attraction of incoming beetles and can be used to reduce attacks on spruce trees where no other management options are effective (e.g., in close proximity to water, near structures where the overspray of preventive insecticides may be undesirable.) These pheromone packets are proven to be helpful with Douglas-fir bark beetles but not necessarily for spruce beetles.
- **Beetle traps** baited with bait from Synergy company. This requires putting them out in Spring when activity peaks and checking and emptying every 2 weeks during May, June, and July.