

Neighbors,

As communicated in earlier messages this year, the Mountain Pine Beetle (MPB) is here in our Paradise Hills HOA on Lookout Mountain as it is attacking pine trees all along the Colorado Front Range foothills. Several PH HOA Community members recently reported trees on their property attacked by the MPB by seeing pitch tubes and boring dust (see below). And local news articles are reporting large patches of trees killed by MPB nearby - only a few miles from Lookout Mountain in the Bergen Park area along I70.

See [Pine beetle infestation in Colorado's Front Range forests](#).



Pine beetles have killed approximately 20 acres of ponderosa pine on the above mountainside next to Interstate 70 and Soda Creek Road in Jefferson County, just east of Floyd Hill, as seen Monday, Dec. 22, 2025. (Jonathan Ingraham/Denver Gazette).

Although the recent attacks in our community have been sporadic, widespread beetle attacks are expected beginning this summer (late June to mid-September) due to the larger and successful MPB attacks nearby in Bergen Park.

The PH HOA is asking community members to become familiar with the signs and symptoms of MPB attack and infestation, and to prepare a plan to deal with trees that could be attacked on their property.

### **Jefferson County Regulation**

(Source: [Jefferson County Mountain Pine Beetle Resource Page](#))

MPB is a regulated pest within Jefferson County and landowners need to inspect their trees and control MPB whenever it is found. In addition, logs containing live MPB must not be moved until they are debarked, solar treated, or chipped.

**Colorado State Forest Service (CSFS) April 2026 Update**

(Source: [April 2026 MPB Activity Update](#))





"Given concerns about early emergence of adult mountain pine beetles, the CSFS Forest Health staff has set up several pheromone traps for mountain pine beetles on the Front Range and is monitoring larval development. They have not yet seen any pupae under the bark and have not caught any adults in their traps as of early April. The CSFS is not expecting mountain pine beetle adult emergence to occur earlier than normal or differ significantly from last year."

**MPB Tree Hosts, Visible Signs/Symptoms, Attacks, Lifecycle**

(Source: [Jefferson County Mountain Pine Beetle Fact Sheet](#), [US Forest Service \(USFS\) MPB Leaflet](#), and [Colorado State Forest Service \(CSFS\) MPB](#))

MPB Tree Hosts. Lodgepole, ponderosa, western white, sugar, limber and whitebark pines. All pine species within in their range, including Coulter, foxtail, pinyon, and bristlecone pines, can also be infested and killed. Scotch and Austrian pines, introduced into North America as ornamentals, Christmas trees and/or forest plantations are also susceptible. Douglas-fir, true firs, western larch, incense-cedar and western hemlock are occasionally attacked, but because they are not true hosts, broods rarely develop. Recently, mountain pine beetle has been found producing viable brood in spruce. Attacks on trees other than pines usually only occur when nearby pines are heavily infested and beetle population levels are high.

MPB Symptoms

SYMPTOMS			
<p><b>Fading</b></p> <p>Late Spring to early Summer</p> <p>Foliage starts to fade to yellowish green/reddish throughout the entire tree crown about 8-10 months after the trees are attacked. The trees eventually turn reddish.</p>		<p><b>Pitch Tubes</b></p> <p>Late Summer through Spring</p> <p>Trees increase sap flow as a defense to try to fight off infestation. Pitch tubes develop and can be seen on the trunks of trees.</p> <p>Sometimes the tree can expel the adult beetle early in an attack.</p>	
<p><b>Blue-stain Fungus</b></p> <p>Beginning in Fall</p> <p>The fungus forms spores in the pupal chambers. The new adults feed on the spores and carry the fungus with them as they move into new host trees. The fungus moves into the inner bark and sapwood. The vessels that move food and water within the tree become clogged and the tree dies.</p>		<p><b>Galleries</b></p> <p>Late Summer to Spring</p> <p>The female creates a vertical gallery as she feeds and moves upwards. She lays eggs in galleries and as eggs hatch the larvae begin to feed and form new galleries at right angles to the main gallery.</p>	

Other MPB Attack Signs. Attacks can also display beetle boring dust in bark crevices and at the base of the tree, and woodpecker holes where woodpeckers attack the tree feeding on beetles, larvae, and pupae inside the bark of the tree.



*Figure 3: Pitch tubes and boring dust—indicative of a successful mountain pine beetle attack in lodgepole pine.*



*Figure 11. Woodpecker feeding on overwintering larvae typically has little effect on outbreak populations.*

#### Successful and Unsuccessful MPB Attacks.

MPB attacks are not 100% successful. A successful attack is where the beetle enters tree bark, creates galleries and reproduces (i.e., egg-larvae-pupae-adult), deposits blue stain fungus, and kills tree by girdling from the larval galleries and blue stain. New adults emerge in the Summer (mid-June to September) to attack new live trees. An unsuccessful attack is where some very healthy trees can repel beetle attacks by “pitching out” the beetle with tree sap, so the beetle is not able to enter the tree to create galleries and reproduce a new generation of beetles. The image here shows the beetle being pitched out with tree sap.



*Figure 2: Unsuccessful mountain pine beetle attack—commonly called a “pitchout.”*




In addition to the signs already listed, the CSFS notes the color and location of pitch tubes can also help identify if a tree was successfully attacked by the beetles.

- Unsuccessful: a few clear/whiteish pitch tubes occurring mostly on the same side of tree trunk. Referred to as “strip attack”.
- Successful: 10 or more darker, yellow/pink/red pitch tubes around the entire tree trunk. This indicates the beetles were able to bore into the tree, with boring dust surrounding the base of the tree. Referred to as “mass attacked”.

MPB Annual Lifecycle Stages. Beetles develop through four stages: egg, larva, pupa, and adult. Except for a few days during the summer, when adults emerge from brood trees and fly to attack new host trees, all life stages are spent beneath the bark.

LIFECYCLE												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
<b>Egg</b>								X	X			
<b>Larvae</b>	X	X	X	X	X	X	X		X	X	X	X
<b>Pupae</b>						X	X					
<b>Adult</b>						X	X	X	X			

<b>Egg</b>		Late July to early Fall	Females lay eggs in galleries perpendicular to her vertical gallery. Eggs hatch about 10-14 days later.
<b>Larvae</b>		Fall to early Summer	Larva hatch from the eggs in early fall. They feed under the bark throughout the winter and spring, in galleries at right angles moving away from the vertical gallery.
<b>Pupae</b>		June to July	Larvae transform into pupae in June-July. Adults emerge from the pupae and exit the tree.
<b>Adult</b>		Late June to mid-Sept	New adults fly and infest new trees. Females excrete an aggregating pheromone that attracts males and other females. Females and males pair up and mate in nuptial chambers under the bark.

### Prevention and Treatment Options

There are several options available in preventing MPB from attacking your trees (chemicals, pheromones, etc.), and in treating successfully attacked trees that have died (cutting and treating on site or removing to authorized location, etc.).

#### Prevention Options – Generally done in the Spring on Green Living Trees

- Insecticide (Carbaryl, Permethrin, Bifenthrin): Preventive spray applied in early Spring (May to mid-June) to living green trees to kill or deter attacking beetles, generally effective through one MPB life cycle (1 year).
- Pheromone: Anti-aggregate pheromone deployed in packets attached to green living trees in late Spring (late May to mid-June) to repel adult beetles before they burrow into trees.
- Forest Management: Create/maintain healthy forest by thinning dense stands to reduce tree competition, establish multi-aged stand, or a mixed-species stand.

Treatment Options – Generally Done in the Fall/Winter on Newly Attacked Trees.

Treatment focuses on trees newly infested with MPB where needles are green, but tree also have signs of infestation – frass, pitch tubes, blue-stain, etc. **Trees with needles that turned red/orange/brown last season are dead, and no longer are a threat of spreading the beetle, as the beetle has already exited the tree.**

- Cutting and Solar Treatment Onsite (with or without plastic): Infested trees cut down, limbed, and cut into 4-foot sections, stacked on site in sunny location, and covered in plastic; if not covered in plastic, logs must be turned every 30 days, so all log sides are exposed to sun/heat.
- Cutting and Debarking Onsite: Infested trees cut down, limbed, and bark removed.
- Chemical control options for MPB larvae have been greatly limited in recent years. At present, there are no labeled pesticides for use on MPB. ([CSFS MPB](#)).
- Cutting and Removal: Both Jefferson County and the Colorado State Forest Service recommend treating cut down MPB trees on site. If cut down trees are removed, they must be taken to an approved location for MPB infested wood, so as not to spread the beetles without treatment.

Additional prevention and treatment resources.

Colorado State Forest Service

- [Product Use to Prevent MPB](#): chemicals (spray or soil), pheromones, natural/organic, microbial.
- [Verbenone Pheromone FAQs](#): Q&A on use of Verbenone Pheromone
- [MPB Contractor List](#): forestry contractors that have indicated an interest or capability to conduct forest management practices for mountain pine beetles on the central and northern Front Range.

US Forest Service

- [MPB Leaflet](#): thorough fact sheet on MPB, with info on preventive insecticides, pheromones, and tree health management.

Jefferson County Colorado

- [MPB Treatment Options](#): tree/forest management, insecticides, pheromones, infested tree treatment.
- [Choosing a Contractor](#): resource page for choosing a contractor for MPB.

Jefferson County Approved Disposal Site:

[Tincup Ridge Location.](#)

The Tincup Ridge location will accept MPB infested logs up to 6" diameter and 8' in length. This is For Jeffco residents only (no contractors). Infested materials can be dropped off outside of MPB flight season (prior to June 15th, after September 30<sup>th</sup>).

