

IDENTIFYING BEETLE-ACTIVE VS. BEETLE-SAFE TREES

1. Needles

- Green → Alive or dying; beetles may be active
- Yellow → Early decline; assume active
- Red (“red-top”) → Recently killed; high risk
- Gray / needles gone → Long-dead; low risk

2. Bark

- Tight, doesn’t flake → Moist inner bark; beetle habitat
- Cracking but attached → Transition; treat as active
- Falling off in sheets → Fully cured; beetles gone

3. Trunk Signs

- Pitch tubes (sap blobs) → Active or recent attack
- Frass (reddish sawdust) → Larvae likely present
- Clean trunk, no frass¹ → Usually safe

4. Inner Bark Test

Peel a hand-sized piece:

- Moist, reddish, winding galleries → Active
- Dry, pale, crumbly, empty galleries → Safe

5. Wood Condition

- Moist, yellowish sapwood → Recently dead; treat as active
- Dry, cracked, light-colored → Cured; safe

6. Sound Test

- Dull thud → Moist interior; possible beetles
- Hollow ring → Dry; beetles gone

RISK & ACTION

- High (recent kill) → Cut & split same day; sun-dry; burn on-site
- Medium (transition) → Split immediately; monitor stacks
- Low (long-dead) → Safe to cut anytime

Batch Processing Workflow for Piñon Beetle-Kill Trees

This workflow is built for large acreage with mixed-stage mortality, where efficiency and containment matter.

STEP 1 — Survey & Tag (1–2 hours per section)

Walk the property in zones (e.g., north ridge, arroyo line, cabin perimeter).

For each tree:

- Green/yellow needles → Skip for now

- Red needles or tight bark → Tag RED (high-risk)
- Cracking bark, partially dry → Tag YELLOW (medium-risk)
- Gray, bark falling off → Tag GREEN (safe)

STEP 2 — Prioritize Cutting Order

1. RED trees first
 - These are the ones most likely to contain live larvae.
 - Cutting early prevents emergence in spring.
2. YELLOW trees next
 - Still may harbor beetles but drying fast.
3. GREEN trees anytime
 - No urgency; process when convenient.

STEP 3 — Cut & Split (Same Day for RED/YELLOW)

For RED and YELLOW trees:

- Drop the tree
- Buck into rounds
- Split immediately to expose inner bark
- Leave bark on the ground in full sun (kills larvae quickly)

For GREEN trees:

- Normal firewood workflow is fine
- No special precautions needed

STEP 4 — Stack for Solar Sterilization

Especially for RED/YELLOW wood:

- Stack in full sun
- Keep off the ground (rails, pallets)
- Top-cover only (metal roofing, plywood, or tarp)
- Leave sides open for airflow
- Avoid shade from structures or other stacks

Solar exposure in Catron County is extremely effective at killing remaining larvae.

STEP 5 — Monitor Stacks (First 4–6 Weeks)

Check for:

- Fresh frass at the base
- Bark loosening
- New exit holes

If you see fresh frass:

- Re-split thicker rounds
- Increase sun exposure
- Spread pieces out temporarily

STEP 6 — Burn On-Site

Once fully dry:

- Burn in your woodstove
- Avoid transporting recently killed wood off-property

This prevents accidental spread to neighboring piñon stands.

STEP 7 — Long-Term Management

- Remove dead trees near structures first (fall risk)
- Leave some long-dead snags for wildlife if desired
- Thin dense piñon clusters to reduce future beetle vulnerability
- Maintain spacing to improve airflow and tree resilience

SEASON: Jan–Feb

Beetle Activity: Dormant

Safe to Cut: YES (all trees)

What to Cut: Red-top, transition, long-dead

SEASON: Mar–Apr

Beetle Activity: Warming; larvae maturing

Safe to Cut: YES (urgent)

What to Cut: Any tree with larvae risk

SEASON: May–Jun

Beetle Activity: First flight period

Safe to Cut: NO (except long-dead)

What to Cut: Only fully cured trees

SEASON: Jul–Aug

Beetle Activity: Second flight period

Safe to Cut: NO (except long-dead)

What to Cut: Only fully cured trees

SEASON: Sep–Oct

Beetle Activity: Activity dropping

Safe to Cut: YES

What to Cut: Red-top, transition

SEASON: Nov–Dec

Beetle Activity: Dormant

Safe to Cut: YES (all trees)

What to Cut: Any tree

Explanation of “YES (urgent)” for the Mar–Apr season:

During March and April, beetle larvae inside recently killed piñon trees are finishing their development. If those trees remain standing until May, the adult beetles will emerge during the first major flight period and can spread to healthy trees. Cutting and splitting these trees in March or April exposes the inner bark to air and sunlight, which kills the larvae before they can emerge. March and April are the last effective months to neutralize beetle-active trees before the May–June flight season begins. Once May arrives, cutting a recently killed tree becomes counterproductive because the scent of fresh-cut piñon attracts flying beetles. That is why the Mar–Apr window is marked as “YES (urgent)”—it is the final opportunity to safely process beetle-active trees without increasing beetle activity.

¹ In the context of bark beetles, **frass** refers to a mixture of fine wood shavings (boring dust), larval excrement (poop), and sometimes boring debris that is produced by the beetles as they tunnel through the tree's phloem and inner bark.

This material is often ejected from entrance or ventilation holes, acting as a key indicator of infestation.

Here are the critical aspects of frass in a bark beetle context:

- **Appearance:** It often looks like fine, reddish-brown to white sawdust or powder, sometimes resembling fine boring dust that collects in bark crevices, at the base of the tree, or on spider webs.
- **Identification Tool:** The presence of frass on the exterior of a tree is one of the earliest signs of a bark beetle attack.