

NEW MEXICO TREE FARM

BULLETIN



FROM FOREST TO FIREPLACE: HEAT VALUE OF NEW MEXICO WOODS

A guide to common New Mexico species and the heat you can expect from each

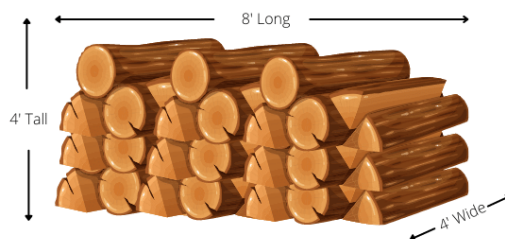
Written by: Todd Haines, NM Tree Farm Program, Inspector Coordinator

From cozy living rooms to off-grid cabins, wood heat is a go-to across New Mexico—especially for families connected to the forest, like Tree Farmers. Below, you'll find a quick guide to common tree species found on New Mexico Tree Farm properties—and the heat you can expect from each when it's burned.

First, a few definitions.

- **Cord (of firewood):** The standard unit for buying and stacking firewood—128 cubic feet of tightly stacked wood (bark and air space included). Most commonly this is 4 ft x 4 ft x 8 ft, but any dimensions that total 128 cubic feet qualify.
- **BTU (British Thermal Unit):** The energy measure used below for apples-to-apples comparisons (you'll see it on your gas bill, too). One BTU is the energy needed to raise one pound of water by 1°F.
- **Seasoned wood:** Firewood dried to under 20% moisture. Drier wood ignites easier, burns hotter and cleaner, and delivers more usable heat per cord.

Cord Of Firewood



4TH QUARTER
2025

OUR MISSION

To promote the growing of renewable forest resources on private lands while protecting environmental benefits and increasing public understanding of all benefits of productive forestry.

The American Tree Farm System (ATFS), a program of the American Forest Foundation, is committed to sustaining forests, watershed and healthy habitats through the power of private stewardship.

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Resources to help empower landowners

"Chop your own wood and it will warm you twice." –Henry Ford

Now for the values.

Values below come from multiple reputable sources. You may see slight differences by source, but the figures are reliable for **comparing species**. Notes are included on burn characteristics—like pitch content (which can cause popping), aroma, and ash/soot behavior.

Wood Species	Million BTUs per cord	Notes
Piñon Pine	33.5	High resin, will pop, smells nice
Juniper SP	27-31	4 species found in NM
Locust	27.3	Thorns present
Douglas Fir	26.4	Will pop
Oak SP	25	Very good and preferred wood
Lodgepole Pine	25	Limited distribution in NM
Russian Olive	23	May smell; Use in stove only
White Fir	21.1	Very smelly when cutting
Elm SP.	19.5	Can smell; Closed stove only.
Spruce SP	16	Will pop
Ponderosa Pine	15.2	Most abundantly available
Aspen	14.7	Burns hot and fast
White Pine	14.3	2 species in NM
Cottonwood	13.5	Can smell bad; Use in stoves only
Tamarix	Not listed (Very Hot)	Very dense. Use on a limited basis, (Has been known to “Melt” Metal)

Numbers tell only part of the story. Choosing well-seasoned wood, matching species to the season, and tending your stack in New Mexico’s wind and sun will do just as much to keep your stove efficient—and your home warm.

By the time flame turns to coals, you’ve touched every step from forest to fireplace. The heat you feel in January is the return on attention paid in June—that’s the value of firewood: BTUs, yes, but also the quiet promise of work well timed.

The first frost clings to the grass, and the dog’s breath fogs in the porch light. You crack open the stove, lay two splits of **aspen** to wake the flame, then set a **piñon** log on the new coals. The glass clears, the stovepipe warms, and the house exhales. Out back, yesterday’s stack sits where the wind can do its work. That heat in your living room started months ago—measured, felled, split, and seasoned with patience.



Stewardship to stove.

Good firewood often begins as good forestry: thinning crowded stands, removing ladder fuels, and giving young trees light. Slash becomes habitat piles or mulch; the best rounds cure into winter comfort. Your cord represents both heat and healthier acres.

HOW TO READ THESE NUMBERS (WHY BTUS DIFFER)

Pound for pound, **all dry wood holds similar energy**. What changes by species is **density**. Dense woods (e.g., **oak, locust**) pack more pounds into a cord, so you get **more BTUs per cord** and longer burns. Lighter woods (e.g., **aspen, pine**) light fast and burn bright but deliver fewer total BTUs per cord. Use light woods for quick warmups; save dense woods for deep-cold days and overnight coals.

NEW MEXICO SEASONING BASICS (WHAT “DRY” REALLY MEANS HERE)

In our dry climate, seasoning is a **process**, not a sticker. Split early, **stack off the ground**, face the evening breeze, and **cover the top only** so sides can breathe.

- **Softwoods (aspen, pine, fir):** ~6–12 months if split small and well-stacked.
- **Hardwoods (oak, locust):** ~12–18+ months. A cheap moisture meter confirms it: **< 20%**. Dry wood **lights** without protest, burns hotter, and reduces creosote.

THE IRONWOOD STICK: A CLASSIC FIELD TOOL, REIMAGINED

Written by: Andrea Mackay, NM Tree Farm Newsletter Editor and Moose Creative Co., LLC owner | Invented by **Eli Jensen**, owner of **Ironwood Forestry, LLC**

For more than a century, the Biltmore stick has been a rite of passage in forestry—simple, rugged, and surprisingly versatile. The **Ironwood Stick**, invented by **Eli Jensen of Ironwood Forestry, LLC**, builds on that legacy with smart upgrades and an integrated learning experience, turning a single tool into a complete starter kit for real field inventory.

Unlike a one-off gadget, the Ironwood Stick is paired with the **Ironwood Academy** (accessible via QR Code on the stick), which uses 3D models and short lessons to teach the *why* behind each measurement. Put simply: it's both tool and teacher. **Scan the QR on the ad below** to explore the Ironwood Academy demos and see the Stick's features up close.

What it does (and why it matters)

With one stick you can perform the core measurements used in everyday forestry:

- **Tree Diameter (DBH):** Quick, repeatable diameter readings at 4.5 ft using calibrated scales—no batteries, no apps.
- **Tree Height:** Percent or angle method to estimate merchantable and total height—great for volume estimates and marking decisions.
- **Basal Area:** A built-in scale lets you assess stand density and stocking—perfect for thinning prescriptions and quick plot checks.
- **1-hr / 10-hr / 100-hr / 1000-hr Fuels:** Field cues and guides to classify surface and ladder fuels for fire behavior and mitigation work.
- **Linear Distance (inches):** A straightedge for spacing, plot layout, and field notes.
- **Compass Direction & Aspect:** Orient transects and note aspect for fuels and erosion assessments.
- **Instruction on board:** Diagrammatic prompts and QR-linked micro-lessons reduce the learning curve in the field.

Bottom line: With knowledge and desire, anyone can begin *practicing forestry*. For students, landowners, and youth crews, this is everything needed to get started—no truckload of instruments required.

Who it's for

- **Students & Educators:** A hands-on bridge from the classroom to the woods. Teach fundamentals with a single, affordable tool.
- **Private Landowners:** Walk your acres with confidence. Track growth, compare stands, and make better decisions with your forester.
- **Conservation & Youth Programs:** Equip crews for fuel surveys, stand exams, and trail projects without complicated gear.
- **Working Foresters:** Keep one in the truck. It's a tough, reliable backup when electronics stay on the charger.

How a five-minute plot might look

1. **Diameter:** At DBH, hold the stick at the marked distance from the eye, align to bark edges, read inches—record by species.
2. **Height:** Step back, sight the top and stump line, read percent, convert to feet—note merchantable vs. total height.
3. **Basal Area:** Use the built-in factor to tally “in” trees from plot center—stocking emerges in seconds.
4. **Fuels & Bearing:** Classify surface fuels and record a compass bearing for your photo point. Done.

How it compares to the classic Biltmore

Like the Biltmore, the Ironwood Stick uses simple geometry and fixed sight distances to turn line-of-sight into reliable estimates. The difference is the all-in-one layout (diameter, height, basal area, fuels, distance, compass) and the QR-linked Academy that teaches each concept with short, visual lessons. It's a modern take that respects the craft.

What it won't do (and why that's okay)

This isn't a replacement for laser hypsometers, clinometers, or production-grade inventory systems. You won't be running carbon audits or precision timber sale cruises with a single stick. But for training, quick assessments, youth projects, landowner walks, and day-to-day forestry decisions, it's exactly the right blend of accuracy, speed, and simplicity.

How to purchase The Ironwood Stick

As a private landowner, the Ironwood Stick will let you quickly measure trees and fuels to make smarter thinning and fire-mitigation decisions. Ironwood Forestry is in its early rollout phase. Until the website is live, please contact elijensen@ironwoodforestry.com or info@ironwoodforestry.com to inquire about ordering.

ironwoodforestry.com

THE IRONWOOD STICK

Where tradition meets technology...

We've combined old-school field knowledge with cutting-edge 3D modeling to create an all-in-one field tool...

...everything an aspiring forester needs to get started with *practicing forestry*

More than just a tool, the Ironwood Stick is a pathway to a career in forestry.

Equip a new forester today!

THE IRONWOOD ACADEMY

Every stick accesses 3D Learning!

FUELS

DIAMETER

BASAL AREA

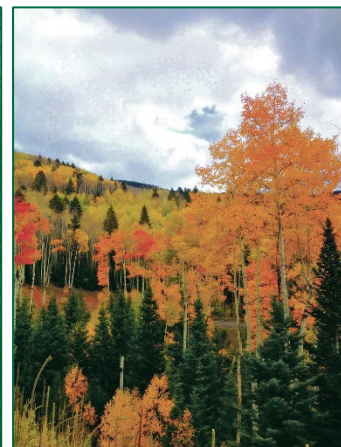
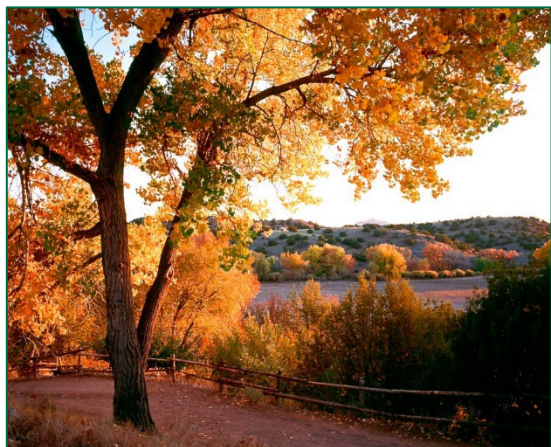
DISTANCE

COMPASS

HEIGHT

QR Code

FALL IS IN THE AIR



FALL/WINTER FIRE-PREP CHECKLIST

When the first freeze hits and winds pick up, small tune-ups make a big difference. Use this quick checklist to harden your home before winter and spring wind season.

Around the Home (0–5 ft)

- Clear pine needles, leaves, and bark mulch; swap to gravel or bare mineral soil.
- Remove firewood and lumber stacks; keep at least 5 ft from structures.
- Clean gutters/roof valleys; check under decks and steps for debris.

Near the Home (5–30 ft)

- Limb up trees to 6–10 ft (or 1/3 of tree height, whichever is less).
- Space shrubs/ladder fuels; keep shrubs 3–5 ft from siding and windows.
- Mow/cut grasses to <4 inches; rake along fences.
- Stage tools: shovel, rake, hose, and extinguisher; mark spigots.

Out to 100 ft

- Create breaks in continuous juniper/piñon; maintain 10 ft between crowns where possible.
- Prune along driveways for responder access (12 ft high × 12 ft wide).
- Post reflective address numbers at the road; verify gate codes.

Chimneys & Heat Sources

- Sweep chimneys/stovepipes; inspect baffles and spark arrestors.
- Test smoke/CO alarms; stock seasoned wood (<20% moisture).

Wind & Weather Readiness

- Walk fences and outbuildings; secure loose roofing/flashing.
- Know local Red Flag and No-Burn advisories; keep a radio/alert app.

When to Call a Pro

- Dense ladder fuels near propane tanks, complex roofs, or heavy tree work within 10 ft of lines. Ask for a forester or wildland-experienced arborist.

POST-MONSOON EROSION FIXES YOU CAN DIY

Monsoon bursts carve ruts and concentrate flow. These low-tech, rock-and-straw solutions slow water, spread it out, and keep soil on your land.

Read the Slope

- On gentle slopes (<6–8%), aim to slow and spread water.
- On steeper slopes, focus on armoring existing paths and safely conveying flow.

Quick Fixes for Two-Tracks & Paths

- **Rolling dips:** Shallow dips every 50–150 ft redirect water off the road.
- **Outslope** lightly so water sheets off instead of carving channels.
- **Armored outlets:** Place rock at each dip's exit to prevent scour.

Gullies & Small Draws

- **One-rock dams:** Single-layer rock berms across the channel, low in the center, keyed into banks. Space them so the toe of the upstream pond meets the crest of the next.
- **Media lunas** (crescent berms) on side slopes to nudge sheet flow into vegetated ground.
- **Rock rundowns:** Line short, steep drops with rock to keep erosion from moving uphill.

Hillside Sheet Flow

- **Straw wattles** (or brush bundles) on contour, staked and trenched 1/3 deep.
- **Rock mulch** around plant bases to slow splash and hold moisture.

Materials & Tools

- 3–8" angular rock, straw wattles, stakes/rebar, hand tamper, mattock, shovel, rake, level/string line, flagging.

Build Like Water Will Win

- Dig key trenches into banks/soil so structures can't undercut.
- Seed lightly behind structures; cover with mulch/rock for moisture.

When Not to DIY

- Tall headcuts, perennial streams, culverts on public roads, or work near cultural resources—consult a forester or an engineer.

HELPFUL RESOURCES

- [American Forest Foundation website](#)
- [American Tree Farm System | National website](#)
- [Family Forest Research Center](#)
- [Forest Management map viewer](#)
- [Guide to Resources for Private Forest Landowners in NM](#)
- [MyLandPlan.org](#)
- [National Association of State Foresters | NM website](#)
- [National Woodland Owners Association \(NWOA\)](#)
- [New Mexico Department of Game and Fish](#)
- [New Mexico Tree Farm Committee Members](#)
- [New Mexico Tree Farm Program website](#)
- [NM Energy, Minerals and Natural Resources Department \(EMNRD\)](#)
- [U.S. Forest Service](#)



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