

Know your firewood: a visual guide

By Ken Fosty

Every tree species has unique firewood qualities, from heat content to splitting ease to burn length and coal formation.

Hardwood trees (trees with leaves), as well as softwoods (trees with needles), have different heating values depending on their density. This heating value is measured in British Thermal Units (BTUs). A BTU is the amount of heat energy it takes to raise one pound of water one degree. Visualize a BTU as the amount of heat generated by one lit matchstick.

Let's look at some of the common Manitoba tree species.

Ash (green and black ash)

Green ash bark is grey-brown with long, narrow diamond-like fissures. Green ash grows in abundance along river banks and shorelines. Black ash is found in low-lying areas. Ash is easy to split, has a beautiful flame and a high heating value. These qualities make ash the Harley Davidson of firewood. Ash wood is ideal for stoves and fireplaces. Excellent long-lasting coals are produced for overnight heating longevity. These coals give off a red/orange glow with exceptional heat output and minimal ash. Ash produces 22.6-million BTUs per cord.



Aspen (white poplar)

Bark is whitish-grey with a powdery coating. Aspen grows almost everywhere, except low areas. Its cousin, balsam poplar (black poplar), loves wet feet, but makes for terrible firewood and has a relatively low heat output. (I was raised on a farm with only poplar firewood. If mixed with ash, birch, oak, pine or tamarack, the combination is unbeatable.) Aspen produces 15.5-million BTUs per cord.



Jack Pine

The bark of Jack pine is blotchy with shallow furrowed scales. Jack pine grows in dry, sandy areas. It's easily split into kindling and lights quickly. If it is mixed with other species, it provides an excellent balance. If used exclusively, there is a good chance for creosote build-up inside the chimney. The wood is light and pops and crackles a lot because of resin pockets. Excellent for campfires, and the wood smells nice. Jack pine produces 19-million BTUs per cord.



Birch (white birch)

The exfoliating bark of birch is white with thin dark strips (breathing slits for the tree). You can't miss it. Birch grows in a variety of sunlight-exposed habitats and loves to grow on shoulder transitions between high and low areas. The bark surrounding the firewood is practically air-tight, hence the need to split birch in order to prevent centre rot. Birch is a middle-of-the-road firewood choice with an aesthetically clean appearance. Birch produces 20.8-million BTUs per cord.



Oak (bur oak)

Bur oak bark is dark brown and deeply furrowed. The tree gets its name from its acorns, which look like burs from the burdock plant. Oak grows in dry areas, shallow limestone soils and river terraces. Oak tops the scale for heat production, but can be difficult to ignite and doesn't produce much flame. Its ability to produce long-lasting coals makes it a good choice for closed stoves where heat production is the goal. An excellent firewood. Oak produces 28.2-million BTUs per cord.



Tamarack (larch)

Tamarack bark is pinkish and somewhat flaky, with reddish inner bark. Tamarack grows in low, wet areas. This deciduous conifer is the only tree with needles that fall in autumn. It's something of an oxymoron in the evolution of trees as it is still deciding whether to be coniferous or deciduous. Also called larch, tamarack firewood is plentiful right now because the eastern larch beetle is killing most of the tamarack trees in eastern Manitoba. The wood is dense and has a very high heating value. I've heard stories of wood stoves and chimney pipes glowing from the extremely high temperatures that result when burning too much tamarack.



For more on firewood, visit WAM's **Wood-Wise Firewood Information Centre** online at www.woodlotmanitoba.com/wood-wise.

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