# Forestry Notes

# Splitting and Burning Firewood

**The ease of splitting and the burning qualities of wood can vary by tree species. Some split easier than others, and some have better burning qualities than others.**

## Ease of Splitting

Short lengths of straight-grained, knot-free wood usually will split easily. White oaks, ash, and maple split easier when green (wet). Red oaks and black oaks split easier when dry.

### Species that usually split easily

| | | |
|---|---|---|
| Ash, white | Elm | Oak, bur* |
| Basswood | Fir, white | Osage-orange |
| Cherry, black | Locust, honey | Spruce |
| Cottonwood | Maple, red | Walnut, black |
| Douglas-fir | Mulberry | Willow, black |

*Bur is a red oak

### Species that have a medium "split-ability"

| | | |
|---|---|---|
| Apple | Hickory, bitternut | Oaks, white |
| Birch, paper | Maple, silver | Pine, eastern white |

### Species that are difficult to split

| | | |
|---|---|---|
| Boxelder | Ironwood | Gum,black |
| Beech | Locust, black | Hickory, shagbark |
| Catalpa | Elm, Chinese | Plane, London |
| Elm, American | Elm, Siberian | Sycamore |

## Potential for sparking and popping

Throwing sparks can be a fire hazard. Trapped gases and water vapor can cause sparking. Proper drying before burning can minimize this problem.

### Species that pop and spark

| | | |
|---|---|---|
| Redcedar,eastern | Larch | Hemlock |
| Spruce | Tamarack | Yellow-poplar |

## Burning qualities of wood

The density or actual weight of wood fiber determines the amount of fuel value or burning quality of wood. Lightweight hardwoods of low density such as basswoods and yellow-poplar do not provide as much heat as heavier hardwoods such as white oak and black locust.

Softwoods, or conifers, such as pines, contain resins that burn at higher heat per pound than cellulose, the main constituent of wood. Even so, pines, spruces, firs and cedar produce less heat than hardwoods when measured by volume rather than weight.

**White ash is excellent firewood. It is easy to split, has a very high heat value, burns with little smoke, and as written long ago "Ash wet or Ash dry, a king shall warm his slippers by."** *Photo by Andy Kimm*

Softwoods are resinous; easier to ignite; burn more rapidly with a high, hot flame; burn out quickly and require more attention. Hardwoods are generally more difficult to ignite; burn less vigorously with a shorter flame; but last longer and produce more coals than softwoods.

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