

# Alaska Interior Region Firewood

**Note: BTU values taken from Purchasing Firewood in Alaska published 10/96**

## Firewood Hauling Capacities of Pickup Truck Beds

1 Cord = 128 Cubic Feet

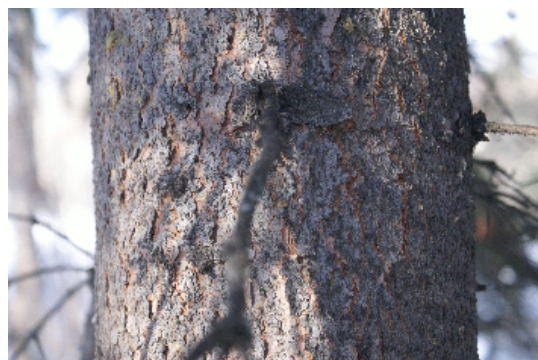
Truck Size	CF-1.5 CF Wheel Well	Truck Size	CF-1.5 CF Wheel Well
<b>FULL SIZE PICKUP W/8' BOX</b>	<b>68.5 CF</b>	<b>SMALL PICKUP W/6' BOX</b>	<b>30.5 CF</b>
Truckloads to equal a cord	1.9	Truckloads to equal a cord	4.2
<b>FULL SIZE PICKUP W/SHORT BOX</b>	<b>48.5 CF</b>	<b>SMALL PICKUP W/7' BOX</b>	<b>36.5 CF</b>
Truckloads to equal a cord	2.6	Truckloads to equal a cord	3.5
<b>FULL SIZE PICKUP W/8' STEPSIDE</b>	<b>48.5 CF</b>	<b>SMALL PICKUP W/8' BOX</b>	<b>42.5 CF</b>
Truckloads to equal a cord	2.6	Truckloads to equal a cord	3.0
<b>FULL SIZE PICKUP W/6.5' STEPSIDE</b>	<b>38.5 CF</b>		
Truckloads to equal a cord	3.3		

\*CUBIC FOOTAGE BASED ON FULL LEVEL BED

\*NOTE: WHEEL WELLS ARE 1.5 CF EACH



**Birch - 23,600,000 BTU/Cord**



**White Spruce  
18,100,000 BTU/Cord**



**Quaking Aspen  
16,600,000 BTU/Cord**



**Tamarack  
16,000,000 BTU/Cord**



**Black Spruce  
15,900,000 BTU/Cord**

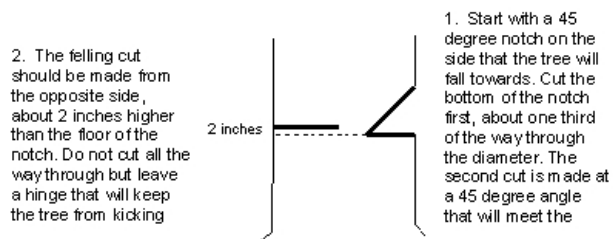


**Balsam Poplar/Cottonwood  
15,000,000 BTU/Cord**

## Chain Saw and Tree Falling Safety

1. Wear proper protection (eye protection, gloves, sturdy shoes, and hearing protection).
2. Park all vehicles out of reach of the tree you are falling.
3. Be sure the tree has a clear area to fall if possible.
4. Check the area behind you for obstacles in case you have to move fast if the tree falls the wrong direction.
5. Check the chain for obstructions before starting the saw.
6. Keep both hands on the saw, and both feet firmly planted on the ground when the engine is running.
7. Begin by cutting a wedge shaped piece approximately 1/3 of the diameter from the tree approximately 6 inches from the ground or less on the side of the tree in the direction you want the tree to fall. (See figure 1)
8. On the opposite side of the tree, start a cut about 2 inches above the wedge you previously cut. (See figure 1) Keep a close eye on the tree in case it starts to lean the wrong direction. Chain binding in the tree is an indication the tree wants to fall in the opposite direction of what was planned. Small trees less than 8 inches in diameter can sometimes be pushed in the direction you want them to fall once you have cut all but an inch or so of the tree. Continue cutting through the tree until it begins to fall. As soon as it begins falling, step back out of the way.
9. Choose the direction of fall according to the wind direction, if possible. If the tree must fall in a predetermined location, follow the procedures in 7 and 8 and periodically pound a plastic wedge behind your final saw cut (described in 8) to force the tree's weight towards the desired fall location.
10. Trim the branches off the tree. If the ground slopes, stand on the uphill side. Don't cut the branches that are propping up the log first.
11. Once you cut the tree into the lengths you want be careful to lift with your legs when loading the lengths onto a vehicle. Green wood can be very heavy!

Figure - 1



## Wood Burning Basics

### Burn Only Dry, Seasoned Firewood

Freshly cut wood contains up to 80% moisture, and must be "seasoned" (dried to 20-25% moisture content) before burning. Wood containing more than 25% moisture is "wet" or "green", and should never be burned in a fireplace or woodstove. If exposed to rain, a fallen tree will wet-rot before it ever dries enough to be used for fuel. To properly season firewood, cut it into stove-sized pieces and stack it so air can circulate and carry away the moisture as it evaporates through both ends of each piece. The woodpile must be sheltered to prevent rainwater from being re-absorbed, which reverses the drying process: firewood that is exposed to rain will rapidly become just as wet as it was when freshly cut. Wood must be cut into pieces and stacked out of the rain for at least 6-9 months to season properly. If no seasoned wood can be found, high-density compressed sawdust logs make an excellent substitute. Avoid burning mill ends in woodstoves, as the exhaust from even "untreated" mill ends has shown itself to be tremendously corrosive to metal.

### Burn The Wood Gases

Most of the moisture content remaining in seasoned firewood consists of wood resins. As wood heats up in the fire chamber, these resins emit combustible gases which, when ignited in the secondary burn chamber, can account for as much as half the heat output of the fire. When green or wet firewood is burned, the extra water content turns to steam and mixes with the wood gases, preventing them from igniting and releasing their heat value. When the draft control is set too low and the fire smolders, the wood gases won't ignite in the resulting oxygen-starved environment, even if the firewood is properly seasoned. When the wood gases aren't burned in the secondary burn chamber, they escape up the chimney, taking their heat value with them and creating heavy creosote formation.

### Follow These Wood burning Tips

- If steam bubbles and hisses out of the end grain as the firewood heats up on the fire, the wood is wet or green, and needs to be seasoned longer before burning.
- If a wood supplier advertises his wood as "seasoned", or claims that it has been "down" for a year or two or ten, be skeptical. Ask if the wood has been cut into pieces and stacked out of the rain for at least 9 months. If it hasn't, it isn't ready to burn.
- Shelter the woodpile from the rain, but don't cover it completely with plastic tarps or store it in an enclosed shed or garage; air circulation is necessary to ensure proper seasoning.
- Never burn garbage, or mill ends in a woodstove. These contain chemicals which, when burned, are highly corrosive to metal.
- Unless the stove is EPA approved, never try to make a load of fuel burn longer than 6-8 hours. EPA approved appliances have built-in safeguards to prevent smoldering, but many older airtight can be adjusted to smolder along for extended periods, resulting in heavy creosote deposits.
- Operate woodstoves with their draft control wide open for 20-30 minutes each time firewood is added, or until the fresh load is totally engulfed in flames. This will send heat up the flue to help solidify the liquid creosote deposited by the previous load, while kindling the wood to start gasification of the resins for efficient burning.
- NEVER try to clean a chimney by deliberately starting a chimney fire. Have the chimney professionally cleaned and inspected at least once per year.
- If a chimney fire occurs, close the draft control on the stove completely to quench the supply of oxygen, and call the fire department immediately. Then, make sure the chimney is thoroughly cleaned as soon as possible.