Stove and Lantern Permit: *Fuel Types*

FUEL TYPES FOR STOVES AND LANTERNS

If you are considering purchasing a stove or lantern, the only way to make your selection is to decide on the seasons and altitude you wish to use the appliance along with the fuel that gives you the best performance.

Cost, convenience and performance differ with each fuel type; so to make an educated purchase decision the following fuel guidelines will provide you with information that will help guide your decision.

 Propane Fuel	Most commonly used fuel with campers because of convenience and ease of use. There is no pumping or no priming of fuel. The user simply attaches the fuel cylinder to the appliance its ready to go. Gas canisters are pressure-regulated at 15 psi which ensure steady fuel pressure as the fuel is used which is much easier than using White gas. Downsides are that canisters can't be recycled, and in cold to freezing temperatures, the fuel does not perform well at all as the pressure in the canister is affected by air temperature. Cylinders weigh in at approx 2-3lbs which is the heaviest fuel canister of all fuel types. **Main advantages: Convenience of connectivity. Found in most stores. Constant pressure on fuel delivery.** **Main disadvantages: Weight of canister. Cold weather reduces fuel effectiveness Canister is not recyclable.**
 White Gas Fuel	Also called white gas or camping fuel. This fuel is good and burns hot in winter temperatures or at high altitude, unlike butane and propane. Coleman® Fuel is very refined, and burns hotter and cleaner better than other liquid fuels. It's relatively inexpensive and is commonly found in many stores. Downside is that the fuel needs to be pumped to maintain pressure. **Main advantages: Heat output and economy. Found in most stores.** **Main disadvantages: Evaporates quickly. Requires canisters to hold fuel. Poisonous. Lanterns or stoves that use this fuel need constant pumping to maintain pressure**
 Butane/Propane Fuel	Butane/Propane mix canisters are lightweight, re-sealable, and easily connect to stoves and lanterns. Most canister appliances are lightweight and simple to use, so if you rely on small size and weight this fuel canister is ideal. Downsides are that canisters can't be recycled, and in cold to freezing temperatures, the fuel does not perform well at all as the pressure in the canister is affected by air temperature. This fuel operates best in warm to hot conditions. **Main advantages: Convenience and light weight.** **Main disadvantages: Cold weather reduces fuel effectiveness. Canister is not recyclable. May need more lots of canisters for long trips.**
 Powermax™ Fuel	Coleman's exclusive high-performance butane/propane blend dramatically extends the operational range of backpacking appliances. High altitude and incredible cold do not affect this fuel. It's delivered via a liquid withdraw system that ensures consistent output, even when the fuel level in the canister is low. There is no pressure drop off that is experienced with propane and butane canisters, which rely on vapor pressure. Each Powermax® cartridge can be detached / reattached without leakage. Canisters are recyclable. This fuel can be used on regular Propane/Butane lanterns which make it a highly desirable fuel. **Main advantages: Four-season performance and lightweight, recyclable canisters.** **Main disadvantage: Fuel is more costly, may need lots of canisters for long trips**

Authors: Paul Young-Davies, Chuck Fraser, Chris Baldry, Garth Jonah
Version: 001: August 18th 2009