



# THE FARMSTEAD

THE BENEWAH COUNTY FARM BUREAU® NEWSLETTER  
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## GO GREEN WITH HEMP 100 MILLION GREEN JOBS IN 6 MONTHS

Hemp seed oil can be used as is in bio-diesel engines. Methyl esters, or bio-diesel, can be made from any oil or fat including hemp seed oil. The reaction requires the oil, an alcohol (usually methanol), and a catalyst, which produces bio-diesel and small amounts of glycerol or glycerin. Bio-diesel fuel, when co-fired with 15% methanol, produces energy with 1/3 less emissions than petroleum diesel.

Reduced emissions from coal-fired power plants and automobiles can be accomplished by converting biomass to fuel utilizing pyrolysis technology. Pyrolysis is the technique of applying high heat to biomass, or organic plants and tree matter, with little or no air. The process can produce, from lingo-cellulosic material (like the stalks of hemp), charcoal, gasoline, ethanol, non-condensable gasses, acetic acid, acetone, methane, and methanol. Process adjustments can be done to favor charcoal, pyrolytic oil, gas, or methanol, with 95.5% fuel-to-feed ratios. Around 68% of the energy of the raw biomass will be contained in the charcoal and fuel oils -- renewable energy generated here at home, instead of overpaying for foreign petroleum.

Pyrolysis facilities can run 3 shifts a day, and since pyrolysis facilities need to be within 50 miles of the energy crop to be cost effective, many new local and rural jobs will be created, not to mention the employment opportunities in trucking and transportation.

Hemp seed oil has historically been used as lamp oil. It is said to shine the brightest of all lamp oils. Hemp seed oil lit the lamps of Abraham Lincoln, Abraham the prophet, and was used in the legendary lamps of Aladdin. Anything which can be made from fossil fuels can be made from an organic substance like hemp. Toxic petrochemicals can be replaced with hemp oil.



*Bud Steinebach  
Benewah County FB Board Member*

### INCREASING GAS TAX AND REGISTRATION

Starting July 1st gas-taxes and vehicle registration fees will increase. A 7-cent gas-tax increase will bring the tax up to 32 cents per gallon. Registration fees will increase \$21.00 for vehicles weighting up to 8,000 lbs. and \$25.00 for all heavier vehicles.

### WANT TO LEARN MORE ABOUT HEMP?

If you are interested in learn more about hemp including what exactly it is (it is **not** marijuana, they are different plants grown for different purposes), what products are made from it, its history, and news about it, then please visit [hemp.com](http://hemp.com) or talk with your local FB board members.

**THE FARMSTEAD  
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**YF&R EVENT ABOUT COVER CROPS**

James Newberry, Seed Resources Division, Cenex Harvest States spoke about cover crops at a recent Farm Bureau Young Farmers and Ranchers (YF&R) activity on March 3, in Kendrick, Idaho. He said that cover crops are growing in the U.S. at the rate of about 30 percent per year, but are almost non-existent in the Pacific Northwest (PNW). "They are very popular in the mid-west as they can produce huge amounts of Nitrogen and they can break up hard pans in conventionally tilled soils." says Newberry.

Daikon Radish is a cover crop commonly grown in corn and soybean rotations in the mid-west with taproots that go down into the soil as deep as 6 feet. This crop also provides good coverage thus reducing erosion and drawing nutrients from deep under the surface that cannot be reached by cash crops. After being tilled under, Daikon Radish decomposes rapidly and deposits these nutrients in the upper soil profile. "Daikon Radish may or may not be a good cover crop for the PNW, but there are tons of others that can be looked at" says Newberry. There are many cover crop options for growers, but Universities in the PNW have done very little research in this area. Newberry says this is likely to change because of the potential agronomic benefits. Some cover crops like mustard act as a fungicide or bio-fumigant while some do a great job of holding the soil in place. Cover crop species with high forage quality can be selected to generate additional feed for grazing livestock on fields generally used only for cash crops.



James Newberry

Cover crops also improve soil health. "Mother Nature does not intend for soil to remain fallow and cover crops can contribute to more microbial and worm growth" says Newberry. Microbial growth and additional organic material in the soil increases water holding and nutrient holding capacity. Another benefit of having more organic material in the soil, according to Newberry is higher soil temperature. High organic content soil can see temperatures 6 to 8 degrees higher than low organic content soils and this allows growers to get into the fields much earlier in the spring.

The benefits of cover crops are many and it is just a matter of time before expansion of this beneficial agronomic tool takes place in the PNW. "Farmers that have embraced cover crops in wheat – 25 inch rainfall zones in the Midwest are experiencing 10 to 25 percent increases in yield" says Newberry. He indicated that the potential for cover crops in the PNW could be tremendous, but research needs to be ramped up considerably.

*Bob Smathers, FB Federation Regional Manager*

**NOXIOUS WEEDS**

Idaho has **67** noxious weeds on their species list. Idaho's Noxious Weeds Program, which includes identification and handling of weeds, can be found by going to [www.idahoag.us](http://www.idahoag.us) then clicking on Plants & Insects and finally Noxious Weeds. For more local info, call Benewah Extension Office: 208-245-2422.

If you suspect you have found a noxious weed the University of Idaho can help. 1) Take a photo of the suspect, 2) download a Weed ID Request Form from the Weed Diagnostic Lab - [www.cals.uidaho.edu/  
weeds2](http://www.cals.uidaho.edu/weeds2) & 3) send the photo and filled out form to the address on the form or email to: [ericksonweedid@uidaho.edu](mailto:ericksonweedid@uidaho.edu).



*Yellow Toadflax  
(Snapdragon-like flowers)*