

WFCNA 2008 Annual Meeting

# ENERGY EFFICIENCY AND ALTERNATIVE ENERGY IN THE NURSERY



---

**June 23–25, 2008**  
**DoubleTree Hotel Missoula Montana**

---



Sponsored by USDA Forest Service, Reforestation Nurseries and Genetic Resources Team.

Monday, June 23<sup>rd</sup>

7:00 PM Opening Reception

Tuesday, June 24<sup>th</sup>

7:45 AM Opening Welcome

Energy Efficiency and Alternative Energy in the Nursery

- 8:00 AM *Energy and Growing Within a Greenhouse Context: Managing Energy With Respect to Plant Development From Seed Germination Through Early Growth* — **Eric van Steenis**, Gro-Tec, British Columbia, Canada
- 8:35 *Wood Gasifier as a Source of Heat* — **Tom Jopson**, Cal Forest, Etna, CA
- 8:50 *Electricity and Handling of Seeds and Germination to Reduce Energy Inputs* — **Tom Jopson**
- 9:10 *Improvements for Energy Conservation at the Coeur d'Alene Nursery* — **Aram Eramian**, USDA Forest Service Coeur d'Alene Nursery, Coeur d'Alene, ID
- 9:35 Break
- 10:20 *Using a Wood Stove to Heat a Greenhouse* — **Gloria Whitefeather-Spears**, Red Lake DNR Forestry Greenhouse, Redby, MN
- 10:45 *The Itasca Greenhouse, Inc. Experience: Heating by Co-generation for More Than 25 Years* — **Bill Sayward**, Itasca Greenhouse, Inc., Cohasset, MN
- 11:10 *Geothermal Energy for Greenhouses* — **Jacky Friedman**, IFA Nurseries, Inc., Klamath Falls, OR
- 11:35 *Using Waste Oil to Heat a Greenhouse* — **Marla Schwartz**, Northwoods Nursery, Elk River, ID
- NOON Lunch (included with registration)
- 1:00 PM *How to Make Biodiesel From Waste Cooking Oil and Use it for Heating, Lighting, or Running Diesel Engines* — **Rico Cruz**, Confederated Tribes of the Umatilla Indian Reservation, Pendleton, OR
- 1:30 *Demonstration on Making Biodiesel* — **Rico Cruz**
- 2:15 Buses leave for field trip to Montana Conservation Seedling Nursery.

3:00 Tour of the Montana Conservation Seedling (MCS) Nursery.

**Tour overview:** The MCS Nursery produces 1.1 million bareroot and container grown seedlings on a 90 acre site in Missoula. The tour will view the container production facilities, large container production methods, bareroot production facilities, seed orchards, stooling blocks, and seed handling facilities. The equipment used in the above operations will also be available for viewing.

5:00 Buses leave for dinner on Donrovin Ranch. We will have an outdoor BBQ dinner at a small, private ranch surrounded by the Bitterroot and Sapphire Mountains and located on the Bitterroot River with over a half mile of river access. Optional free horseback riding will be available before the BBQ. Enjoy your refreshments and dinner at a beautiful Montana setting surrounded by mountains and a river. Find out more about the ranch at: [www.donrovinranchmontana.com](http://www.donrovinranchmontana.com). Optional dinner ticket is needed. See the registration form.

8:30 Buses return to hotel.

Wednesday, June 25<sup>th</sup>

Alternative Growing Media

- 8:00 AM *Growing Media Properties: An Overview* — **Tom Landis**, Consultant & Research Nursery Specialist, Central Point, OR
- 8:45 *Ponderosa Pine Performance in Peat/Vermiculite Versus Peat/Sawdust Media* — **Kas Dumroese**, USDA Forest Service, Moscow, ID
- 9:10 *Growing Interior Reforestation Stock, Abies Species, and Specialty Conifers in a Peat/Sawdust Media* — **Janice Schaefer**, Western Forest Systems Inc., Lewiston, ID
- 9:25 *Western Larch Response to Three Growing Media* — **Kent Eggleston**, USDA Forest Service Coeur d'Alene Nursery, Coeur d'Alene, ID
- 9:40 Break
- 10:10 *Soil Mix Trials at the Montana Conservation Seedling Nursery* — **John Justin**, Montana Conservation Seedling Nursery, Missoula, MT
- 10:25 *Preliminary Results on the use of Charcoal in Container Media* — **Tom Jopson**, Cal Forest. Etna, CA

# 2008 Western Forest and Conservation Nursery Association Meeting



10:40 *Woody biomass as a Substrate Component in Greenhouse Production* — **Glenn Fain**, Department of Horticulture Auburn University, Alabama

## General Nursery Topics

11:00 *Container Production of Sagebrush Seedlings: Container Effects and Cold Hardiness Development* — **Kayla Traver<sup>1</sup>**, **Anthony Davis<sup>1</sup>**, and **Kas Dumroese<sup>2</sup>**, <sup>1</sup>University of Idaho, Moscow, ID. <sup>2</sup>USDA Forest Service, Moscow, ID

11:20 *The Potential for Boom-mounted Remote Sensing Applications in Seedling Quality Monitoring* — **Rob Keefe** and **Anthony Davis**, University of Idaho, Moscow, ID

11:40 *Effects of Irrigation Frequency and Grit Color on the Germination of Lodgepole Pine Seeds* — **Jeremy Pinto** and **Kas Dumroese**, USDA Forest Service, Moscow, ID

12:00 Buses leave for field trip to the Confederated Salish and Kootenai Tribal Forestry Greenhouse. (Box lunch provided.)

**Tour overview:** Confederated Salish and Kootenai tribal forestry department has been growing conifers for reforestation efforts since 1975. In the last few years the nursery began growing containerized native plants for restoration projects on the Flathead Indian Reservation. In a state-of-the art facility constructed in 2002, over 30 different species native to Western Montana are grown, including but not limited to sedges, rushes, forbs, shrubs, and trees. The greenhouse also developed local seed collection areas and a seed cleaning, and seed storage facility

3:00 PM Buses return to the hotel.

## REGISTRATION FORM

NAME \_\_\_\_\_

ORGANIZATION AND/OR AFFILIATION \_\_\_\_\_

ADDRESS \_\_\_\_\_ CITY, STATE, ZIP \_\_\_\_\_

EMAIL \_\_\_\_\_ TEL/FAX \_\_\_\_\_

## Registration

	AMOUNT
ON OR BEFORE JUN 16	\$165 _____
AFTER JUN 16	\$195 _____
JUNE 24 DINNER (not included with registration)	\$40 _____

## Questions?

Call 888-722-9416 or 503-226-4562  
or email [michele@westernforestry.org](mailto:michele@westernforestry.org)

Western Forestry and Conservation Association  
4033 SW Canyon Road  
Portland, OR 97721, USA  
f: 503-226-2515 | [www.westernforestry.org](http://www.westernforestry.org)

## Payment Methods

1. Please make check payable to:  
WFCA  
4033 SW Canyon Rd.  
Portland OR 97221, USA

2. Purchase order # \_\_\_\_\_

3. Charge to:                      MC                      VISA                      AmEx  
(please circle)

Account # \_\_\_\_\_

Expiration Date \_\_\_\_\_

4. Register online at [www.westernforestry.org](http://www.westernforestry.org)

## 2008 Western Forest and Conservation Nursery Association Meeting

Western Forestry and  
Conservation Nursery Association

### Conference Location:

All conference activities will be held at the DoubleTree Hotel in Missoula, Montana. The hotel is located at 100 Madison in downtown Missoula. Additional driving instructions are available from the hotel by calling 406-728-3100.

### Overnight Lodging:

A block of reduced rate rooms is available at the DoubleTree by calling 800-222-8733 or 406-728-3100 or [www.doubletree.com](http://www.doubletree.com). Single rooms are \$96 plus tax with a government ID or \$149 plus tax without a government ID. Double rooms are \$106 plus tax with a government ID or \$159 plus tax without a government ID. Mention Forest Nursery Association to receive the reduced rates. After May 28, the reduced rates will be subject to availability. The hotel has an outdoor heated pool and airport shuttle.

### Registration:

The registration fee is \$165 if received by June 16 or \$195 if received after June 16. Separate tickets for the 6/24 dinner are available on the registration form. The registration fee includes a book of speaker materials, two lunches and daily refreshments. Checks should be made payable to Western Forestry and Conservation Association. Purchase orders, VISA/MasterCard, and American Express are accepted. Tax id # 930-331-712. No refunds for cancellations after June 16, but substitutions are always welcome. Registration is available on line at [www.westernforestry.org](http://www.westernforestry.org)

### SAF Continuing Education Credits:

Conference attendees will be eligible SAF CFE credits. Forms will be available at the conference.

### Optional Rafting Trip: Thursday, June 26

Montana River Guides in Missoula is offering an optional family-oriented whitewater raft trip. The trip will meet at 9 am on June 26 at the Holiday Inn in Missoula and transportation and lunch are provided. The cost is \$74/person. A more adventurous whitewater rafting trip is also available and information is located at [www.montanarafting.com](http://www.montanarafting.com).

### Rafting trip description:

The Blackfoot River pours into the Clark Fork River just east of Missoula's Hellgate Canyon. With its headwaters to the north in the Bob Marshall and Scapegoat Wildernesses, the Blackfoot tumbles out of the mountains, meanders through willow-choked meadows, and picks up speed again as it rushes toward Missoula. With its fast moving currents, clear pools, friendly whitewater, and mountain scenery, the Blackfoot is truly a classic Montana River. The tour can accommodate children ages 6 and up. Lunch is provided and no experience is necessary. Each raft will have a guide. Additional information is listed at [www.montanarafting.com](http://www.montanarafting.com).

### Reservations:

Call Montana River Guides at 800-331-raft or 406-777-4837 to sign up for the trip. A 50% deposit is required for all reservations. All major credit cards are accepted. Guests can change their reservation up until 48 hours before the trip without risking their deposit. Cancellations within 48 hours of trip departure forfeit their deposit. No Shows and cancellations the day of the trips are charged full trip price.

### Registration or conference questions:

Call Michele at 503-226-4562 or 888-722-9416 or [michele@westernforestry.org](mailto:michele@westernforestry.org)

Western Forestry and Conservation Association  
4033 SW Canyon Rd., Portland, OR 97221  
503-226-4562 | 888-722-9416 | Fax: 503-226-2515

Register online at [www.westernforestry.org](http://www.westernforestry.org)

Western Forestry and Conservation Association  
4033 SW Canyon Road  
Portland, OR 97221, USA  
503-226-4562

Nonprofit Org.  
U.S. Postage  
PAID  
Portland, OR  
Permit No. 4953