



ESF Outreach
SUNY College of Environmental Science & Forestry
Syracuse, New York 13210-2784

ESF OUTREACH
SUNY College of Environmental
Science & Forestry

Kiln Drying: Drying Quality Lumber for Profit



January 5 - 8, 2009
SUNY-ESF
Syracuse, NY

Sponsored By

State University of New York
College of Environmental Science and Forestry
Faculty of Construction Management
and Wood Products Engineering
Wood Utilization Service
New York Center for Forestry
Research and Development

In cooperation with

New England Kiln Drying Association

Kiln Drying Workshop

This course will provide practical knowledge about how wood is effectively kiln dried, and scientific background on related wood properties and drying processes. It will have value for novice as well as experienced kiln operators, and sales, purchasing, marketing and manufacturing managers. Instruction, by university professors and various industry experts, will be in the classroom and through hands-on lab exercises using our modern kiln.

Instructor: Dr. Bill Smith, Workshop Director and Instructor. Please see our website www.esf.edu/outreach/kiln for a complete list of additional university professors and other drying and industrial expert instructors and topics.

Preliminary Program Topics

Monday, January 5 9:00 AM - 5:00 PM
9:00-9:30 pm Registration in Baker Lobby

Wood and Drying Fundamentals, Room 145, Baker Lab

9:30 am

Importance of Kiln Drying
Wood-Water Relations
Wood Structure, Anatomy and Properties
Moisture Determination

12:00 Lunch

Moisture Meters and Their Effective Use
Wood Shrinkage
Drying Degrade
Kiln Drying Specifications
Lab exercise – kiln operation

5:00 pm Dinosaur BBQ in Room 159, Baker Lab

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Kiln Drying Workshop: Drying Quality Lumber for Profit

Tuesday, January 6 8:15 AM - 5:00 PM

Managing Drying Operations

- 8:00am Continental breakfast
Managing Wood Drying Operations
Air and Predrying
Kiln Instrumentation
Controlling Kiln Operation
- 12:00pm **Lunch**
Steam Basics and Utilization
Kiln types - Steam, Dehumidification, Direct
Fire, Vacuum
Preparation for Drying
Lab exercise - kiln operation
- 5:00pm *Dinner on your own*

Wednesday, January 7 8:15 AM - 5:00 PM

Dry Kiln Operation and Maintenance

- 8:00am Continental breakfast
Kiln Schedules: Use and Modification
Kiln Start-Up Procedures
Dry Kiln Operation-Controllers,
Mechanical Components, Maintenance
Dehumidification Kiln Drying
- 12:00pm **Lunch**
Safety and Health Issues
Lumber Stacking and Kiln Loading
Drying Maple and White Woods
Drying Oak and related hardwoods
Drying Pine
Lab exercise - kiln operation, sample monitoring, schedule modification
- 5:00pm *Dinner on your own*
- 7:00 pm Syracuse University basketball vs. DePaul at the Carrier Dome, *tickets on your own*

Thursday, January 8 8:15 - 3:30 PM

Lumber Quality

- 8:00am Continental breakfast
Equalizing: Drying Stress Development, and Conditioning
Wood Decay, Fungi, Stain and Mold
Effect of Air Velocity on Drying
Control of warp, checking, splitting, honeycomb
- 12:00pm **Lunch**
Statistical Process Control - Kiln, Lumber and Moisture Sampling, Bill Smith
Lumber Storage and Moisture Control
Redrying Wetted Lumber
Conserving Energy in Kiln Operations
Wood resource Issues
- 3:30pm **Course concludes**

Lodging: A block of rooms is reserved at the Renaissance Hotel, 701 East Genesee Street, Syracuse, New York 13210, Tel. (315) 479-7000. To reserve a room at a special rate of \$115 per night, call (315) 479-7000 and mention codes: **kdckdcg-** for king occupancy or **kdckdcs-** for double occupancy at the SUNY-ESF Kiln Drying workshop.

Rooms are available at the Sheraton University Hotel, 801 University Ave. within walking distance. Call 1-800-395-2105 to arrange a room at the current rate.

To Register: *By Credit Card ONLINE* or complete and mail the attached registration form with your registration fee or fax to (315) 470-6890.

Workshop Fees: Registrations received by December 17 are \$445. If received after December 17, the fee is \$495. The workshop fee includes Dinosaur BBQ dinner on Monday, breakfast and lunch on Monday, Tuesday, Wednesday and Thursday, break refreshments, parking at Irving Garage and drying textbooks and workshop materials. **Group rates available!**

Refunds: Participants who wish to cancel must give **written notice** two weeks prior to the event date to receive a refund minus an administrative fee of \$50. Substitutions are permitted any time. SUNY-ESF reserves the right to cancel in the event of insufficient registrations. A full refund will be given if a program is cancelled due to insufficient registrations.

Questions? Please see our website: www.esf.edu/outreach/kiln

Dr. Bill Smith, Workshop Director and Instructor. Visit us on the web for a complete list of additional university professor and other drying and industrial expert instructors and topics.

Hurry! Space is limited!

Registration Form

Kiln Drying Workshop Drying Quality Lumber for Profit

Please **PRINT** clearly (one name per form)

Name _____

Organization _____

Address _____

City _____ State ____ Zip _____

Phone (____) _____ Fax (____) _____

email: _____

Dietary or special needs: _____

Register me for the Kiln Drying Workshop on January 5 -8, 2009.

Fees:

- o **received** by December 17: \$445
- o **received** after December 17: \$495

Secure and FAST! Two ways to Pay:

- Pay **ONLINE with Visa or Mastercard** (no American Express) at <http://www.esf.edu/outreach/pd/2009/kiln/>. Your registration will be processed immediately and securely online when you pay online with a credit card.
- Check - Please make checks payable to "SUNY Research Foundation". Mail or fax your registration form to:

ESF Outreach, 221 Marshall Hall, SUNY College of Environmental Science & Forestry, Syracuse, NY 13210-2784, FAX: 315-470-6890

We must receive both registration information and payment to confirm a reservation. Registrations received less than 10 days before the scheduled event will not be confirmed. SUNY ESF reserves the right to cancel a program due to insufficient enrollment and in such cases a full refund will be given.