

Name _____
Last First

Name for Name Badge _____

Job Title _____

Company Name _____

Business Address _____

City _____ State _____

Postal Code _____ Country _____

E-Mail _____

Business Phone _____

Business FAX _____

Special Dietary Needs: _____

CANCELLATION POLICY: A 10% service fee will be charged for all registrations cancelled after deadline.

Payment Options Tuition: \$800 US

Check (Must be payable to Northern Crops Institute and be drawn on a U.S. bank.)

Wire transfer (Contact NCI for information.)

Credit Card Authorization:

Visa Mastercard Discover

Card # _____

Expiration Date _____

3-digit V Code *Required _____ (on back of card beside signature line.)

Name on Card _____

Signature _____

Credit Card Billing Address _____

Mail or fax this completed form to:
Northern Crops Institute • Bolley Drive - NDSU
Fargo, ND, USA 58105-5183 • Fax: 1-701-231-7235

Registration Fee: Tuition is \$800. Payment in full is due before start of course. Registration deadline is September 29. Course fee includes written materials associated with lectures and lab demonstrations and scheduled breaks. Hotel rooms and meals are not included in registration fee.

Groups of three or more: Special rates are available to groups of 3 or more from the same company. Contact NCI for more information.

Cancellations: Cancellations received after September 29, 2009 will be assessed a 10% service fee.

Course Schedule: On the first day of class, course participants should be in the hotel lobby by 8:00 a.m. for transportation to the campus. Class begins at 8:30 a.m. on Tuesday, October 20 and concludes at 4:00 p.m. on Thursday, October 22.

Non-smoking environment. Casual business attire.

Daily Transportation: Daily complimentary transportation will be provided between NCI and the hotel.

Hotel Information:

Expressway Suites
4303 17th Avenue South, Fargo, North Dakota 58103
Phone: 701-239-4303 Fax: 701-356-6712
Single Room Rate: \$ 74.95 (+10% tax)/night.

Make your reservation directly with the hotel and mention that you are with Northern Crops Institute in order to obtain the special rate. Reservations must be received by the hotel by September 29, 2009 to qualify for the special rate. All hotel rooms are non-smoking.

Information and Special Requirements: If you have questions or special needs (dietary or physical requirements), please contact:

Northern Crops Institute
NDSU Dept. 7400
PO Box 6050
Fargo, ND 58108-6050 USA
Phone: 701-231-7736 Fax: 701-231-7235
E-mail: nci@ndsu.edu Internet: www.northern-crops.com

NDSU is an Equal Opportunity Institution. This publication will be made available in alternative formats upon request (701-231-7736).

Pulse

Quality and Utilization Short Course

October 20-22, 2009



Northern Crops Institute
Fargo, North Dakota, USA

Co-sponsored by the
Northern Pulse Growers Association



Connecting in the Global Marketplace



WHY SHOULD YOU ATTEND?

Pulses (edible beans, peas, lentils and chickpeas) are nutritionally diverse crops that could be successfully utilized as a food ingredient or a base for new product development. Pulse crops provide a natural food grade ingredient that is rich in lysine, dietary fiber, complex carbohydrates, protein and B-vitamins. The renewed interest in pulses as a food source is due to findings that suggest that pulses can provide a variety of health benefits such as reducing heart disease and diabetes.

This course highlights pulse breeding, nutritional benefits of pulses, sourcing pulses, pulse quality evaluation, milling of pulses, utilization of pulses in food systems (bread, pasta, soup, extruded snacks and canned products).

Lectures will be supplemented by hands-on experience in NCI's grain grading, analytical, baking and processing laboratories.

COURSE GOALS

- Provide assistance to food companies in developing new products
- Provide solutions on pulse quality and processing
- Utilize pulses in the functional food industry
- Provide technical information on the use of pulses as an ingredient

NORTHERN PULSE GROWERS

The Northern Pulse Growers Association (NPGA) is a nonprofit association representing dry pea, lentil, chickpea, lupin and fava bean growers from Montana and North Dakota.

COURSE FACULTY

Dr. Gerald Combs Jr.
Director
USDA Human Nutrition Center
Grand Forks, North Dakota

Clifford Hall III, Ph.D.
Assistant Professor
Dept. of Cereal and Food Sciences
North Dakota State University
Fargo, North Dakota

Thunyaporn Jeradechachai
Crop Quality Specialist
Northern Crops Institute

Kevin McPhee, Ph.D.
Associate Professor
Dept. of Plant Sciences
North Dakota State University
Fargo, North Dakota

Juan Osorno, Ph.D.
Assistant Professor
Dept. of Plant Sciences
North Dakota State University
Fargo, North Dakota

Deepa Shenoy, CEO
Health for All Seasons LLC
Mountain View, California

Brian Sorenson
Director
Northern Crops Institute

Mehmet C. Tulbek, Ph.D.
Technical Director
Cereal Processing Engineer
Northern Crops Institute

WHO SHOULD ATTEND?

- Senior administrative professionals
- Research and development professionals
- Product development scientists
- Quality control managers and purchasing professionals of baking, milling, pasta & noodle, puffed snack, breakfast cereal, soup and canning companies

PROGRAM SCHEDULE

TUESDAY, OCTOBER 20

- Edible bean breeding program and variety selection
- Dry pea, lentil and chickpea breeding program and variety selection
- Pulse quality evaluation & 2008 Dry Pea Quality Survey
- Pulse quality evaluation (lab demo)
- Pulse milling & product specifications
- Fractionation and pulse milling

WEDNESDAY, OCTOBER 21

- Flour and semolina selection for pulse fortification
- Physical properties of pulse flour on dough systems
- Functionality of pulse flour products
- Utilization of pulses in baked products
- Use of northern pulses in soup products
- Nutritional benefits of pulses and pulse-fortified products
- Antioxidant properties of pulses
- Utilization of pulses in pasta and noodles

THURSDAY, OCTOBER 22

- Food aid specifications of pulses
- Antinutritional properties of pulses
- Functional trends in pulse foods
- Utilization of pulses in extruded snacks
- Use of northern pulses in canned products
- Sourcing pulses
- Presentation of certificates

NORTHERN CROPS INSTITUTE

Northern Crops Institute (NCI) is the international center for meeting and learning about northern grown crops produced in the four-state region of Minnesota, Montana, North Dakota, and South Dakota.