

**Registration Form**  
**Flaxseed: Adding Functional Food Value**  
Registration Deadline is April 7, 2009.

**A Technical Course**  
**Presented by Northern Crops Institute**

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 the deadline. Registration fee: \$750.

Check Make payable to Northern Crops Institute.  
Must be drawn on a U.S. bank.

Wire Transfer. Contact NCI for instructions.

Credit Card Authorization:

Visa  Mastercard  Discover

Card # \_\_\_\_\_

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

3-digit V Code \_\_\_\_\_

\*Required - located on back of card beside signature line.

Name on Card \_\_\_\_\_

Signature \_\_\_\_\_

Credit Card Billing Address \_\_\_\_\_

Mail or fax completed form to: Northern Crops Institute,  
NDSU Dept. 7400, PO Box 6050, Fargo, ND 58108-6050 USA  
Phone: 701-231-7736 Fax: 701-231-7235

**Registration Fee:** \$750. Payment in full is due before the start of the course. Registration deadline is April 7, 2009. Course fee includes written materials associated with lectures and laboratory demonstrations, and scheduled refreshment breaks. Hotel rooms and other 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 April 7, 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 8:30 a.m. for transportation to the campus. Class will begin at 9:00 a.m. on Tuesday, April 28 and adjourn at 4 p.m. on Thursday, April 30.

**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 April 7, 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).

# Flaxseed:

## Adding Functional Food Value Short Course

April 28-30, 2009



Photo Courtesy of Ameriflax

**Northern Crops Institute**  
**Fargo, North Dakota, USA**

**Co-Sponsored by Ameriflax**



**Connecting in the Global Marketplace**

## WHY SHOULD YOU ATTEND?

Flaxseed has traditionally been used as an ingredient in breakfast cereals and breads. However, in the last decade, a significant number of products containing flaxseed have been developed primarily for the health food market. The renewed interest in flaxseed as a food source is due to findings that suggest that flaxseed can provide a variety of health benefits such as reducing heart disease and cancer risks.

This course highlights nutritional benefits of flaxseed, flaxseed quality, milling of flaxseed, shelf life stability, utilization of milled flaxseed in bread (pan, hearth, pita, and tortilla), pasta, extruded snack and dairy products, and sensory properties of flaxseed in food systems.

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

## COURSE GOALS

- Assist the cereal industry develop functional food products
- Utilize flaxseed as a consistent ingredient for the functional food market
- Assist food professionals develop stable flaxseed fortified products
- Provide technical information on the use of flax seed as an ingredient

## WHO SHOULD ATTEND?

Senior administrative professionals, research and development managers, food product development scientists, quality control managers and purchasing agents of baking, milling, pasta & noodle, puffed snack and breakfast cereal companies.



## COURSE FACULTY

Dr. Wesley Canfield  
USDA-ARS  
Human Nutrition Research 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

James Hammond, Ph.D.  
Dept. of Plant Sciences  
North Dakota State University  
Fargo, North Dakota

Thunyaporn Jeradechachai  
Crop Quality Specialist  
Northern Crops Institute

Frank Manthey, Ph.D.  
Associate Professor  
Dept. of Plant Sciences  
North Dakota State University  
Fargo, North Dakota

Rilie Morgan  
Processing Specialist  
Northern Crops Institute

Brian Sorenson  
Director  
Northern Crops Institute

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

Charlene Wolf-Hall, Ph.D.  
Associate Professor  
Dept. of Veterinary and  
Microbiological Sciences  
North Dakota State University  
Fargo, North Dakota

## PROGRAM SCHEDULE

### Tuesday, April 28

- Flaxseed production and quality
- Quality evaluation of flaxseed
- Flaxseed storage
- Flaxseed milling applications
- Lab Demonstration: flaxseed milling applications
- Shelf life stability of milled flaxseed
- Functionality of milled flaxseed: physical properties of dough systems

### Wednesday, April 29

- Nutritional components of flaxseed
- Functionality of milled flaxseed: particle size distribution, foaming, water absorption, emulsification
- Flour and semolina selection with flaxseed fortification
- Lab Demonstration: physical properties of dough systems
- Baking with flaxseed (pan and hearth bread)
- Pasta processing with flaxseed
- Flaxseed use in dairy products

### Thursday, April 30

- Flat bread making with flaxseed (tortilla, pita)
- Lab Demonstration--Baking: tortilla, pita
- Use of flaxseed in extruded snack products
- Lab Demonstration--Extruded snacks
- Nutritional benefits of flaxseed and fortification applications
- Sensory evaluation of flaxseed fortified products
- Shelf life evaluation of flaxseed fortified products
- Microbial issues and quality evaluation in flaxseed products
- Course evaluations and certificates

**Classroom space is limited—register early.**