

Bridging Principles and Practices of Sustainable Cropping Systems - LRES 528.01
Tuesday 3:10 – 4 PM; 233 Linfield Hall

Instructors: **Dr. Perry Miller, 706 Leon Johnson, 994-5431, pmiller@montana.edu**
Dr. Bruce Maxwell, 717 Leon Johnson, 994-5717, bmax@montana.edu
Mac Burgess, 116 Leon Johnson, 994-5119, mac.burgess@gmail.com

Course Goal

The course goal is to provide an issue-oriented discussion format to link knowledge of cropping systems theory and practice. Students will be responsible for leading and participating in discussion.

Course Outline

Students will participate in discussion of cropping systems sustainability and help to highlight issues to target for in depth coverage within the semester. In 2009, it is the desire of the instructors to emphasize climate change implications for sustainable agriculture, reflecting bio-energy and food security. This course will meet 14 times throughout the semester. Important new dimensions in cropping systems reflect bio-energy and food security. Twice during the semester, each student will lead discussion on selected readings including a 15-min .ppt presentation to summarizing their interpretation, and raise key issues for discussion. Students will be assigned a paper two weeks before discussion, assign two questions (stimulated by that reading) to fellow students one week before discussion, and present a 10-15 minute .ppt summary to lead off discussion period.

The course is graded pass/fail based on presentation quality and participation during discussion.

Our aim is to be inclusive with the discussion so the instructors will monitor to ensure balanced group discussion.

Discussion Papers: TBD

Selected Internet Sites (for future reference; verified Aug 17, 2009)

Agricultural Science Organizations

American Society of Agronomy - www.agronomy.org/
Canadian Society of Agronomy - www.agronomycanada.com/
Ecological Society of America - www.esa.org/

Climate

25 x 25 – www.25x25.org/
Climate Change Articles www.heatisonline.org/
Climate Records (Great Plains) - www.wrcc.dri.edu/summary/climsmmt.html
Effects of climate change on agriculture, land resources, water resources, and biodiversity in the United States - www.climatescience.gov/Library/sap/sap4-3/final-report/default.htm
Environmental Working Group - www.ewg.org/
Intergovernmental Panel on Climate Change - www.ipcc.ch/
National Assessment on Climate Change - www.gcrio.org/
National Carbon Offset Coalition - www.ncoc.us/

Farm Commodity Associations

Alberta Pulse Growers Assoc. - www.pulse.ab.ca/
Canola Council of Canada - www.canola-council.org/
Flax Council of Canada - www.flaxcouncil.ca/

Montana Grain Growers Assoc. - www.mgga.org/
Northern Canola Growers Assoc. - www.northerncanola.com/
Northern Pulse Growers Assoc. - www.northernpulse.com/
Saskatchewan Pulse Growers - www.saskpulse.com/
U.S. Dry Pea and Lentil Council - www.pea-lentil.com/

Federal Agricultural Science Agencies
Agriculture and Agri-Food Canada Research Branch - www.agr.gc.ca/
USDA Agriculture Research Service - www.ars.usda.gov/main/main.htm

No-Till Agricultural Associations
Dakota Lakes Research Farm (Dwayne Beck, no-till guru) - www.dakotalakes.com/
Manitoba/North Dakota ZT Assoc. - www.mandakzerotill.org/
Pacific Northwest Direct-Seeding Systems - pnwsteep.wsu.edu
[Saskatchewan Soil Conservation Association - www.sasca.ca/](http://www.sasca.ca/)

Organic
USDA-ERS Organic production - www.ers.usda.gov/Data/organic/
Organic Agriculture Centre of Canada - www.oacc.info/
Organic Farming Research Foundation - ofrf.org/index.html

Provincial / State Agricultural Agencies
Alberta Agriculture - www.agric.gov.ab.ca/index.html
Montana Dept Agriculture - agr.state.mt.us/
Saskatchewan Agriculture and Food - www.agr.gov.sk.ca/

Special Crops Webpages
Purdue New Crops Compendium - www.hort.purdue.edu/newcrop/compendium/comp-toc.html
Saskatchewan Special Crops Research: paridss.usask.ca/specialcrop/index.html

Sustainable Agriculture
AERO - www.aeromt.org/
Council for Agricultural Science and Technology - www.cast-science.org/
Miller's Cropping Systems page - scarab.msu.montana.edu/CropSystems/
Natural Systems Agriculture - www.umanitoba.ca/outreach/naturalagriculture/index.html
Pesticide Free Production -
www.gov.mb.ca/agriculture/financial/youngfarmers/pesticidefreeproduction.html
Western SARE - wsare.usu.edu/