Introducing Winter Canola in the Wheat-Fallow Region of North Central WA

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Today’s Outline

• Why winter canola?
• Research
• Partnership
Okanogan and Douglas Counties of North Central, WA

The Pacific Northwest (USA)

- 60 - 70% of annual precip. is received in winter and early spring (Nov-Apr).
  Mediterranean climate!

- PNW dryland production regions (precipitation zones):
  1) high (18”-24”/year),
  2) intermediate (12”-18”/year),
  3) low (<12”/year).
Low Rainfall (<12")

F.L. Young

2-yr rotation
winter wheat, summer fallow

Shallow, rocky soils

D. Roe
Winter Annual Grass Control

- Jointed goatgrass (*Aegilops cylindrica*)
- Downy brome (*Bromus tectorum*)
- Feral ryegrass (*Secale cereale*)
Project’s Objectives

• Introduce winter canola production to local growers
• Create multi-agency partnership focusing on the Colville Confederated Tribes to improve human and animal health, self-sustainability, and stimulate the local economy by creating jobs locally.
Poor Stand Establishment

Fall 2005 (grower’s surrounding field)

Fall 2009 research plots
Why Winter Canola?

• Improve Pest Management Strategies
• Diversify markets
• Increase sustainability
• Late springs

Feral rye infesting winter wheat
Late Planting

- Fighting fires
- Moving cattle
- Planting wheat
- Harvesting wheat
Planted: 9-4-07

Rate: 2 lbs/A

600 lbs/A

Rate: 4 lbs/A

880 lbs/A

Rate: 6 lbs/A

875 lbs/A
Research Results (2008-2009)

1,340 lbs/A yield
August 25, 2008 planting
Planting rate: 4 lbs/A

1,240 lbs/A yield
August 25, 2008 planting
Planting rate: 8 lbs/A
820 lbs/A yield
August 19, 2009 planting
Planting rate: 4 lbs/A

1,355 lbs/A yield
August 19, 2009 planting
Planting rate: 8 lbs/A
Shovels vs. No Shovels ($\leq 2.5''$)

Planted without shovels
955 lbs/A (2009)
1,750 lbs/A (2010)

Planted with shovels
1,010 lbs/A (2009)
1,695 lbs/A (2010)
Pod Sealant

Performance ↓ with maturity

Grower’s non-shattered pods
Research plot’s shattered pods

Shattered seed on soil

Average seed loss 475 lbs/A
Successes

• Plant when mother nature tells you to.
• USDA Risk Management Agency used research data to procure winter canola crop insurance.
• When moisture <2.5 inches, don’t need shovels.
• Increased winter canola acreage greatly.
Growers’ 2010-2011 Canola Crops

Okanogan

Adams

Douglas
North-Central WA Canola Partnership

- Colville Confederated Tribes
- USDA-ARS
- USDA-NRCS
- Local schools, growers, & businesses
- WSU Extension
- WA State Biofuel Project
- WA State Department of Agriculture
Provide biodiesel for Tribe’s vehicles

Tribal and grower interest

Scientist and grower knowledge

Tribal crushing facility

Increased producer markets and increased job opportunities

Provide meal for livestock
Future Research

- Agronomics of spring canola.
- Cropping systems research.
- Expand research, partnership and outreach activities.
- Bring abandoned land out of abandonment and improve deteriorated pastures.
- Examine other oilseed crops.
Research Results (2009-2010)

Fall-killed winter canola
August 30, 2009 planting

Hailed-out crops
Douglas Co. Grower: “Winter wheat is now my rotational crop …” (200A winter canola in 2007 to 900 A in 2010)

Okanogan Co. Grower: “Winter canola is my money crop …”

Overall acreage has increased from 200A (2007) to >2,000A (2011).
Canola Recognition Day

Individuals of all segments of partnership participated