Canola 101

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Online Resources

Univ of Idaho, Washington State University, Pacific Coast Canola, U.S. Canola Association, Canadian Canola Council, etc.

Canola Encyclopedia
www.canolacouncil.org/canola-encyclopedia
Many common herbicide have plant back restrictions. Don’t seed before plant-back restrictions have expired.
Check Herbicide Labels

Many common herbicides have canola plant-back restrictions, including:

Ally, Amber, Assert, Beyond, Diuron, Everest, Finesse, Maverick, Olympus, Peak, Powerflex...
Herbicide Residue Injury
Choice of Crop

Irrigated Areas
- Winter canola

Wheat-fallow Zone
- Winter canola
  (deep furrow)

Low rainfall
- Annual crop
  - Camelina
  - Yellow mustard
Choice of Crop

Intermediate Rainfall
- Spring Canola
- Oriental Mustard
- Yellow Mustard
- Camelina
- Winter canola (fallow)

High Rainfall
- Spring Canola
- Oriental Mustard
- Winter canola (fallow)
Choice of Crop

Canola versus Industrial Rapeseed?
- same species, different oil quality
- new rapeseeds have edible meal
- restricted by districts in Idaho

Industrial Rapeseed
- premium price in some years
- be sure of your market
Crop and Variety Selection

Commodity Price
Performance
Seed Availability
Seed Cost
Herbicide Resistance
Disease Resistance
Availability of Production Contracts
Canola Species Selection

Brassica napus, B. rapa, or B. juncea??

B. rapa
- Polish canola
- Winter and spring
- Very early
- Shatter resistant
- No herbicide resistance

B. juncea
- Canola qual. mustard
- Spring only
- Early
- Shatter tolerant
- Clearfield varieties
Canola Species Selection

*Brassica napus*, *B. rapa*, or *B. juncea*??

*B. napus*
- Argentine canola
- Winter and spring types
- Highest yield potential
- Many varieties available
Data is available from over 10 years of trials conducted by University of Idaho personnel.
Fertility

Ongoing Fertility Studies

8 lbs of N / 100 lbs of seed yield
4:1 nitrogen to sulfur ratio
Test for Boron levels

Northern Idaho Fertilizer Guides

Winter Rapeseed: CIS #785
www.cals.uidaho.edu/edComm/pdf/CIS/CIS0785.pdf

Spring Canola: CIS #1012
www.cals.uidaho.edu/edComm/pdf/CIS/CIS1012.pdf
Seed Quality

Use Certified Seed
  reduce risk of Blackleg and other diseases
Check seed age and germination (seed tag)
Use treated seed
  reduce losses to insects
  reduce diseases
Seeding Rate

Depends…

400,000 to 500,000 seeds per acre
65,000 to 130,000 seeds per pound

Winter 3-6 lbs/acre
Spring 4-7 lbs/acre

Consider germination percentage
- roughly ¼ pound per 5% non-germinating seed.

4 - 5 lbs/acre
Seeding Dates

Spring Canola:
April 15 to May 15
Wait for soils to warm up
45°F and rising

Winter Canola:
Before August 30
Traditional Weed Control

Limited selection of herbicides

Good agronomic practices
  Preplant glyphosate
  Good plant establishment
    firm seed bed, packers on drill
    appropriate planting dates

Competitive stand
  moderate seeding rate
  good insect control
Traditional Weed Control

Preplant, Incorporated
Sonolan 10G or HFP (*ethalfluralin*)
Treflan TR-10*, Triflurex HFP* (*trifluralin*)

Postemergence Grassy Weeds
Select 2EC* (*clethodim*)
Assure II, Targa (*quizalofop P-ethyl*)
Poast (*sethoxydim*)

Postemergence Canada Thistle
Stinger, Clopyr Ag (*clopyralid*)
Herbicide-Resistant Canola

Clearfield Canola

fewer plant back restrictions

tolerant to imidazolinone herbicides

often cross-tolerant to sulfonylurea herbicides

very common mode of action (Group 2)

overuse increases chance of resistant weeds

non-GMO
Herbicide-Resistant Canola

Roundup Ready Canola
  High yielding spring varieties
  Broad spectrum weed control
Liberty Link
  Top yielding varieties
  Alternate mode of action
  Weak on some grasses
  tank mix with grass herbicide
Insect Pests
Seed Treatments

Helix Xtra/Cruiser 5FS
Prosper 400
Helix Vibrance
Prosper Evergol
Scout during wet springs even with seed trts.
Scout every 2 to 3 days in warm weather.
Spray at 20% defoliation.
Diamondback Moth

Cabbage Seedpod Weevil

Cabbage Aphid
Mid Season Pests

Cabbage Seedpod Weevil
   Winter canola, May and June
   2 to 3 per plant
   3 to 4 per sweep of 15-inch net

Diamondback Moth Larvae
   Spring canola
   10-15 per sq ft, or 10 per plant

Cabbage Aphid
   1 in 5 infested flower stalks
   look among unopened flower buds
Grasshoppers can be a problem in new winter canola stands in the late summer.

Scout your fields regularly...
Foliar Insecticides

*lambda-cyhalothrin* (Warrior...)
*zeta-cypermethrin* (Mustang...)
*bifenthrin* (Capture 2EC...)
*deltamethrin* (Battalion 0.2 EC...)
*gamma-cyhalothrin* (Declare...)
*pymetrozine* (Fulfill Aphidicide)
Canola Diseases

Blackleg

*Rhizoctonia* Stem and Root Rot

*Sclerotinia* White Mold

Disease Photo Acknowledgements

Tim Pauliz WSU
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Blackleg

Most important disease in Canadian Prairies and Midwest, but typically not found in the PNW.

ID and WA were considered blackleg-free; however, blackleg was found in Idaho in Boundary County in 2011 and in Nez Perce County in 2014.
Blackleg

Caused by a seed borne fungus. *Leptosphaeria maculans* aka *Phoma lingam*

Once it is established, can spread by splash or airborne spores.

Survives in crop residue, volunteers and weeds for years.
Where does it attack & cause symptoms?
Blackleg Management

**Prevention** - Start with disease-free, certified seed.

Use fungicidal seed treatments.

Crop rotation - 3 years between canola or *any* mustard family crop.
Rhizoctonia

Caused by *Rhizoctonia solani* AG 2-1
- Damping-off (seedlings do not emerge)
- Wirestem (stem girdling in young seedlings)
- Root rot
Wirestem
Rhizoctonia

Control

Worst in fallow-planted winter canola?
Crop rotation?
Canola race harbored by other crops.

New seed treatments (with insecticides)
Prosper Evergol
Helix Vibrance
Soil borne fungus, many broadleaf hosts
Prolonged moist soil conditions, usually after canopy closure
Most damage in wet springs or irrigated fields
**Sclerotinia White Mold**

Infects from sclerotia in field and by spores that are ejected and land on flower petals.

Needs wet and warm conditions.
**Sclerotinia Management**

**Control:**
- Use disease-free seed
- 4-year crop rotation from broadleaf plants

**Fungicides**
- Apply during flowering
- Only if *infection rate* is expected to be >20% or *score* is greater than 40

**Endura**  **Quadris Flowable**
Questions?

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http://www.cals.uidaho.edu/brassica/