

**GUIDELINES FOR SUPPORT FOR
REGISTRATION OF WINTER CANOLA CULTIVARS
FOR 2011/2012**

ONTARIO OIL AND PROTEIN SEED CROP COMMITTEE

CANOLA CO-ORDINATOR:

DR. HUGH EARL
DEPARTMENT OF PLANT AGRICULTURE
UNIVERSITY OF GUELPH
GUELPH, ONTARIO
N1G 2W1
(519) 824-4120 ext. 58568
FAX: (519) 763-8933
E-MAIL: hjearl@uoguelph.ca

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1. Introduction

Winter Canola Trials are conducted by research institutions and private firms in Ontario through the Ontario Oil and Protein Seed Crop Committee. The primary purpose of these tests is to obtain agronomic, disease, and quality information for use in supporting the registration of new winter canola varieties and in preparing lists of recommended varieties.

To be eligible for support for registration and recommendation, an entry must be tested for at least two years. Decisions on registration will be based on the performance of entries averaged over all valid test locations. Since 1990, it has been possible for private companies to conduct the first year of testing in their own trials.

OOPSCC conducts performance testing after an entry is supported for registration by OOPSCC. For these subsequent years of performance testing, there is no additional charge.

After 3 years of test results are gathered by OOPSCC, the performance of registered varieties is published on the OMAFRA website (www.gov.on.ca/OMAFRA/) and in an OMAF INFOsheet, as well as on the OOPSCC website (www.oopsc.org).

2. Membership

The Ontario Oil and Protein Seed Crop Committee (OOPSCC) is made up of individuals from the following public and private groups:

- OMAFRA
- Ontario Agricultural College (OAC)
- Ridgetown College (RC)
- Huron Research Station
- Kemptville College (KC)
- New Liskeard Research Station
- Eastern Cereal & Oilseeds Research Centre - (Ottawa - AAFC) (ECORC)
- Harrow Research Station - Agriculture and Agri-Food Canada (HRS)
- Ontario Oilseed Crushers' Association
- Ontario Soybean Growers' (OSG)
- Ontario Seed Growers Association (OSGA)
- Ontario Ag. Ec. Research Council
- Canadian Seed Trade Association (CSTA)
- Variety Registration Office (CFIA) (ex officio)
- Commercial Plant Breeders Group (CPB of CSTA)
- Ontario Soil and Crop Improvement Association (OSCIA)
- Ontario Canola Growers Association (OCGA)
- Canadian Grain Commission (CGC)

OOPSCC embodies two sub-committees:

- i) Planning and Assessment Sub-Committee
- ii) Variety Sub-Committee

3. Meetings

Annual meetings of the Variety Subcommittee and full OOPSCC are held in January to discuss trial results, to make decisions regarding support of eligible varieties, and to discuss changes or modifications to the testing program. Individuals who are not members of OOPSCC but are interested in the proceedings of these meetings may attend with the permission of the Chairman, Dr. Istvan Rajcan, or the Secretary, Dr. Hugh Earl. Other meetings will be convened as the need arises. A quorum is defined as 50% of the membership of OOPSCC or its subcommittees. Voting will be by show of hands. All members will vote on all motions unless a conflict of interest is declared.

4. Trials and Trial Management

4.1 Test Sites

In 2011-2012, public trials are planned at Elora, Harriston, St. Marys, Ripley and Thornbury. Specific locations may change without notice. Seed will also be distributed to cooperators in Atlantic Canada for yield testing at up to three sites in that region.

OOPSCC did not conduct winter canola trials in 2010/11, because it received no entries beyond those tested in the previous two years. The 2011/12 trials will be conducted only if at least two new entries are received.

4.2 Criteria for Acceptance of Entries for Testing.

i) Canadian Sponsors

Except in the case of public institutions or universities in Canada, entries may be entered in the Ontario Canola Tests only through a Canadian sponsor. A Canadian sponsor will be an individual or organization involved in an agricultural endeavour in Canada.

ii) Seed Requirement

For every line entered, 400 grams of seed are required. Seed should be submitted untreated. OOPSCC will treat all seed with Helix Xtra¹ for flea beetle and seedling disease control. A portion of the seed will be stored for possible testing of genetic identity.

Seed from outside Canada should be accompanied by the proper documentation. Please check with the Canada Border Services Agency and the Canadian Food Inspection Agency for importation details to avoid delays.

In 2010, up to five (5) first year entries will be accepted from any one sponsoring company.

iii) Germination

Sponsors of entries are encouraged to submit seed of good quality. A germination of at least 85% will be assumed.

¹ Registered Trademark Syngenta

iv) Varietal Descriptions

Information should be submitted with the seed to indicate erucic acid and glucosinolate content levels for the entry.

In order to be supported for registration, an entry must have less than 0.5% erucic acid in the oil and less than 18 micromoles total glucosinolates per gram seed at 8.5 % moisture. This requirement makes it necessary that companies or institutions making entries have already determined that their entries are low in these quality parameters.

Testing for erucic acid content may be performed prior to planting at the discretion of OOPSCC. The maximum allowable level for erucic acid in the oil will be 0.5%. Samples above that level will not be tested in the trials. Glucosinolate contents will be measured on the harvested seed for varieties to be supported for registration.

v) Evaluation of Special Attributes

At the time of entry, special attributes of entries should be made known to the Coordinator. This ensures that fair testing will be done for each entry. Lines with significant quality characteristics, such as unique protein or fatty acid profiles, herbicide resistance or semi-dwarf growth habit should be identified so they can be evaluated fairly.

vi) Deadline for Entries

Application forms and seed must be received by **August 12, 2011**. Send to:

Dr. Hugh Earl
 Dept. of Plant Agriculture; Crop Sci. Bldg.
 University of Guelph
 Guelph, Ontario N1G 2W1
 (519) 824-4120 ext. 58568
 (519) 763-8933 FAX
 hjearl@uoguelph.ca

Seed **must** be received by this date to allow for germination testing, treatment, packaging, and distribution prior to planting time. Entry forms may also be sent ahead of time via fax or email.

Sponsors will be invoiced for entry fees after trials have been established. Fees will be payable 30 d after the date of invoice.

4.3 Security of Entries

If an entry is made under a name or number different from that used previously, both names or numbers must be listed at the time that the entry application is made. If an entry is a backcross-derived strain of a variety recommended in Ontario, please indicate to this effect.

Seed of entries that are strains or varieties not registered in Canada will be used only for the indicated test purposes. Seed and/or pollen will not be used for breeding purposes by the test co-operators, nor will it be given out to unauthorized individuals, except under conditions specified by the sponsoring company, institution or

individual. Each cooperator will be required to sign a statement indicating that he agrees with the above conditions.

4.4 Private Tests

Companies may conduct the testing for registration purposes in their own private trials, providing the following criteria are met:

- 1) Companies will test at a maximum of four locations in Ontario, with a minimum of two valid tests required each year.
- 2) There is no limit to the number of private entries which may be included in these trials.
- 3) Companies are responsible for collecting the appropriate field and seed data, analyzing and submitting the results to the coordinator by Dec. 1, 2011.
- 4) Quality analyses will be conducted at the Dept. of Plant Agriculture, University of Guelph, on lines to continue into a second year of testing and on lines to be considered for support for registration, and on checks from these trials. Seed for each entry in each trial will be bulked over replications and 100-gram samples will be sent to the coordinator by Oct. 1, 2011. The fee for conducting these analyses will be \$45 per sample, plus HST.
- 5) A maximum of five entries may be carried forward into the second year of testing during any one year. For consideration for support for registration, the two years of private data will be averaged over the total number of station-years. A fee of fifty dollars (\$50.00) per entry will be payable, to OOPSCC, for each entry to continue into the second year of testing or to be considered for support for registration to cover the cost of maintaining and preparing the data for the committee.
- 6) All OOPSCC checks for 2011-2012 must be included in the private trials.
- 7) Other OOPSCC guidelines for public trials will apply.
- 8) The private trials will be inspected prior to maturity by a representative of OOPSCC, who will decide under what conditions they will be valid. The inspector will be reimbursed for his/her expenses plus a \$50.00 honorarium by the host company. The inspector may choose to have his/her payment made to OOPSCC and deposited to his/her account.
- 9) The company or institution agrees that data from all valid, inspected trials will be used in making comparisons for the purpose of supporting an entry for registration. Data plus analyses for each trial must be submitted to the coordinator after harvest. The company will choose which entries are to be carried forward and are responsible for compiling data in support of registration, which is to be submitted to the coordinator by Dec. 1 prior to the OOPSCC meeting at which the candidate line will be considered.

4.5 Inspection of Trials

Trials will be inspected by members of OOPSCC to ensure that they are in order. Inspection visits will be made by a representative of an institution other than that conducting the trial. Problems with individual tests should be reported in writing to the Secretary.

4.6 Valid Tests

Trials must attain a CV of $\leq 20\%$ to be considered valid. Replications of tests not representative of the trial may be eliminated at the discretion of OOPSCC.

4.7 Check Varieties

Tests will include currently registered winter canola cultivars to be used as checks. The check cultivar for 2011 / 12 will be **Kronos**. Special consideration will be given to lines that exhibit significant improvement in winter survival or blackleg resistance.

4.8 Data Collection, Analysis, and Distribution

Agronomic data will be collected as appropriate and will include winter survival, plant height, maturity, lodging, blackleg tolerance, other disease and insect problems, yield, and harvest moisture. Quality determinations will include 1000-seed weight, green and brown seed percent, oil content and protein content of the seed. These measurements will be made by the Department of Plant Agriculture, University of Guelph, on samples composited over replications within each test. Erucic acid may be measured on seed prior to planting at the discretion of OOPSCC. Glucosinolates will be measured for varieties to be supported for registration, using samples composited across replications.

Results will be sent to all Canadian individuals or Canadian organizations who have sponsored entries in the Ontario Canola Tests and to other interested parties upon request.

Yield tests will be conducted in 6 or 8-row plots with approximately 25 or 18 cm, respectively, between rows. Lengths of plots and harvesting methods will be left to the station personnel conducting the tests. However, a minimum of 2 border rows are suggested on each side of the test area; plot ends should be trimmed by a minimum of 0.5 meters. The preferred method of harvesting will be direct combining. Tests will have four replications.

Maturity will be defined as "50% of seeds non-green". Harvest dates will be recorded at each site, as well as swathing dates, if the crop is harvested in that manner.

4.9 Support for Registration

i) Number of Trials Required

An entry must be tested for at least two (2) years, with a minimum of four (4) valid tests during that period and at least two (2) valid tests in each year to be eligible for support for registration and recommendation by OOPSCC.

ii) Yield and Quality Standards

In order to be supported for registration, lines must meet canola standards.

Entries will be compared with the winter canola check cultivar listed above. In order to be supported for registration and/or recommendation by the Committee an entry must be equal to, or better than the appropriate check in yield, must have similar lodging resistance, and must be no more than 1.0% below the check in oil (whole seed basis) and no more than 1.5% below the check in oil plus protein content, where protein content is expressed as a percent of the oil free meal. It also must be no more than 5% below the check in % winter survival and must have a blackleg rating, based on a scale of 0 (none) to 4 (75 to 100% of plants severely affected by basal cankers), no higher than the check. An entry also must not have poor quality or lack of other disease resistance that could harm the industry.

In order to be supported for registration, an entry must have less than 0.5% erucic acid in the oil and less than 18 micromoles total glucosinolates per gram seed at 8.5 % moisture. This requirement makes it necessary that companies or institutions making entries have already determined that their entries are low in erucic acid and glucosinolate contents. Outcrossing may result in high values for erucic acid in other entries in the tests, if any entry is high in erucic acid content.

iii) Registration Options

Once an entry is supported by OOPSCC for registration, the sponsoring individual or organization may seek registration from the Variety Registration Office of the Canadian Food Inspection Agency. A sponsor may decline to proceed with registration on the basis of a lack of seed supplies.

Other Private Data

Data from other private trials will not be considered in support of registration.

4.10 Laboratory Testing

Samples from public and private trials will be analyzed by the Department of Plant Agriculture, University of Guelph, for 1000-seed weight, oil and protein content, and green and brown seed percent. Erucic acid and glucosinolate levels will be tested only on varieties to be supported for registration. Quality testing will be included in the fees paid for entries in public trials. For samples from private trials, the fee will be \$45 per sample (see Section 4.4 part 4).

4.11 Appeals Procedure

Should a dispute arise regarding the interpretation of the data by OOPSCC, the registration support decisions may be challenged by the sponsor. An Appeal Committee will be formed within 10 days of notification to the OOPSCC Secretary of the Appeal. Notice of Appeal must be received within 10 days of receipt of the decisions. The Appeal Committee will consist of:

- one individual appointed by OOPSCC
- one individual appointed by the plaintiff
- one individual acceptable to both parties.

The written decision of the Appeal Committee will be final. The losing party in the Appeal will pay the expenses of the 3rd individual (i.e. the individual acceptable to OOPSCC and the plaintiff).

4.12 Deletions Procedure

In the past, registered cultivars that showed declining performance relative to other recommended cultivars over years of testing were subject to deletion from the recommended list. When the performance of a variety fell below 95% of the yield of other currently recommended varieties, based on the previous 3 years' data, it was deleted from the recommended list.

At its January 2008 meeting, OOPSCC passed a motion to discontinue the practice of deleting canola varieties from the recommended lists based on yield.

4.13 Fees

The fee for the Ontario Winter Canola Tests is established at \$1,180 for each entry plus HST. Fees are payable to the Ontario Oil and Protein Seed Crop Committee: Canola in Canadian funds, within 30 days of the invoice date. Interest on overdue accounts will be assessed at a rate of 2% per month from the date payable.

For private tests the fees are \$50 per entry for entries to be tested in the second year or to be considered for support for registration, for handling data, plus \$45 per sample submitted for quality analyses. These fees are also subject to HST. Fees are payable to the Ontario Oil and Protein Seed Crop Committee: Canola in Canadian funds.

WINTER CANOLA ENTRY FORM
(Use for both public and private trials)

DUE AUGUST 12, 2011

Entered by (Canadian Sponsor):

NAME (Contact Person and Company):

ADDRESS:

POSTAL CODE:

PHONE #:

FAX #:

EMAIL:

NAME AND LOCATION OF BREEDING COMPANY:

Entry Name	Other Designation(s)	Erucic Acid (%)	Glucosinolate $\mu\text{mol/g}$	Hybrid? (Y/N)	Other traits ¹
1.					
2.					
3.					
4.					
5.					

¹e.g., RR, semidwarf, SU-tolerant

Note: You must indicate erucic acid and glucosinolate levels for entries submitted.

Return one copy to:
Dr. Hugh Earl
Dept. of Plant Agriculture: Crop Sci. Bldg.
University of Guelph
Guelph, Ontario N1G 2W1
hjearl@uoguelph.ca
fax: 519 763-8933

_____ entries in public trials @ \$1,180.00 per entry: _____

HST (13%) (HST # **12777 9965 RT001**) _____

TOTAL _____

LOCATIONS OF PRIVATE TRIALS:

Fees will be \$50 per entry for entries in private trials for handling data, plus \$45 per sample submitted for quality analyses. These fees are payable by **Oct. 1** of the year in which the private trial is harvested. This is also the deadline for submitting samples for quality analyses.