OPERATING PROCEDURES OF THE **ONTARIO PULSE CROP COMMITTEE** FOR THE ASSESSMENT OF CANDIDATE VARIETIES

Revision Date: Nov 2023 Affective: Feb 2024

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INTRODUCTION

This document outlines the pre-registration testing protocol and data evaluation process for the Ontario Pulse Crop Committee (OPCC), which is recognized as a Recommending Committee by the Variety Registration Office (VRO) of the Canadian Food Inspection Agency (CFIA). OPCC are the recognized recommending committee for dry edible beans, faba beans, lentils and dry field peas in Ontario. The pulse types that are regularly included in public Ontario field trials coordinated by OPCC are various market classes of dry edible beans (*Phaseolus vulgaris*) including white (a.k.a. navy or white pea), black, kidney, cranberry, small red, and pinto beans. Candidate varieties of these dry bean types are evaluated for merit and supported for registration according to the procedures outlined herein, which are reviewed annually by the OPCC.

1.1 LEGISLATION AND AUTHORITY

As required by the *Seeds Regulations* paragraph **65.1** (1) (e), each recommending committee shall function transparently and deal with varieties in a fair and consistent manner. The Seeds Act can be found at http://www.inspection.gc.ca/.

The Seeds Act is the legislative authority for the Seeds Regulations. In section 65.1 of the Seeds Regulations (Appendix A) there is a provision for the Minister of Agriculture and Agri-Food to approve crop-specific variety registration recommending committees. The purpose of each committee is to establish and administer protocols for testing varieties of crop kinds listed in Parts I and II of Schedule III of the Seeds Regulations to determine the merit of varieties and, subsequently, to make registration recommendations to the Registrar, VRO. In practice, the Minister's authority to approve this committee is delegated to the Registrar (currently the National Manager, Seed Section, CFIA). These committees are integral to the variety registration system and serve to provide expertise and guidance to the Registrar. See Appendix A: Authority of Recommending Committee.

The VRO reviews and approves each committee's operating procedures document annually. Any changes to this document require approval by the committee members and subsequent approval by the VRO. The VRO issues an annual approval letter on behalf of the Minister, signed by the Registrar, to each variety recommending committee in Canada.

The VRO provides guidance on the requirements of *Seeds Act* and *Seeds Regulations* to all the recommending committees as required. It also ensures that the committees are functioning transparently and that varieties are dealt with in a fair and consistent manner, in accordance with the approved operating procedures. The committees must provide their expertise and advice to the VRO, and this is considered by the Registrar in rendering a decision on variety registrations.

2.0 ONTARIO PULSE CROP COMMITTEE

2.1 MANDATE AND ROLE

The key mandate of the OPCC is:

• To establish the criteria for evaluating the merit of candidate varieties

- To establish test protocols for generating trial data on candidate variety merit and outline these protocols in a manual, named the Variety Trial Methods and Testing Procedures
- To evaluate data collected from trials to determine if a candidate variety has merit, as a part of the eligibility requirements for variety registration (see Appendix B: Eligibility Requirements for Variety Registration)

Additional objectives include:

- To act as a forum for exchange of information relevant to the development of improved varieties of pulses for Ontario and eastern Canada.
- As a crop specific stakeholder group, to provide expert input to federal and provincial agencies regarding proposed or existing legislation and regulations governing pulse breeding and variety production.

The OPCC may recommend cancellation of a variety for cause, by the Registrar (CFIA), based on eligibility requirements in Appendix B. This course would be followed only if a variety appears to have the potential to cause serious damage to the industry. The final decision rests with the Registrar. Historically this is an extremely rare event.

2.2 MEMBERSHIP

The Chair, Secretary and Treasurer of OPCC are elected by voting members at the Annual Meeting. They serve three-year terms. They must be members of the organizations which comprise the membership of the OPCC.

Voting members form the Main Committee of the OPCC. Voting positions are held by key public and private sector organizations that are part of the pulse value chain in Ontario. Specific representatives are elected into their roles by their sector organizations and serve three-year terms. Voting representatives may be replaced prior to the expiry of their current term. In the event a designated representative cannot attend a meeting, the sector organization may name an alternate. The executive, voting member organizations and their current representatives are listed in Appendix C: OPCC Executive and Voting Members.

Voting member organizations of the OPCC Main Committee include:

- Agriculture and Agri-Food Canada (AAFC) Dry Bean Breeding
- Agriculture and Agri-Food Canada (AAFC) Dry Bean Pathology
- University of Guelph (U of G) Dry Bean Agronomy
- University of Guelph (U of G)

 Dry Bean Breeding
- Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) Edible Bean Specialist
- Ontario Seed Growers' Association (OSGA)
- Canadian Seed Growers' Association (CSGA)
- Ontario Bean Growers (OBG)
- Ontario Agri-Business Association (OABA)
- Seeds Canada
- Food Processor Sector

- Ontario Certified Crop Advisor Association (OCCAA)
- Ontario Soils and Crop Improvement Association (OSCIA)

Non-voting advisors form the Variety Sub-Committee of the OPCC. The Variety Sub-Committee is composed of representatives of the public and private sector organizations that are part of the pulse value chain in Ontario, including the CFIA and the organizations listed above. The Variety Committee review data collected from performance, yield, quality and cooking testing and make recommendations to the Main Committee regarding their evaluations of candidate varieties.

The Main Committee vote on approval of candidate varieties to be recommended for registration by CFIA.

Anyone wishing to be considered for non-voting membership can apply directly with the committee during the membership business section of a meeting. They can contact the Chair at any time for information and meeting dates. Members from all aspects of the pulse value change are welcomed for their insight on their area of expertise.

2.3 MEETINGS

The OPCC meets twice per year. The Annual Meeting is held in February, and the Trial Tour & Summer Meeting is held in August. Additional ad-hoc meetings can be called when there is urgent business that must be discussed outside of the above-mentioned times. Additional meetings may be virtual or inperson to accommodate short notice and the wide geography of members. The Chair or Secretary can be contacted to obtain meeting dates or be added to the email list for upcoming meetings.

The Variety Sub-committee and the Main Committee convene at the Annual Meeting. Data from trials is discussed and decisions are made with regards to supporting candidate varieties for registration. Testing procedures are reviewed, and reports are received from the member organizations. A research discussion is usually hosted in conjunction with the Annual Meeting to review recent research results and discuss research direction and emerging issues.

The Trial Tour & Summer Meeting involves the OPCC and candidate variety sponsors inspecting field trials. Non-OPCC members including interested farmers, industry and extension personnel are welcome to attend the Trial Tour & Summer Meeting. In addition to the tour, seasonal details, research findings and research priorities are discussed. Member organizations use the meeting as a way of sharing information about dry bean production and research which can be acted upon within their individual research and communication programs.

Ad-hoc sub-committees may be formed to discuss specific topics at anytime. Results of the discussions and any suggested action items will be presented to, and voted on by, the main committee.

2.4 VOTING PROCEDURES AND OPTIONS FOR MAIN AND SUB-COMMITTEE

A minimum of fifty percent of the voting committee membership (Section 2.2) must be in attendance to constitute a quorum. Only designated voting committee members may make a motion or vote. The

Secretary and Treasurer vote as part of the committee. The Chair does not vote except to create or break a tie. Motions are carried by a majority vote, where over 50 percent of voting members vote in the affirmative. Voting is conducted by a show of hands.

There are only three possible voting options:

- 1) To **support** (the motion),
- 2) To object to (the motion) or, rarely,
- 3) To abstain from voting.

Abstaining is only appropriate if there is a real or perceived conflict of interest (see Part 2.5). A lack of suitable data is not a valid reason for abstaining from voting on variety recommendations.

2.5 CONFLICT OF INTEREST WITH RESPECT TO VOTING

In general, a conflict of interest may arise if the impartiality of a member could be undermined due to a conflict between their self or professional interest and the public interest.

Conflict of interest is minimized by instituting automated procedures for variety evaluation in the form of pre-set, clearly written and specific merit criteria that, if met in its entirety will result in the variety being added to a list of similarly qualified varieties to be recommended automatically by a single procedural vote of the committee.

There is the potential for a conflict of interest to occur if a voting member derives direct benefit from the outcome of the vote and determines that he or she is in a position of undue influence regarding the variety. The choice of abstaining from the vote is left up to the individual voting member and in accordance with the code of ethics of the committee. It is recognized that a voting member may derive benefit from the outcome of a vote but that he or she can act impartially and professionally on behalf of their constituency when it comes to voting. It is also recognized that having a committee of crop-sector experts voting on variety recommendations means that voting members will occasionally have a vested interest in one or more of the varieties coming up for the vote. This is a feature of all variety registration recommending committees in Canada where voting on an individual variety occurs.

If a variety proponent believes that a conflict of interest is responsible for their variety not being recommended by the committee, they can file an appeal with the committee and present their case (see Part 3.6).

2.6 SETTING ASIDE THE RULES

The OPCC may choose to set aside the existing rules regarding merit criteria for a candidate variety if there are overall benefits to the industry for the variety being considered.

An applicant can request that the committee set aside the rules to consider the merit of a variety that otherwise has failed to meet the standard in one or more required characteristics. The process for setting aside the rules is as follows:

1. A majority vote is held to determine the committee's approval to set aside the rules.

- 2. The applicant presents the attributes of the candidate variety and why the committee should consider supporting it for registration. For example, new and valuable technology has been introduced in an otherwise partially deficient variety and the committee is being asked to decide on the new, valuable attributes not yet captured in the definition of merit for that crop kind. As another example, if the minimum data set or minimum merit performance are lacking due to extenuating circumstances, the committee may choose to take this into account.
- 3. The committee votes as to whether they support recommending the variety for registration.

3.0 REGISTRATION

As per Part 1.0 and 1.1, for candidate varieties to be registered with the VRO they must be supported for registration by the OPCC. The OPCC requires candidate varieties to be entered in field trials (see Part 4) for specific performance and quality data to be collected and evaluated against the merit standards set by the OPCC. After a candidate variety is supported by the OPCC, the VRO is informed via a letter from the secretary. It is the responsibility of the sponsor to seek registration with the VRO.

3.1 MERIT CRITERIA

Candidate varieties will be considered to have merit and eligible for support for registration if they meet the following criteria:

- 1) Yield
- (a) Entered in public or OPCC-approved private field trials in Ontario for a minimum of two consecutive years. Data used in supporting a variety must come from valid tests for two consecutive years of testing. See Part 4.11 for more information on valid tests.
- (b) Data from a minimum number of valid tests per year has been collected and presented.
 - i. White (navy) beans: five valid tests required, with a minimum of two valid tests per year.
 - ii. Cranberry and kidney beans: four valid tests required, with a minimum of two valid tests per year.
 - iii. Minor market classes: two valid tests required, with a minimum of one valid test per year.
- (c) Weighted average yield in valid trials is equal to or greater than the weighted average yield of the approved check variety(s) with an average maturity that is similar to the candidate line. Typically, all check variety with a maturity within 3 days of the candidate line are used to determine the weighted average yield.

2) Quality

Cooking quality is acceptable based on AAFC Lethbridge laboratory assessments as described in Appendix J or is stated to be acceptable in a letter of support from a commercial canning company.

3.2 REGISTRATION REQUIREMENTS AND PROCEDURES

Data collected on candidate varieties that have been tested for two years is distributed to OPCC members in advance of the Annual Meeting and reviewed by the Variety Committee at the Annual Meeting. The testing results are discussed for each merit criteria.

The OPCC typically discuss additional details of the candidate variety and its value to producers and the industry, including: parent varieties, plant architecture, suitability for direct harvest, days to maturity, seed size, seed coat colour/markings, seed coat colour retention after cooking, and reaction to diseases. Many of these attributes are important for commercial acceptance.

While the specific disease reaction is not a merit criterion, data on candidate variety reaction to disease should be provided to OPCC prior to the Annual Meeting at which the candidate variety will be reviewed for support.

New varieties of dry beans should have resistance to:

- common bacterial blight (CBB), for white beans
- anthracnose (races 17, 23 and 73)
- bean common mosaic virus (BCMV, races 1 and 15)

Varieties that fail to meet the merit criteria are removed from consideration, unless the applicant requests OPCC to set aside the rules (see Part 2.6) or the applicant withdraws the candidate variety from consideration for support. Varieties that fail to meet the merit criteria after two years of testing may be deferred and entered for one additional year of testing.

For varieties that meet all the merit criteria a vote is held on a motion to recommend the candidate varieties for registration, either as a group or individually.

3.3 REGISTRATION CATEGORIES

There are three primary registration options to consider when recommending a variety, including:

- a) National registration
- b) Interim registration
- c) Contract registration

See Appendix E: Registration Categories for more information.

Varieties deemed to have merit are normally supported for full, unconditional national registration. Under special circumstances or where restrictions are deemed warranted, a variety may be supported for interim or contract registration.

3.4 DURATION OF REGISTRATION SUPPORT

OPCC support for registration is valid for two years from the date of the Annual Meeting at which support was granted. The OPCC grants the OPCC Secretary the discretion to recommend a variety for an

additional year without an additional OPCC vote. This additional communication from OPCC would need to be included in applications for variety registration, if applicable.

3.5 DATA SUBMISSION AND CONFIDENTIALITY

The sponsors of varieties supported for registration can submit OPCC data to the Variety Registration Office, Canadian Food Inspection Agency, in support of candidate varieties. Variety merit assessment test data from public trials or generated via a cooperative test system is to be treated as confidential data of the variety developer to be used for the sole purpose of determining merit of the variety and making a recommendation to the VRO. Its use is restricted to this function only. Any other use requires that express permission is obtained from the variety developer prior to registration. If the candidate variety is recommended and if it becomes registered, the test data that accompanies the registration will become public domain. Data on check varieties or registered varieties in any of the registration trials will be considered public domain.

3.6 APPEALS

In the event that a breeder or sponsor disagrees with the interpretation of the data by the OPCC, they can submit an appeal to the OPCC Executive within 30 days of the Annual Meeting. An opportunity will be given for the breeder or sponsor to restate the case for the variety and provide any additional information.

Appeals may be based on:

- 1. An error of consequence was made in the data that was submitted.
- 2. Additional information is available.
- 3. The accepted procedure in reviewing the data was not followed.
- 4. There are any other justifications for an appeal as accepted by OPCC.

The breeder or sponsor will receive the written decision of the OPCC on their appeal within 10 days of the decision being made.

In the event that a stakeholder identifies a situation where the OPCC has failed to live up to the spirit or the letter of the Operating Procedures, they have recourse to present the issue with a detailed explanation to the Chief, VRO or the Registrar. The VRO has oversight in this area and the Registrar with delegated authority from the Minister of Agriculture and Agri-Food will address any shortcomings, oversight or failure to act in accordance with the Operating Procedures directly with the OPCC. The purpose will be to bring the committee into compliance as soon as possible and to correct any wrongs that may have been committed.

One of the roles of the VRO is to monitor OPCC meetings and avoid this type of situation from the beginning. If the VRO observes actions or governance out of compliance with the letter and spirit of the Operating Procedures, the office will work directly with the committee to find a solution to bring the committee back into compliance in a timely manner.

4.0 TESTING OF CANDIDATE VARIETIES

Data used in evaluating candidate varieties towards approval for registration must be collected from public or private field trials and submitted to the OPCC. The trial management and data collection methods must follow OPCC approved standard procedures (see Appendix J: Variety Trial Methods and Testing Procedures), which are reviewed annually. Failure to comply with OPCC procedures may result in data being excluded from consideration for support for registration. The OPCC coordinate public trials in which sponsors can submit their candidate varieties, as described in Part 4.1 - 4.8. Public trials are conducted annually for market classes of *Phaseolus vulgaris* including white beans, cranberry and kidney beans and the minor market class category. Information on private trials and foreign data (e.g. data from regions outside Ontario) are described in Parts 4.9 and 4.10, respectively.

4.1 ENTRY INTO PUBLIC TRIALS

A maximum of 5 entries per sponsoring company or institution will be accepted in any one year in each of the three testing groups (white, cranberry & kidney beans, and minor market class beans). Sponsors must complete the white bean entry form (Appendix F) and/or the cranberry, kidney and minor market class entry form (Appendix G).. Descriptive information about the variety must be included on the entry form, including bean type, relative maturity, 100 seed weight and disease reaction. Any "special or unusual" characteristic that would have a bearing on testing procedures should be reported. The testing system will be adapted, wherever feasible, to accommodate "special" attributes. The form must be sent by **April 15**th to:

Ms. Emily Morneau AAFC-Harrow RDC 2585 County Rd 20, Harrow ON NOR 1G0

Phone: 519-325-8279 (Emily), Email Emily.Morneau@agr.gc.ca

If a variety is derived from a plant with a novel trait (PNT), documentation must accompany the entry forms. The sponsor must confirm that food, feed and environmental safety approvals are in place and that the PNT has "unconfined release status" or the equivalent (e.g., an exemption letter from the CFIA Plant Biosafety Office). The committee cannot refuse entries into the system for which the necessary signoffs are in place (e.g. cannot refuse entry based on a lack of major foreign market approvals).

No screening trial data is currently required prior to entry into the OPCC public trials. Organizations that enter varieties into the trials must be the breeder/owner or have written permission from the breeder/owner and must have marketing rights in Canada.

4.2 ENTRY FEES FOR PUBLIC TRIALS

The entry fees for each variety are as follows:

• white beans - \$1150

- cranberry and kidney beans \$950
- minor market class beans \$400

Fees are payable to the Ontario Pulse Crop Committee in Canadian funds by cheque only. Payment must be submitted to the treasurer by **April 15** in the year of testing. Please include a copy of the entry form(s) with the payment.

OPCC Treasurer:

Paul Cornwell Hensall District Co-op 1 Davidson Drive, Hensall ON NOM 1X0

Phone: 519-262-3002 ext 317

FAX: 519-262-2317

Email: pcornwell@hdc.on.ca

Fees for tests deemed invalid because of mismanagement on the part of the site cooperator will be returned. If it is the opinion of OPCC that factors beyond the control of the site cooperator resulted in a test being invalid, no fees will be refunded.

4.3 SEED FOR PUBLIC TRIALS

For white beans, nineteen thousand (19,000) viable seeds of each entry are required for planting at trial sites. For cranberry, kidney and minor market class beans, nine thousand (9,000) viable seeds are required for planting at trial sites.

Seed for each candidate variety must be sent by **April 15th**, along with a copy of the entry form, to:

Ms. Lyndsay Schram

Department of Plant Agriculture, Crop Science Building University of Guelph Guelph ON N1G 2W1

Phone: 519-824-4120 ext. 58339 Email: lschram@uoguelph.ca

Seed MUST be sent **untreated**. The Coordinator will treat all received seed with Cruiser Maxx Bean plus Dynasty. If the seed is received treated with other products, it will be retreated with Cruiser Maxx Bean plus Dynasty. If the seed cannot be treated by the Coordinator prior to shipping to site cooperators, the responsibility to treat the seed prior to planting rests with the site cooperator. Under no circumstances will untreated seed be planted in OPCC public trials.

A germination rate of 85% will be assumed, unless otherwise stated by the seed supplier. The seeding rate will be adjusted to simulate a seed lot with a minimum of 85% germination if requested by the seed supplier. The onus is on the seed supplier to submit seed with an adequate minimum germination. It is strongly recommended that the seed supplier perform a standardized warm germination test on the seed using the seed treatment Cruiser Maxx Bean plus Dynasty, prior to submitting the seed to the Trial

Coordinator. No adjustments will be made to trials to account for poor germination or poor seedling vigour due to a reaction between an entry and the seed treatment.

The committee encourages the use of disease-free, western US grown seed from Idaho or other locations west of the Great Continental Divide. The use of disease-free seed protects the trials from the devastating effects of common bacterial blight and other problematic diseases.

4.4 SECURITY OF ENTRIES

It is understood that breeding lines and non-released varieties received from private or public sector plant breeders for variety registration purposes are proprietary property and should be handled with this in mind. Under no circumstances will seed submitted for these trials be redistributed in any manner other than for the purpose of conducting registration trials and will not be used without express permission by the breeder or Canadian breeder agent.

4.5 PUBLIC TRIAL LOCATIONS

Public trial locations and the respective site cooperators who manage them are listed in Appendix H. Trials are inspected by OPCC and sponsors during the Trial Tour & Summer Meeting (see Part 2.3). Interested industry and extension personnel are welcome to attend this inspection tour.

4.6 CHECK VARIETIES

Check varieties designated by OPCC, to which candidate varieties must be compared, are listed in Appendix I. Checks must be registered, eligible for production in Ontario, and exhibit excellent performance. The list of checks includes varieties that cover the full range of maturities available for and appropriate to each area of production. The checks designated in the year that a candidate is first entered into the public trials will be used in making decisions regarding that candidate for all years of testing. The list of designated check varieties is reviewed annually during the Annual Meeting and revised as needed, keeping in mind the OPCC goal to encourage continuous improvement of variety performance. OPCC works in coordination with the sponsors of the check varieties to obtain seed for the trials.

4.7 AGRONOMIC METHODS AND DATA COLLECTION

The agronomic methods, trial design and data collection details that apply to all public and private trials are described in the document "OPCC Variety Trial Methods and Testing Procedures" (Appendix J). Agronomic methods generally follow the recommendations in OMAFRA Publication 811, Agronomy Guide for Field Crops.

All relevant agronomic data will be collected, including but not limited to: plant type (e.g. bush, short vine), days to maturity, harvest moisture, seed yield adjusted to 18% moisture, 100 seed weight, general (visual) seed quality, reaction to diseases (CBB, anthracnose and BCMV) and other pest problems as appropriate. Cooking quality on harvested beans will be evaluated by AAFC Lethbridge.

4.8 PRIVATE TRIALS

Companies or breeders may use data from private trials for 100% of the agronomic testing toward support for registration, if the trials are located within Ontario. Cooking quality testing on harvested beans by AAFC Lethbridge is a requirement and can be coordinated with the Cranberry and Kidney Bean Coordinators (named in Part 4.1) on a cost recovery basis. A letter of support from an industry canner or processor is also acceptable. For additional information on private trials conducted in regions outside of Ontario, see Part 4.10.

Private trial coordinators must inform the OPCC Chair or Secretary of their intent to run trials by **January 31st** of the testing year. The merit criteria outlined in Part 3.1 should be considered when planning private trials and collecting all of the data required to register a variety in Ontario. Private trial management and data collection methods must follow OPCC approved standard procedures (Appendix J), which are reviewed annually. Coordinators of private trials should work in cooperation with OPCC to ensure their trials and data can be considered valid, including following the deadlines set forth in Appendix J. Failure to comply with OPCC procedures may result in data being excluded from consideration for support for registration in Ontario.

Other requirements and instructions specific to private trials are as follows:

- approved check varieties must be included in the trials
- More than one company may have official entries in a private trial
- Trials must not be irrigated
- OPCC must be provided an opportunity to inspect trials and they must be deemed visually
 acceptable. Private trial coordinators must contact the OPCC Chair or Secretary by July 15 to
 arrange for inspection. A \$50 per site fee may be charged for inspection. An OPCC member will
 provide an official report as to the acceptability or deficiencies of the trials
- See Part 4.11 for details on submission of data from all sites deemed visually acceptable. An \$80 per site fee may be charged for data coordination and evaluation.

4.19 FOREIGN DATA

Foreign data refers to data submitted to OPCC that was collected from trials conducted **outside of Ontario**. OPCC will only accept foreign data collected from trials in Canada or the United States and have the right to refuse data collected outside of Ontario.

OPCC will not support candidate varieties for full National Registration based entirely on foreign data. Organizations wishing to use only foreign data for variety registration can only gain Interim Regional (Ontario) Support for Registration from the OPCC.

OPCC will consider 100% foreign data in support for registration proposals provided:

- 1) The data was generated from trials in geographical regions relevant to Ontario
- 2) The methods by which the trials were conducted are clear and meet the OPCC standards
- 3) Check cultivars are relevant to Ontario.

Following Interim Registration, candidate varieties MUST be entered into OPCC registration trials or officially approved Ontario-based private trials (Part 4.8 Private trials) for a minimum of one year of testing to be considered for full National Registration.

OPCC encourages sponsors to source their foreign data from public institutions. Foreign data must be collected from trials that adhere to the requirements and procedures outlined in Part 4.9 and Appendix J, regardless of whether the trial was conducted by a public or private entity. This includes following all deadlines set forth in Appendix J. Furthermore, foreign data will be subject to the requirements and details outlined in Parts 4.11. In the event that a requirement is not met by the foreign data, the sponsor may request to set aside the rules (Part 2.6).

4.10 SUBMISSION AND ANALYSIS OF DATA

Submission of data is outlined in Appendix J: Variety Trial Methods and Testing Procedures. Raw data from OPCC public trials is due to Trial Coordinators by **November 15** of the testing year. Raw data from private trials, including foreign data, is due to the Trial Coordinators by **December 31** of the testing year.

The trial coordinator will analyze and summarize the data, perform two year mean comparisons to the checks as appropriate, and will present the comparisons to the OPCC. Two-year registration summaries are distributed by the data coordinator to the Variety Committee and candidate sponsors or breeders in advance of the Annual Meeting in February.

The OPCC does not guarantee that any test will be considered valid for registration purposes. Trials are valid if deemed visually acceptable by the committee, have a minimum of three replications analyzed, and if the coefficient of variation for yield is 15 % or less for white beans and 18% or less for cranberry, kidney and minor market class beans. Factors beyond the control of the OPCC and the cooperator may significantly influence the quality of trials.

APPENDIX A: Authority of Recommending Committee

Authority provided under section 65.1 in the Seeds Regulations

- **65.1** (1) The Minister shall approve, for Canada or a region of Canada, a committee to establish and administer protocols for testing the varieties of a species, kind or type of crop listed in Part I of Schedule III, to determine the merit of the varieties and to make recommendations respecting their registration if
 - (a) the members of the committee have the knowledge and expertise required to establish and administer testing protocols for varieties of that species, kind or type of crop;
 - (b) the members of the committee have the knowledge and expertise required to determine the merit of the varieties of that species, kind or type of crop;
 - (c) the testing protocols established by the committee are appropriate for that species, kind or type of crop, are practical and are based on scientific principles;
 - (d) the procedures established by the committee for determining the merit of varieties of that species, kind or type of crop are appropriate for that purpose and are based on scientific principles;
 - (e) the operating procedures established by the committee will ensure that its functioning is transparent and that varieties are dealt with in a fair and consistent manner; and
 - (f) no other committee is approved as a recommending committee for that species, kind or type of crop for Canada or the region.
- (2) The Minister shall approve, for Canada or a region of Canada, a committee to establish and administer protocols for testing the varieties of a species, kind or type of crop listed in Part II of Schedule III and to make recommendations respecting their registration if
 - (a) the members of the committee have the knowledge and expertise required to establish and administer testing protocols for varieties of that species, kind or type of crop;
 - (b) the testing protocols established by the committee are appropriate for that species, kind or type of crop, are practical and are based on scientific principles;
 - (c) the operating procedures established by the committee will ensure that its functioning is transparent and that varieties are dealt with in a fair and consistent manner; and
 - (d) no other committee is approved as a recommending committee for that species, kind or type of crop for Canada or the region.
- (3) In carrying out its functions, a recommending committee must apply the testing protocols it has established, act in accordance with its operating procedures and, in the case of a committee approved under subsection (1), apply the procedures it has established to determine the merit of varieties.
- (4) For the purposes of subsections 67(1) and 67.1(1), the recommendation of a recommending committee must be based on the following:
 - (a) in the case of a species, kind or type of crop that is listed in Part I of Schedule III, the results of testing the variety in accordance with the relevant testing protocols and a determination of whether the variety has merit; and
 - (b) in the case of a species, kind or type of crop that is listed in Part II of Schedule III, the results of testing the variety in accordance with the relevant testing protocols.

SOR/2009-186, s. 2.

APPENDIX B: Eligibility for Variety Registration

- **67.1** (1) A variety of a species, kind or type of crop that is listed in Part I of Schedule III is eligible for registration if
 - (a) the variety has merit;
 - (b) the variety has been tested in accordance with the testing protocols of a recommending committee;
 - (c) the recommending committee has made a recommendation respecting registration of the variety;
 - (d) the variety or its progeny is not detrimental to human or animal health and safety or the environment when grown and used as intended;
 - (e) the representative reference sample of the variety does not contain off-types or impurities in excess of the Association's standards for varietal purity;
 - (f) the variety meets the standards for varietal purity established by the Association or these Regulations for a variety of that species, kind or type;
 - (g) the variety is distinguishable from all other varieties that were or currently are registered in Canada;
 - (h) the variety name is not a registered trademark in respect of the variety;
 - (i) the variety name is not likely to mislead a purchaser with respect to the composition, genetic origin or utility of the variety;
 - (j) the variety name is not likely to be confused with the name of a variety that was or currently is registered;
 - (k) the variety name is not likely to offend the public;
 - (*I*) no false statement or falsified document and no misleading or incorrect information have been submitted in support of the application for registration; and
 - (m) the information provided to the Registrar is sufficient to enable the variety to be evaluated.
 - (2) A variety of a species, kind or type of crop that is listed in Part II of Schedule III is eligible for registration if the requirements for eligibility set out in paragraphs (1) (b) to (m) are met.
 - (3) A variety of a species, kind or type of crop that is listed in Part III of Schedule III is eligible for registration if the requirements for eligibility set out in paragraphs (1) (d) to (m) are met.

APPENDIX C: OPCC Executive and Voting Members

CHAIR:

Meghan Moran, Edible Bean Specialist

OMAFRA

63 Lorne Ave E, Suite 2B Stratford ON N5A 6S4 Phone: 519-546-1725

Email: meghan.moran@ontario.ca

SECRETARY:

Emily Morneau
AAFC-Harrow RDC
2585 County Rd 20,
Harrow ON NOR 1G0
Phone: 519-325-8279

Email: emily.morneau@agr.gc.ca

TREASURER:

Paul Cornwell Hensall District Co-op 1 Davidson Drive Hensall ON NOM 1X0

Phone: 519-262-3002 ext 317

FAX: 519-262-2317

Email: pcornwell@hdc.on.ca

VOTING MEMBERS:

	Organization	Representative	Renewal Date
1	AAFC Harrow – Breeding	Dr. Jamie Larsen - Research Scientist	Feb 2025
2	AAFC Harrow – Pathology	Dr. Owen Wally - Research Scientist	Feb 2024
3	U of Guelph– Agronomy	Chris Gillard - Associate Professor	Feb 2024
4	U of Guelph– Breeding	Dr. K. Peter Pauls - Professor	Feb 2024
5	OMAFRA – Edible Bean Specialist	Meghan Moran	Feb 2024
6	OSGA	Rueben Stone	Feb 2024
7	CSGA	Carl Bolton	Feb 2024
8	Ontario Bean Growers	Tyler Vollmershausen	Feb 2024
9	Ontario Bean Growers	Jamie Payton	Feb 2024
10	OABA	Paul Cornwell – Hensall District Coop	Feb 2024
11	Seeds Canada	Willie Vanderpol - SeCan	Feb 2024
12	Food Processor	Steve Innes - Bonduelle	Feb 2026
13	OCCAA (vacant)		Feb 2024
14	OSCIA	Phil Oegema	Feb 2025

Seed Coordinator for public trials:

Ms. Lyndsay Schram

Department of Plant Agriculture

Crop Science Building University of Guelph Guelph ON N1G 2W1

Phone: 519-824-4120 ext. 58339 Email: lschram@uoguelph.ca

Entry Form Coordinator for public trials:

Dr. Jamie Larsen & Emily Morneau

AAFC-Harrow RDC 2585 County Rd 20, Harrow ON NOR 1G0 519-325-8279 (Emily) 226-935-8267 (Jamie) Jamie.Larsen@agr.gc.ca Emily.Morneau@agr.gc.ca

APPENDIX D: Code of Ethics

The OPCC voting and non-voting members will exercise respectful candor when participating in meetings. The OPCC will be an inclusive space where all members feel free to participate.

Regarding seed distributed or received for registration trial purposes, the OPCC will act in accordance with the Code of Ethics described below.

- 1. The originating breeder, institution or company has certain rights to the germplasm. It is their proprietary intellectual property. These rights remain with the originator and are not waived with the distribution of seeds or plant material. A seed recipient is defined as an individual who directly contributes data for the trial in which the germplasm is being evaluated.
- 2. The recipient of seeds or plant material shall make no secondary distribution of the germplasm without the permission of the owner/breeder.
- 3. Seed of a line provided for trials and any plant part derived from it are provided solely for the purpose of variety registration eligibility assessment and will not be used in any way for any purpose other than this.

APPENDIX E: Registration Categories

The committee has three primary registration options to consider when recommending a variety:

- (1) National registration
- (2) <u>Interim registration</u>
- (3) Contract registration

Based on the result of the trials, the committee will provide recommendations to the CFIA as follows:

- To 'support' or 'do not support' candidate varieties for registration
- To 'object' or 'do not object': Some varieties may be desirable in one region but could cause problems in other regions. In this case, the VRO would consult recommending committees other than the committee that supported the variety to see if they object or do not object to this variety being recommended. An objection by the committee can only be based on the candidate variety being assessed as a potential harm to a given crop sector in a given region of Canada (e.g., due to disease susceptibility or to inferior quality characteristics). As a result, a Restricted registration may be imposed by VRO.

(1) National registration

Candidate varieties which have merit, as determined by the committee, will be recommended for registration. By default, all varieties receive National registration by receiving support from any recommending committee.. After the committee's recommendation and during the registration process, other regional committees that exist for that same crop kind may be contacted to see if they have any objection to the National registration of that variety. Subject to providing a rationale, they may object on the basis of disease or quality aspects that may threaten crop production in their region, in which case the Registrar may apply a regional restriction on this National registration, omitting that committee's region of Canada.

(2) Interim registration

The committee may consider a recommendation for Interim registration in situations where, after a minimum of one year of testing, the data indicates that a candidate may be eligible for registration. This provision is intended to be used in situations such as:

- (a) where a variety proponent brings forward an innovative variety with a valuable characteristic(s) not necessarily captured in the merit assessment, viewed as being of benefit to the crop sector and worth bringing to the market quickly. It may be slightly deficient in one or more merit characteristics, but its attributes outweigh its deficits. Normally such a variety would be considered for registration and concurrent (continued) testing,
- (b) where a variety demonstrates outstanding merit after the one year of testing the committee has the option, if they deem it appropriate, of considering it for interim registration and further, concurrent testing.
- (c) where a variety is brought forward that is deficient in one or more merit criteria, but the proponent has evidence (presented to the committee) of commercial interest in an identity preserved (IP) production program between the developer and an end user (this can be a tool to allow a variety to establish a niche market)

Interim registrations are typically recommended for three years initially and would normally involve new data being brought back to the committee and a request made for National registration with a full set of data to the committee. The registrant has the option of making a request to the committee for an extension of Interim registration for a total of no more than five years, by submitting the full data package with subsequent data collected since registration. Interim registrations expire after their designated term.

Reference: 68. (2) (a), Seed Regulations

- (2) The Registrar shall make the registration of a variety subject to the following terms and conditions, where applicable:
- (a) in the case of a variety of a species, kind or type of crop that is listed in Part I or II of Schedule III, if a minimum of one year of testing demonstrates that the variety may be eligible for registration but that further testing is required before a final decision can be rendered, the registration shall be limited to an initial period

of not more than three years that shall be extended on written request by the applicant if eligibility for registration continues to be demonstrated, but under no circumstances shall the total duration of the registration exceed five years;

(3) Contract registration

Contract registration is available for candidate varieties where biochemical or biophysical characteristics distinguish them from the majority of registered varieties of the same kind or species. Further, it must be shown that these characteristics may cause harm toward varieties registered for traditional commodity markets. To qualify for Contract registration, the owner/sponsor of the variety must demonstrate the possibility of industry harm if granted an unrestricted registration. Contract registration is only a possibility for varieties that may cause harm based on scientific assessment of agronomic performance, disease reaction or end-use quality, not based on socio-economic factors. The determination of whether a variety has the potential to cause harm is a scientific process where it is determined whether the variety has the potential to have an adverse effect on the identity of other registered varieties of that crop kind or if the variety or progeny thereof may be detrimental to human or animal health and safety of the environment. As a general rule, contract registration is not to be used as a substitute for traditional forms of registration (National or Interim) in situations where the committee has objected to the registration of the candidate variety based on deficiency in merit. However, the committee may suggest that the candidate be considered for Contract registration where there is rationale to do so.

Reference: **68.** (2) (c) (i to iv) of the *Seed Regulations*

- (c) where the biochemical or biophysical characteristics of a variety distinguish it from the majority of registered varieties of the same kind or species and it may have an adverse effect on the identity of those registered varieties, the registrant shall
 - (i) establish and maintain a quality control system for the management of potentially adverse effects of the variety, including management responsibility, contract review, product identification and traceability, inspection, testing, control of nonconforming product, corrective and preventive actions, records and training of personnel,
 - (ii) describe the quality control system in a document and submit the document and any subsequent amendments to that document to the Registrar for review and approval,
 - (iii) implement the quality control system, and
 - (iv) agree in writing, for the purpose of verifying compliance with subparagraph (iii), to provide the Registrar with information relating to the distribution, use and disposition of any seed of the variety or any progeny thereof.

APPENDIX F: Entry Form for White Beans REGISTRATION TRIALS

Breeder Name:	Institution:
Official Canadian Sponsor (if different from above):	Phone & Email:

Entry #	Entry Name	Year Tested (1 st , 2 nd , 3 rd)	Days to Maturity	Plant Type ¹	Seed Size (g/100)	CBB Rating 0-5	BCN R or R1		thracnose R or S 7 R23 R73	(\$1150)
1										\$
2										\$
3										\$
4										\$
5										\$
Total										\$

¹Plant Type: 1 = determinate bush, 2a = indeterminate, short vine, 2b = indeterminate, long vine Registration Testing Locations: 6 sites including St. Thomas, Auburn, Woodstock, Elora, Winchester and Exeter, ON.

Provide 19,000 seeds for each candidate variety along with this form by April 15th.

Please see Appendix H for the checks your lines will be compared to.

APPENDIX G: Entry Form for Cranberry, Kidney and Minor Market Class Beans REGISTRATION TRIALS

Breeder Name <u>:</u>	Institution:
Official Canadian Sponsor (if different from above):	Phone & Email:

Entry #	Entry Name	Market Class	Year Tested (1 st , 2 nd , 3 rd)	Days to Maturity	Plant Type ¹	Seed Size (g/100)	BCN R o R1		thracnos R or S 7 R23 R7	Fees Large= \$950 Small= \$400
1										\$
2										\$
3										\$
4										\$
5										\$
Total										\$

¹Plant Type: 1 = determinate bush, 2a = indeterminate, short vine, 2b = indeterminate, long vine

Provide 9,000 seeds for each candidate variety along with this form by April 15th.

Complete a second form if there are greater than 5 entries. Please see Appendix H for the checks your lines will be compared to. Registration Testing Locations: 6 sites including St. Thomas, Auburn, Woodstock, Elora, Winchester and Exeter, ON.

APPENDIX H: Public Trial Locations

Location	Corn Heat Units	Site Cooperator	Market Classes
Elora	Elora 2800 University of Guelph - Breeding Program		White
			Cranberry & Kidney
Winchester	2800	University of Guelph – Winchester Station	White
			Minor Market Classes
Auburn	2850	University of Guelph- Ridgetown	White
Exeter	3050	University of Guelph- Ridgetown	White
			Cranberry & Kidney
			Minor Market Classes
Woodstock 3100 University of Guelph - Bree		University of Guelph - Breeding Program	White
			Cranberry & Kidney
St. Thomas	3250	AAFC Harrow RDC	White
			Cranberry & Kidney
			Minor Market Classes

Minor Market Classes generally includes black, small red and pinto.

APPENDIX I: Check Varieties

WHITE BEAN CHECK VARIETIES:

Agronomic Check Variety Name	3 rd , 2 nd , 1 st Year Status
AAC Shock	(321)
Bolt	(321)
OAC Thunder	(321)
T9905	(321)
Lighthouse	(321)
Rexeter	(321)
Rogue	(321)

Cooking Quality Check Variety Name	3 rd , 2 nd , 1 st Year Status
AAC Shock	(321)
Bolt	(321)
OAC Thunder	(321)
Lighthouse	(321)

CRANBERRY, KIDNEY AND MINOR MARKET CLASS BEAN CHECK VARIETIES:

Agronomic		3 rd , 2 nd ,
Check Variety	Market Class	1 st Year
Name		Status
Zorro	black	(321)
Vortex	black	(321)
Etna	cranberry	(321)
OAC Navabi	cranberry	(321)
Messina*	cranberry	(_21)
Red Hawk	dark red kidney	(321)
Dynasty	dark red kidney	(321)
Pink Panther	light red kidney	(321)
OAC Firebrand	light red kidney	(321)
Yeti	white kidney	(321)
Windbreaker	pinto	(321)
Vibrant	Slow darkening pinto	(_21)
Viper	small red	(1)
AAC Shock	Navy	(321)

Cooking Quality Check Variety Name	Market Class	3 rd , 2 nd , 1 st Year Status
Zorro	black	(321)
Vortex	black	(321)
Etna	cranberry	(321)
Red Hawk	dark red kidney	(321)
Dynasty	dark red kidney	(321)
Pink Panther	light red kidney	(321)
Yeti	white kidney	(321)
Windbreaker	pinto	(321)
Viper	small red	(1)

^{*}Messina entered as a marsh spot check for each trial location

APPENDIX J: Variety Trial Methods and Testing Procedures

Attached as separate document.