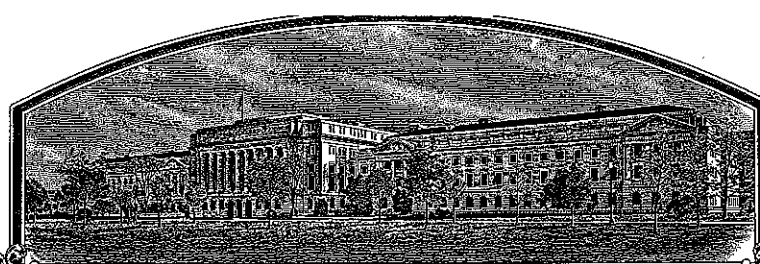


No.



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:
Crop Development Centre University of Saskatchewan

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLACEMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING USES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY SHALL BE IDENTIFIED BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE REQUIREMENTS OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321)

LENTIL

'CDC Viceroy'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this fifth day of March, in the year two thousand and seven.

Attest:

Belm Zeln

Commissioner
 Plant Variety Protection Office
 Agricultural Marketing Service

W. H. Johnson

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2428).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

1. NAME OF OWNER Crop Development Centre University of Saskatchewan		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME 1066E-4	3. VARIETY NAME CDC Viceroy
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 51 Campus Drive Saskatoon, SK S7N 5A8		5. TELEPHONE (include area code) (306) 966-8195	FOR OFFICIAL USE ONLY PVPO NUMBER 200500301 FILING DATE July 26, 2005
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) University		6. FAX (include area code) (306) 966-5015	
8. IF INCORPORATED, GIVE STATE OF INCORPORATION		9. DATE OF INCORPORATION	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Ronald B. Weik Quality Assured Seeds Inc. 418B McDonald St. Regina, SK. S4N 6E1		FILING AND EXAMINATION FEES: \$ 3652.00 DATE 7/26/2005 CERTIFICATION FEE: \$ 768.00 DATE 2/5/07	

11. TELEPHONE (include area code) (306) 791-0500	12. FAX (include area code) (306) 791-0555	13. E-MAIL rweik@qas-online.com
14. CROP KIND (Common Name) Lentils	15. FAMILY NAME (Botanical) Leguminosae	18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.
15. GENUS AND SPECIES NAME OF CROP Lens culinaris Medic	17. IS THE VARIETY A F.R.S.* GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input checked="" type="checkbox"/> YES (if "yes", answer items 21 and 22 below) <input type="checkbox"/> NO (if "no", go to item 23)
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)		21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$3,652), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER <i>F. A. Holm</i>	SIGNATURE OF OWNER
NAME (Please print or type) Frederick A. Holm	NAME (Please print or type)
CAPACITY OR TITLE Director, Crop Development Centre Univ. of Saskatchewan	DATE 14 July/05

(See reverse for instructions and information collection burden statement)

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 604-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvplindex.htm>

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5652 <http://www.ams.usda.gov/lsg/seed.htm>.

ITEM

- 19a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) evidence of uniformity and stability; and (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

The intention is: The progeny of Foundation seed can be sold as Registered seed; the progeny of Registered seed may be sold as Certified seed; the progeny of ~~Certified seed~~ of Certified seed may NOT be sold as pedigreed seed.

23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

Breeder seed was sold and planted in western Canada in 2004; Breeder and Select seed was sold and planted in western Canada in 2005.

24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0025. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

200500301

Exhibit A

Origin and Breeding History of CDC Viceroy

Pedigree:

544-19 x PI 468901

Where: **544-19 is a CDC Breeding line** = Indianhead x Selection 8

The final cross was made in 1996.

Breeding technique used was: F2-derived family method.

Selection criteria: yield, maturity and seed quality in all generations.

Generation breeder seed was first bulked: F8

Lines bulked to form this variety: 18

This variety was observed to be uniform and stable over 6 generations. No variants or off-types were observed

This variety does not contain any traits that are novel to its species.

Name and address of institution maintaining breeder seed:

Crop Development Centre
University of Saskatchewan
51 Campus Drive
Saskatoon, SK S7N 5A8

Clarification to Exhibit A for CDC Viceroy (Application No. 200500301)

Selection 8: is a breeding line developed at the Crop Development Centre, University of Saskatchewan. It was an F2-derived F3 row population developed by Dr, Alfred E. Slinkard, now retired lentil breeder at this institution.

Exhibit B: Statement of Distinctness, CDC Viceroy

The following is the Statement of Distinctiveness for CDC Viceroy.

CDC Viceroy is most similar to the variety CDC Milestone.

Basis a robust statistical analysis, the significant distinguishing characteristics of CDC Viceroy compared with CDC Milestone (basis paired trials conducted in Western Canada in 2005 and 2006) is:

Kernel Weight

The weight of 1000 kernels of CDC Viceroy was 4.3 grams less than CDC Milestone in 2005. In 2006 it was 5.4 grams less.

ENTRY	NAME	2005	2005	2005	2005	2005	2005
		Kyle	Saskatoon	Rosthern	Swift Current	Goodale	Mean
		seed weight g/1000 seeds					
10	CDC Milestone	39.7	35.3	38.0	36.0	37.0	37.2
11	CDC Viceroy	34.7	32.0	33.7	31.0	33.0	32.9
	CV	2.6	2.6	2.7	3.2	2.6	2.7
	LSD	1.5	1.3	1.5	1.6	1.4	1.5
	MSE	1.0	0.8	1.0	1.2	0.9	1.0
	SED	0.8	0.7	0.8	0.9	0.8	0.8
	ALPHA	0.1	0.1	0.1	0.1	0.1	0.1
	REP-MS	1.2	10.9	1.1	0.5	1.4	3.0
	REPS	3	3	3	3	3	3.0
	Seeding date	29-Apr	1-May	18-May	1-May	14-May	

ENTRY	NAME	2006	2006	2006	2006	2006	2006
		Kyle	Saskatoon	Rosthern	Swift Current	Goodale	Mean
		seed weight g/1000 seeds					
10	CDC Milestone	39.7	39.0	42.3	38.7	35.3	39.0
11	CDC Viceroy	33.7	34.0	36.3	32.3	31.7	33.6
	CV	3.6	2.5	1.7	2.7	2.6	2.6
	LSD	2.0	1.3	1.0	1.5	1.3	1.4
	MSE	1.8	0.8	0.5	1.0	0.8	1.0
	SED	1.1	0.7	0.6	0.8	0.7	0.8
	ALPHA	0.1	0.1	0.1	0.1	0.1	0.1
	REP-MS	0.1	0.2	4.4	0.5	15.1	4.0
	REPS	3	3	3	3	3	3.0
	Seeding date	25-Apr	27-Apr	05-May	30-Apr	29-Apr	

260500301

Trial details

- 1 Each trial had 3 replications
- 2 Plot size 4' x 12' = 48 square feet
- 3 Seed weight determination determined by counting 200 seeds using Agriculex seed counter then converted to g/1000 seeds
- 4 All sites in Saskatchewan Canada
- 5 Sample seed weights determined from air-dried plot samples.

LENTIL OBJECTIVE DESCRIPTION

VARIETY NAME:

D. LENTIL OBJECTIVE DESCRIPTION

R1 - CDC Milestone
R2 200500301

Applicant (name and address):

ALBERT VANDENBERG

CROP DEVELOPMENT CENTRE
UNIVERSITY OF SASKATCHEWAN
51 CAMPUS DRIVE
SASKATOON, SK CANADA S7N 5A8

Telephone: 306-966-8786 **Facsimile:** 306-966-5015

1.0 CLASSIFICATION:

1066 E-4

1.1 Botanical name: *Lens culinaris* Medikus

1.2 Proposed variety denomination (name): CDC Viceroy

1.3 Utilization:

feed/food green manure either

2.0 PLANT CHARACTERISTICS

2.1 Plant: growth habit

		CV	R1	R2	R3	R4
prostrate	3	6	6			
intermediate	5					
erect	7					

2.2 Plant: height (cm) (measured during late pod filling stage, from the ground to the tip of the extended foliage)

(#) from Coop data

		CV	R1	R2	R3	R4
mean		32	29			
range		25-40	22-38			

3.0 STEM CHARACTERISTICS

3.1 Stem: seedling stem pigmentation

(#)

		CV	R1	R2	R3	R4
absent	1	9	9			
present	9					

3.2 Stem: number of nodes to first flower

(#)

		CV	R1	R2	R3	R4
average number of nodes		11	11			

LENTIL OBJECTIVE DESCRIPTION

VARIETY NAME: _____

4.0 LEAF CHARACTERISTICS

4.1 Leaf: leaflet width (mm)(measure middle leaflet at the node of the first open flower)

		CV	R1	R2	R3	R4
small	3					
medium	5					
large	7					

4.2 Leaf: leaflet *length* (mm)(measure middle leaflet at the node of the first open flower)

small	3					
medium	5					
large	7					

4.3 Leaf: number of pairs of leaflets (no. of pairs of leaflets at the node of the first open flower)

average number of nodes						
-------------------------	--	--	--	--	--	--

4.4 Leaf: pubescence (observe before maturity)

absent	1					
slight	3					
strong	7					

4.5 Leaf: tendrils (record from flowering nodes)

rudimentary	1					
prominent	9					

5.0 FLOWERING CHARACTERISTICS

5.1 Time to flowering (time in days from sowing to when 50% of the plants have started to flower)

		from COOP DATA.				
early	3	57	57			
medium	5					
late	7					

5.2 Time to maturity (time in days from sowing to when 90% of the pods are golden brown)

early	3	91	89			
medium	5	4	4			
late	7					

5.3 Flower colour

white	1	2	2			
white with blue veins	2					
blue	3					
violet	4					
pink	5					

LENTIL OBJECTIVE DESCRIPTION

VARIETY NAME:

200500301

5.4 Flower: number of flowers per peduncle

CV

R1

R2

R3

R4

average number of flowers					
---------------------------	--	--	--	--	--

6.0 POD CHARACTERISTICS

6.1 Pod: number per peduncle

average number of pods					
------------------------	--	--	--	--	--

6.2 Pod: colour of ripe pods (#)

non-pigmented	1	1	1		
pigmented	9				

6.3 Pod: shattering

susceptible	3				
moderate	5				
resistant	7				

7.0 SEED CHARACTERISTICS

7.1 Seed: weight (100 random seeds after air-drying) FROM COOP DATA

average 100 seed weight	37	42			
-------------------------	----	----	--	--	--

7.2 Seed: diameter (#)

small	3	3	3		
medium	5				
large	7				

7.3 Seed: shape (#)

globose	1	5	5		
flattened	9				

7.4 Seed: ground colour of testa (#)

white	1	2	2		
green	2				
grey	3				
brown	4				
black	5				
pink	6				
other	7				

LENTIL OBJECTIVE DESCRIPTION

VARIETY NAME:

200500301

7.5 Seed: pattern of testa (#)

		CV	R1	R2	R3	R4
absent	1	/	/			
dotted (speckled)	2					
spotted	3					
mottled (marbled)	4					
complex (combo of 2,3,4)	5					

7.6 Seed: colour of pattern on testa

olive-green	1					
grey	2					
violet	3					
brown	4					
black	5					

7.7 Seed: colour of hilum (#)

white	1	/	/			
dull brown	9					

7.8 Cotyledon colour (#)

yellow	3	3	3			
orange-red	5					
green	7					

8.0 AGRONOMIC CHARACTERISTICS

8.1 Lodging susceptibility

low	3					
medium	5					
high	7					

8.2 Low temperature tolerance

not tested	1					
poor	3					
fair	5					
good	7					

9.0 QUALITY CHARACTERISTICS

9.1 Protein content

percentage						
------------	--	--	--	--	--	--

9.2 Cooking quality (time of cooking)

slow	3					
medium	5					
fast	7					

10.0 REACTION TO DISEASES

200500301

- 0 - not tested
- 1 - resistant
- 3 - moderately resistant
- 5 - moderately susceptible
- 7 - susceptible
- 9 - very susceptible

	CV	R1	R2	R3	R4
Ascochyta blight - <i>Ascochyta</i> spp.	R=1	R=1			
Anthracnose - <i>Colletotrichum</i> spp.	R=1	MS=5			
Fusarium root rot - <i>Fusarium</i> spp.					
Other (please specify)					

Race C

11.0 REACTION TO INSECTS

- 0 - not tested
- 3 - low susceptibility
- 5 - intermediate susceptibility
- 7 - high susceptibility

List insects

12.0 Describe traits of the candidate variety that aid in its identification, e.g. Electrophoresis, RFLP's, etc. Please attach data and corresponding protocol.

13.0 Describe any deviant plants, including both off-types and variants observed during seed increase of the candidate variety. The maximum allowable frequency of each variant for each class of pedigree seed must be given.

(#)

14.0 Indicate which characteristics are more useful in distinguishing the described candidate variety. Use objective description key numbers.

(#)

10.0 resistance to anthracnose Race Ct1

7.1 seed weight less than CDC Milestone

15.0 Additional characteristics

200500301

(March 29, 1995/mt)

12

CDC Variety

VARIETY REGISTRATION APPLICATION FORM

Refer to the "Procedures for the Registration of Crop Varieties in Canada" document, to ensure that the application contains sufficient information for registration or contact the Variety Registration Office, Plant Health and Production Division for further information.

In order to avoid unnecessary delays in the registration process, please ensure that all pertinent information along with a properly tagged and sealed reference sample (or in the case of potato varieties, photographic slides) and the appropriate registration fee are submitted with the application.

As original signatures are required to complete the application for registration, applications submitted by facsimile must be followed by original applications sent by mail or courier.

(Publié aussi en français)

Previous versions of the application form should be destroyed

CropCommon name: LentilScientific name: Lens culinaris L.**Experimental Designation(s)**1066E-4**Proposed Variety Name**CDC ViceroyPlease write name **exactly** as it should appear on legal documents with careful attention to the use of hyphens, spaces and capital letters.

I declare that I have not applied for or received a Canadian trademark for the name, of this variety.

October 30,2003

Signature

Date

Has this variety been applied for or granted Plant Breeders' Rights ? Yes No
If yes, the name proposed for registration **must** be the same as the one for Plant Breeders' Rights.In which countries (if any) is this variety presently being marketed?
NoneIs this variety being marketed by **any other name** in other countries? Yes No
If yes, please specify the name(s) and country(s) where sold _____**Registration Type**Full registration: Restricted registration: Interim registration Regional registration Contract registration Reinstatement:

Restrictions to registration are subject to the recommendations of the recommending committee and the provisions of the Seeds Regulations Part III.

Origin and Breeding

The amount of information required varies from crop to crop. Please provide as much detail as possible.

Name and complete address of breeding institution:

Crop Development Centre, University of Saskatchewan, 51 Campus DriveSaskatoon, Saskatchewan, Canada S7N 5A8Telephone #: 306-966-5855Facsimile #: 306-966-5015E-mail address: vandenberg@sask.usask.ca

Pedigree: For hybrid and composite crops, please give the uncoded pedigree and derivation of the inbred lines. For other crops, please provide as much information as possible on the genetic background of the variety.

544-19 x PI 468901

In what year was the final cross made? (only applicable to non hybrid and non-composite varieties)

1996

What breeding techniques were used in developing this variety? (i.e. pedigree selection, clonal selection, single seed descent)

F2-derived family method

What selection criteria were used in developing this variety? In what generation(s) was selection conducted?

Yield, maturity, seed quality, disease resistance in all generations

In what generation was breeder seed first bulked?

F8

How many lines were bulked to form this variety?

18

**Varietal
Characteristics**

Enclose a description of the variety, using the objective description form (ODF) as a guide, where available (ODFs are not yet available for all crops). Please ensure that all varietal and major identifying characteristics (identified by "#" in the ODF) are included.

Does this variety contain traits that are novel to its species?:

- No
- Yes, please describe _____

**Additional
Information**

Please refer to the *Procedures for the Registration of Crop Varieties in Canada* for guidelines specific to some crops. The Variety Registration Office may, in addition to information provided in this application form, require that the applicant supply further information that will allow the Registrar to determine the merit and identity of the variety (i.e. more detailed morphological characteristics, history of development information, data to support disease reaction claims, etc.).

Seed Stocks

Name and address of institution maintaining breeder seed. (If person maintaining breeder seed is a Canadian agent who is not the owner of the variety, a letter of authorization from the owner is required. The Canadian maintainer must be a plant breeder recognized by the Canadian Seed Growers' Association for crops other than potatoes.):

Crop Development Centre, University of Saskatchewan, 51 Campus Drive
 Saskatoon, Saskatchewan Canada S7N 5A8

Do you wish this variety to be added to the "OECD List of Cultivars"? Unless there are exceptional circumstances, CFIA will only add varieties to the OECD List of Cultivars, for which breeder seed is being maintained in Canada. (Composite canola varieties are not added to the OECD list). Failure to complete the appropriate box will result in the variety not being added to the OECD list. If you are requesting addition of a hybrid, please supply descriptions of the inbred lines as well as the hybrid.

Yes No

As part of your obligation for the OECD listing of a variety, upon request, you must supply a description and standard sample of the variety to official OECD certifying agencies.

Canadian Representative

Name and address of Canadian representative (If the applicant is not the breeder or owner of the variety, a signed statement is required from the breeder or owner authorizing representation):

Telephone #: _____ Facsimile #: _____

E-mail address: _____

Canadian Distributor

Name and address of Canadian distributor(s) if different from Canadian representative:

Saskatchewan Pulse Growers

310-111 Research Drive, Saskatoon, SK S7N 3R2

Telephone 306-668-5556

Fax 306-668-5557

Name of Recommending Committee(s)

Prairie Registration Recommending Committee for Grain

Year support was granted: 2002

It is the responsibility of the applicant to include a copy of the letter or motion of support, as well as the experimental data used by the recommending committee to support the variety.

**Reference
Sample**

For details on procedures for submitting reference samples, please see Section II 5.9 and Appendix II of the *Procedures for the Registration of Crop Varieties in Canada*.

**Contract
Registration**

The submission of the proposed quality control system manual for the variety is required under paragraph 68(2)(c) of the *Seeds Regulations*. (See Appendix VI of the *Procedures for the Registration of Crop Varieties in Canada* for more information).

As registrant, I agree that once the variety is registered, upon request, I will provide the Registrar with information relating to the distribution, use and disposition of any seed of the variety or any progeny thereof, and acknowledge that I am responsible for any seed or progeny that is not properly disposed of or accounted for.

Type or print name

Title

Signature

Date

Sign above ONLY if you are applying for contract registration

**ALL
APPLICATIONS
MUST BE
SIGNED HERE**

I certify that the information given in this application form is correct, including that the reference sample is properly drawn and is representative of the variety and meets the purity and germination requirements.

Application completed by: Albert Vandenberg
Type or print name

_____ April 15, 2002
Signature of applicant Date

Crop Development Centre, Univ. of Sask.

NOTE:

- (i) **The applicant must be a permanent resident in Canada.**
- (ii) **The applicant need not be the breeder or owner of the variety. Unless otherwise specified, once a variety is registered, the applicant is considered to be the registrant. Thus, the applicant/registrant must be in a position to accept full responsibility for compliance with all terms and conditions of a restricted registration.**
- (iii) **For foreign bred varieties, all correspondence with respect to the registration of this variety will be addressed to the Canadian representative.**
- (v) **The submission of false or misleading information will result in refusal of registration or in subsequent cancellation.**

APPLICATION CHECKLIST

A complete application package for registration of a variety must be submitted by the applicant, and will include the following:

Please refer to the relevant sections of the *Procedures for the Registration of Crop Varieties in Canada* before submitting application.

1. **Completed Variety Registration Application Form with original signatures on page 1 and page 4.**
2. **Properly sealed and tagged legal reference sample (see Appendix II and Section II.5.9), for potato varieties include slides (see Section II.5.10)**
3. **Description of Variety (see Section II.5.4)**
4. **Appropriate Registration Fees (see Appendix IX)**
5. **Authorization letter from breeder (if applicable) (see Sections II.5 h) and j))**
6. **Recommending Committee support and experimental data (see Section II.5 e) and f))**
7. **Data to substantiate claims (if applicable) (see Section II.5.4 f))**
8. **Kernel description for wheat and triticale (see Section II.5 d))**
9. **Notarized affidavits for PNT's (see Section II.5.6)**
10. **Quality Control System -for contract registration (see Appendix VI)**

Fee Submission for Variety Registration

A separate Fee Submission Form must be used and included in each application package

To be completed by Applicant: (Payment must be made in Canadian funds. No Goods and Services Tax applies.)

Variety: _____

Crop Kind: _____

	Cost	Project code
Application for permanent registration (national, regional, contract)	\$875	3792
Application for interim registration	\$200	3794
Annual renewal of interim registration	\$100	3800
Reinstatement of suspended or canceled registration	\$200	3796
Amending a variety name	\$200	3798

By Cheque or Money Order

Cheque Money Order

Cheques and money orders must be made payable to the Receiver General for Canada. Please ensure that all cheques can be drawn from a Canadian bank.

By Credit Card

Visa Card Holder's Name: _____
Please print

Master Card Company Name: _____ Telephone #: (306) _____

American Express Card Number: _____ / _____
Expiry date

Signature of Card Holder: _____

By Direct Wire Transfer (AAFC Research Centres only)

Name and location of Research Centre

Print name of finance contact Telephone #: () _____

Signature of finance contact IS Org. Code: _____

IS Ref. Code: _____

NOTE: Once review of an application has been initiated, no refund will be issued.

Areas in grey are for office use only

Applicant: _____	Reference #: _____
Date fee received: _____	VARIETY REGISTRATION OFFICE

Appendix C

Objective Description of the Variety

A completed Objective Description of the Variety is attached.

U.S. DEPARTMENT OF AGRICULTURE
EXHIBIT C
AGRICULTURAL MARKETING SERVICE
SCIENCE & TECHNOLOGY DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

200500301 (Lentil)

OBJECTIVE DESCRIPTION OF VARIETY
LENTIL (*Lens culinaris* Medik.)

CDC Viceroy

NAME OF APPLICANT(S) <u>Crop Development Centre</u> <u>University of Saskatchewan</u> ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) <u>51 Campus Drive</u> <u>Saskatoon, SK. S7N 5A8</u>	FOR OFFICIAL USE ONLY	
	PVPO NUMBER	
	VARIETY NAME <u>CDC Viceroy</u>	
		TEMPORARY OR EXPERIMENTAL DESIGNATION <u>1066E-4</u>

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g. or) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 25 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: Royal Horticultural Society

Please answer all questions for your variety; lack of response may delay progress of your application.

1. MATURITY:

Relative Maturity: 1=Early 2=Medium 3=Late

Days from Planting to Harvest.

Days from Planting to Harvest of the Check Variety. Name of the Check Variety = CDC Milestone

2. PLANT HABIT:

Type: 1=Determinate 2=Intermediate 3=Indeterminate

Plant Height in centimeters.

Plant Height of the Check Variety. Name of the Check Variety = CDC Milestone

Pod Position: 1=Low (lower pods touching the soil surface)
2=High (lower pods not touching the soil surface)
3=Scattered (not concentrated high or low)

Adaptability to machine harvest: 1=Adapted 2=Not Adapted

Lodging Resistance: 1=Good 2=Fair 3=Poor

3. LEAFLET MORPHOLOGY:

Leaflet Texture: 1=Smooth 2=Wrinkled

Leaflet Surface: 1=Dull 2=Glossy 3=Semiglossy 4=Variable

Relative Size: 1=Small 2=Medium 3=Large

Leaflet Shape: 1=Ovate 2=Lanceolate 3=Deltoid 4=Cordate 5=Rhomboid

Apex of Leaflet: 1=Acute 2=Acuminate 3=Cuspidate 4=Obtuse

Base of Leaflet: 1=Obtuse 2=Oblique 3=Cordate 4=Cuneate 5=Attenuate

4. FLOWER:

- 6 Color of Standard: 1=White 2=Cream 3=Pink 4=Blue 5=Purple 6=White/Blue 7=Other = _____
- 6 Color of Wings: 1=White 2=Cream 3=Pink 4=Blue 5=Purple 6=White/Blue 7=Other = _____
- 6 Color of Keel: 1=White 2=Cream 3=Pink 4=Blue 5=Purple 6=White/Blue 7=Other = _____
- 5 7 Number of Days to 50 Percent Bloom.

5. POD MORPHOLOGY:

- | | | | | |
|--------------------------|---------------------------------------|-------------------------------------|---|--|
| Green | Mature | | | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> 1 | Color Pattern: | 1=Solid 2=Striped 3=Blotched 4=Mottled 5=Other = _____ | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> 5 | Primary Color: | 1=Purple 2=Red 3=Green 4=Yellow 5=Tan 6=Brown 7=Other = _____ | |
| <input type="checkbox"/> | <input type="checkbox"/> | Color Modifier: | 1=Light 2=Light Medium 3=Medium 4=Medium Dark 5=Dark | |
| <input type="checkbox"/> | <input type="checkbox"/> | Secondary Color: | 1=Purple 2=Red 3=Green 4=Yellow 5=Tan 6=Brown 7=Other = _____ | |
| <input type="checkbox"/> | <input type="checkbox"/> | Cross Section Shape: | 1=Flat 2=Pear 3=Round 4=Figure-8 | |
| <input type="checkbox"/> | <input type="checkbox"/> | Pod Curvature: | 1=Straight 2=Slightly Curved 3=Curved 4=Recurved | |
| <input type="checkbox"/> | <input type="checkbox"/> | Pod Beak Orientation: | 1=Straight 2=Curved Upward 3=Curved Downward 4=Variable | |
| <input type="checkbox"/> | <input type="checkbox"/> | Pod Constrictions: | 1=None 2=Slight 3=Deep | |
| <input type="checkbox"/> | <input type="checkbox"/> | Average Beak Length in millimeters: | | |
| <input type="checkbox"/> | <input type="checkbox"/> | Average Number of Seeds per Pod: | | |

6. SEED COLOR:

- 2 Seed Luster: 1=Shiny 2=Dull 3=Semishiny 4=Variable
- 1 1=Monochrome 2=Polychrome
- 1 1 Primary Color: 1=White 2=Yellow 3=Beige 4=Tan 5=Brown 6=Pink 7=red 8=Purple 9=Blue 10=Black 11=Green 12=Other = _____
- Secondary Color: 1=White 2=Yellow 3=Buff 4=Tan 5=Brown 6=Pink 7=red 8=Purple 9=Blue 10=Black 11=Green 12=Other = _____
- Seed Fleck Color: 1=White 2=Yellow 3=Buff 4=Tan 5=Brown 6=Pink 7=red 8=Purple 9=Blue 10=Black 11=Green 12=Other = _____
- Seedcoat Color Pattern: 1=Solid 2=Splashed 3=Mottled 4=Striped 5=Flecked 6=Dotted
- Hilum Color: 1=White 2=Yellow 3=Buff 4=Tan 5=Brown 6=Pink 7=red 8=Purple 9=Blue 10=Black 11=Green 12=Other = _____
- 1 Cotyledon Color: 1=Yellow 2=Orange 3=Red 4=Yellow/Orange 5=red/Orange

7. SEED SHAPE AND WEIGHT:

- 1 Shape: 1=Round 2=Oval 3=Cuboid 4=Kidney 5=Truncate/Fastigate
- 3 7 Dry Seed Weight in Grams per 100 Seeds (adjusted to 12% moisture)

200500301

8. ANTHOCYANIN PIGMENTATION: 1=Absent 2=Present

Flowers
 Stems
 Pods
 Seeds
 Leaves
 Petioles
 Peduncles
 Nodes

9. DISEASE or PEST REACTION: 1=Susceptible 2=Resistant 3=Tolerant 4=Avoidance 0=Not Tested

(Give the common name (CN), scientific name (SN), and race/biotype/pathotype (R), where applicable)

Anthracnose (*Colletotrichum* ssp.) Race Ct1
 Ascochyta (*Ascochyta pisi*)
 Fusarium (*Fusarium solani*)
 Pythium (*Pythium ultimum*)
 Pea Enation Mosaic Virus
 White Mold (*Sclerotinia sclerotiorum*)
 CN _____ SN _____ R _____
 CN _____ SN _____ R _____
 CN _____ SN _____ R _____
 CN _____ SN _____ R _____
 CN _____ SN _____ R _____
 CN _____ SN _____ R _____
 CN _____ SN _____ R _____
 CN _____ SN _____ R _____
 Weevils
 CN _____ SN _____ R _____
 CN _____ SN _____ R _____

10. PHYSIOLOGICAL STRESS REACTION: 1=Susceptible 2=Resistant 3=Tolerant 4=Avoidance 0=Not Tested

Heat
 Cold
 Drought
 Air Pollution

11. COMMENTS:

Up to 20% of seeds have a faint mottling that appears at maturity. Colour of mottling is faded gray, similar to the varieties Eston and CDC Milestone.

Exhibit D**Additional Description of the Variety**

Attached are:

- i. Statistical tables from the PRRCG's 2000 Lentil Co-operative Trial in Western Canada.
- ii. Statistical tables from the PRRCG's 2001 Lentil Co-operative Trial in Western Canada.
- iii. Letter of 'Names Cleared'

Table 1. Agronomic performance summary for entries in the 2000 Lentil Co-operative Trial "A" in western Canada

Market class	Line	Years in trial	Cot. colour	Seed coat	kg/ha	Yield		Days to flower	Days to maturity	Height (cm)	Lodging (1-9)	Seed weight g/1000	% seed over >12/84	Anthracnose 2000 rating field (0-11)	Ascochyta Infection seed %
						% of check	% of Milestone								
Small green	CDC Milestone	5	Y	G	2222	100	100	58	92	32	4.5	39	48	6.7	2.3
Small green	1031-E-7	1	Y	G	2086	94	94	59	96	37	3.5	34	25	7.7	0.0
Small green	1047-E-1	1	Y	G	2030	91	91	57	95	38	3.5	37	62	7.3	0.0
Small green	1047-E-4	1	Y	G	1919	86	86	57	97	35	3.5	36	39	7.3	2.0
Small green	1048-6R	1	Y	G	2200	99	99	57	93	34	3.5	34	41	7.3	1.0
Small green	1048-8R	1	Y	G	2178	98	98	58	96	39	2.0	37	56	6.0	4.7
Small green	1052-5R	1	Y	G	2034	82	92	58	93	36	3.0	36	59	7.3	2.0
Small green	1064-E-7	1	Y	G	1991	90	90	56	93	37	2.0	36	31	7.0	0.0
Small green	1066-E-4	1	Y	G	2234	101	101	57	94	37	3.5	32	26	6.7	2.0
Small green	1070-8R	1	Y	G	2101	95	95	57	92	35	3.5	38	59	7.0	2.0
Small green	1071-14R	1	Y	G	1965	88	88	58	96	35	4.0	39	72	8.0	1.0
Small green	1071-26R	1	Y	G	2104	95	95	58	97	36	3.5	38	47	8.3	1.7
Small green	1134-4-36	1	Y	G	2044	92	92	56	94	32	4.0	31	16	7.0	5.0
Small green	1156-2-17	1	Y	G	2299	103	103	55	96	36	4.0	48	83	7.7	0.0
Small green	970-16	1	Y	G	1761	79	79	54	95	33	6.0	32	28	6.0	16.3
Small red	CDC Redwing	6	R	G	1778	100	80	56	97	38	3.5	38	55	6.7	0.3
Small red	1062-15R	1	R	G	2092	118	94	58	97	36	3.0	45	81	7.7	2.3
Small red	1062-22R	1	R	G	2041	115	92	57	92	35	5.0	40	81	7.5	1.7
Small red	971-16	2	R	M	1929	108	87	54	95	32	5.5	34	24	8.3	1.3
Small red	968-30	2	R	B	1760	99	79	56	96	33	3.0	29	12	8.7	0.7
Small red	970-19	2	R	G	1814	102	82	54	95	30	5.0	33	27	8.7	2.7
Small red	986-31	2	R	B	1778	100	80	56	94	30	5.5	31	25	8.3	0.0
Small red	997-5	2	R	B	1943	109	87	56	92	30	1.5	36	40	7.3	0.0
Small red	CDC Redcap	3	R	G	1984	112	90	54	94	35	3.5	34	24	7.7	0.3
Small red	CDC Robin	3	R	B	1691	95	76	56	98	35	2.5	28	1	7.7	0.7
Small red	Crimson	3	R	B	1919	108	86	56	91	28	7.5	37	30	9.0	26.0
French green	French Green	3	Y	M	2008	100	90	54	95	33	6.0	33	15	8.3	23.7
French green	983-87	2	Y	M	1988	99	90	57	95	35	6.0	33	34	8.0	9.0
Spanish brown	901-1Y	1	Y	P	2129	NA	96	57	95	40	3.5	30	12	7.0	1.3
Medium green	960-5	2	Y	Y	2060	NA	94	58	98	40	2.5	56	62	7.7	3.3

Lines in bold type are checks for market class. Numbers in [] indicate number of sites.

Codes for seed characters. Cotyledon colour: Y-yellow; R-red. Seed coat: G-green; M-dark marbled pattern; B-brown; P-Pardina type.

NA - not available.

Table 2. Yield performance by site in kg/ha for entries in the 2000 Lentil Co-operative Trial "A" in western Canada

Market class	Line	Years in trial	Cot. colour	Seed coat	Yield in kg/ha										Yield % of check		Milestone
					Preston	Goodale	Floral	Eirose	Carlyle	Current	Valley	Scott	Rosthern	Mean	check		
Small green	CDC Milestone	5	Y	G	2125	2690	2532	2816	1811	2734	1063	2480	1745	2222	100	100	84
Small green	1031-E-7	1	Y	G	2099	2072	2169	3084	1710	2629	768	2311	2018	2096	94	84	84
Small green	1047-E-1	1	Y	G	2029	2366	2048	2363	1921	2637	731	2419	1873	2030	91	91	81
Small green	1047-E-4	1	Y	G	2072	1980	2054	2612	1493	2379	508	2137	1736	1919	88	88	88
Small green	1048-9R	1	Y	G	2397	2768	2381	2494	1895	2852	786	2227	1881	2200	99	99	98
Small green	1048-9R	1	Y	G	2326	2220	2207	2708	1438	2693	937	2675	2395	2178	98	98	98
Small green	1052-5R	1	Y	G	2315	2460	2152	2659	1249	2657	592	2405	1917	2034	92	92	92
Small green	1084-E-7	1	Y	G	2006	2616	2071	2243	1886	2344	756	2095	1808	1991	90	90	90
Small green	1088-E-4	1	Y	G	2261	2900	1981	2554	2174	2766	1001	2321	2148	2234	101	101	101
Small green	1070-8R	1	Y	G	2082	2309	2091	2777	1572	2684	1004	2275	1936	2101	95	95	95
Small green	1071-14R	1	Y	G	2185	2220	2282	2516	1827	2456	841	2091	1730	1955	88	88	88
Small green	1071-28R	1	Y	G	1875	2467	2288	2608	1779	2964	770	2278	2003	2104	95	95	95
Small green	1134-4-36	1	Y	G	2317	2121	1773	2798	1773	2709	971	2138	1796	2044	92	92	92
Small green	1158-2-17	1	Y	G	1850	3042	2803	2942	2046	2442	1215	2456	2095	2299	103	103	103
Small green	970-18	1	Y	G	1875	2016	1780	2468	1152	2453	745	1901	1832	1791	79	79	79
Small red	CDC-Redwing	6	R	G	1687	1552	1847	2367	1264	2678	943	2232	1422	1778	100	100	80
Small red	1062-16R	1	R	G	2306	2213	2216	3054	1542	2508	904	2208	1877	2092	118	118	84
Small red	1062-22R	1	R	G	2049	2547	2033	2564	1513	2681	857	2299	1822	2041	115	115	92
Small red	971-16	2	R	M	1756	2369	2027	2714	1228	2755	767	1762	1982	1929	108	108	87
Small red	986-30	2	R	B	1899	1586	1753	2158	1458	2701	927	1852	1515	1760	98	98	79
Small red	970-19	2	R	G	1651	2267	2163	2420	1360	2244	632	1837	1736	1814	102	102	82
Small red	996-31	2	R	B	1693	1564	1791	2577	1453	2798	880	1618	1628	1778	100	100	80
Small red	997-5	2	R	B	2131	1927	2054	2293	1748	2720	1054	1905	1660	1943	109	109	87
Small red	CDC Redcap	3	R	G	1926	2474	2067	2375	1658	2633	1131	2122	1559	1904	112	112	90
Small red	CDC Robin	3	R	B	1459	1750	2057	2383	1505	2625	749	1717	1073	1691	95	95	76
Small red	Crimson	3	R	B	1918	1998	1993	2468	1431	2598	1022	2022	1826	1919	108	108	86
French green	French Green	3	Y	M	1811	2018	2278	2479	1473	2660	809	2508	2038	2008	100	100	90
French green	963-87	2	Y	M	1793	2278	2338	2317	1748	2711	743	2206	1905	1998	99	99	90
Spanish brown	901-1Y	1	Y	P	1604	2149	2363	2540	1804	2871	853	2393	2194	2129	NA	NA	96
Medium green	950-8	2	Y	Y	2211	1991	2078	2607	1646	2598	1087	2539	1885	2080	NA	NA	94
Mean					1902	2231	2116	2568	1609	2639	872	2150	1831	1994			
CV (%)					13.5	13.5	13.9	10.1	14.8	11.8	14.1	9.9	13.3				
LSD (0.05)					193	228	110	198	181	236	93	164	185				

Lines in bold type are checks for market class.

Codes for seed characters. Cotyledon colour: Y-yellow; R-red. Seed coat: G-green; M-dark marbled pattern; B-brown; P-Pardina type.

NA - not available.

Table 3. Agronomic performance summary for entries in the 2000 Lentil Co-operative Trial "B" in western Canada

Market class	Line	Years in trial	Seed coat	kg/ha	Yield		Days to flower	Days to maturity	Height (cm)	Lodging (1-9)	Seed weight g/1000	% seed over			Anthracnose field rating 2000 (0-11)	Aecochoyta infection seed %
					% of check	% of Milestone						>17/84	>19/84	>12/84		
large green	CDC Glamis	5	G	1807	100	86	61	98	44	3.5	64	7	40	73	7.3	0.0
large green	CDC Grandora	4	G	1662	92	79	60	99	46	3.0	70	36	67	85	8.0	19.0
large green	CDC Sovereign	3	G	1810	100	86	60	98	48	3.0	86	7	46	78	7.3	19.0
large green	925-6	2	G	1840	91	78	57	95	40	6.5	66	15	50	82	7.3	0.7
large green	964a-4	2	G	2068	115	98	58	95	43	4.0	65	14	52	82	7.7	0.3
large green	964a-46	2	G	1878	109	94	58	96	44	4.0	66	18	56	82	8.3	3.7
large green	964a-58	2	G	1902	105	90	60	98	43	4.5	69	27	61	81	8.0	10.7
large green	964a-9	2	G	1838	107	92	55	97	46	2.0	68	18	54	80	6.7	1.7
large green	964b-16	2	G	1777	98	84	58	95	44	2.5	70	26	59	80	8.0	6.3
large green	1041-13R	1	G	1796	99	85	56	92	46	3.0	63		29	65	8.0	1.0
large green	1041-8R	1	G	1861	108	93	58	96	44	2.5	62	9	46	71	8.0	0.7
ledium green	CDC Vantage	5	G	1917	106	91	58	93	44	2.5	51			5	8.0	2.7
ledium green	1038-L-18	1	G	2187	122	104	58	92	43	3.5	50			6	8.0	0.0
ledium green	1036-L-11	1	G	1993	110	95	56	93	43	5.0	55			32	7.7	3.0
ledium green	1055-L-4	1	G	1630	90	78	58	96	40	4.0	59			33	8.0	9.3
small green	CDC Milestone	5	G	2103	116	100	56	90	36	3.5	38				8.3	6.0
small green	PI 468901	1	G	1986	110	94	60	92	43	4.0	37				6.7	9.7
small green	984-8	1	M	1833	101	87	58	91	38	3.0	34			10	8.0	21.0

Numbers in [] indicate number of sites.

Lines in bold type are checks for large green market class (Glamis) and overall yield (Milestone)

Codes for seed characters. Seed coat: G - green; M - dark marbled pattern; B - brown; P - Pardina type.

Table 4. Yield performance by site in kg/ha for entries in the 2000 Lentil Co-operative Trial "B" in western Canada

Market class	Line	Years in trial	Seed coat	Yield in kg/ha											Yield % of	
				Preston	Goodale	Floral	Elrose	Carlyle	Swift	Fox Valley	Scott	Rosthern	Mean	CDC Glamis	Milestone	
Large green	CDC Glamis	5	G	1972	1972	1618	2669	1135	2468	993	2199	1239	1807	100	86	
Large green	CDC Grandora	4	G	2192	1059	1513	2339	1036	2384	960	2051	1424	1662	92	79	
Large green	CDC Sovereign	3	G	2260	2050	1798	2364	1449	2169	703	2072	1491	1810	100	86	
Large green	925-5	2	G	1902	1919	1868	2283	979	1896	755	1772	1394	1640	91	78	
Large green	964a-4	2	G	2797	1932	1956	2660	1270	2782	1227	2397	1603	2059	115	98	
Large green	964b-4b	2	G	2298	1748	1856	2541	1448	2863	1146	2330	1569	1978	108	94	
Large green	964a-5b	2	G	2346	1624	1692	2402	1010	2931	1143	2475	1489	1902	105	90	
Large green	964a-9	2	G	2326	1976	1806	2667	910	2828	1094	2513	1337	1938	107	92	
Large green	964b-16	2	G	2016	1578	1935	2653	990	2557	883	2016	1361	1777	98	84	
Large green	1041-13R	1	G	1937	1995	1964	2304	1385	2417	875	1837	1453	1796	99	85	
Large green	1041-8R	1	G	2073	2012	2071	2894	1297	2742	780	2082	1603	1961	108	93	
Medium green	CDC Vantage	5	G	2332	1851	1915	2597	1056	2610	1307	2316	1268	1917	106	91	
Medium green	1038-L-18	1	G	2545	2159	2511	2646	1424	3191	1309	2350	1637	2197	122	104	
Medium green	1038-L-11	1	G	2161	2106	2067	2388	1435	2902	1364	2106	1404	1993	110	95	
Medium green	1055-L-4	1	G	1650	1996	1475	2453	958	2273	806	1930	1133	1630	90	78	
Small green	CDC Milestone	5	G	2147	2607	2227	2395	1643	3049	1209	2286	1369	2103	116	100	
Small green	PI 469501	1	G	1855	2615	2105	2492	1512	2526	1032	2072	1684	1986	110	94	
Small green	964-8	1	G	1883	1499	2148	2275	1564	2707	886	1876	1760	1833	101	87	
GRAND MEAN				2139	1928	1912	2507	1250	2627	1031	2149	1455	1889			
CV (%)				13.0	13.2	13.0	13.3	18.8	9.0	11.3	7.3	11.6				
LSD (0.05)				215	199	94	259	181	183	90	121	131				

Lines in bold type are checks for large green market class (Glamis) and overall yield (Milestone).

Codes for seed characters. Seed coat: G - green; M - dark marbled pattern; B - brown; P - Pardina type.

Table 5. Yield performance in kg/ha of small-seeded second year entries in the Lentil Co-operative Trials in western Canada in 1999-2000

Year	Location	Small green	Small red - Coop "A"			(check)	
		(check) CDC Milestone	(check) CDC Redwing	997-5	971-16	French green	983-87
1999	Goodale - Disease	2984	2587	3350	2634	1136	1655
	Preston	2275	1826	1257	2036	2071	2406
	Rosthem	2898	2364	2181	2853	2349	2659
	Scott	2990	2389	2067	2573	2078	2579
	Swift Current	3077	2562	2751	3152	2989	2969
	Floral	2882	1856	1874	2781	2656	2586
	Melfort	1562	1115	1373	1004	1311	1488
2000	Preston-disease	2125	1697	2131	1756	1811	1733
	Goodale	2690	1552	1927	2369	2018	2278
	Floral	2532	1847	2054	2027	2278	2338
	Elrose	2816	2367	2293	2714	2479	2317
	Cariyle	1811	1264	1748	1228	1473	1748
	Swift Current	2734	2678	2720	2755	2660	2711
	Fox Valley	1063	943	1054	767	809	743
	Scott	2480	2232	1905	1762	2508	2206
Rosthem	1745	1422	1660	1982	2038	1905	
Mean of 16 sites		2417	1919	2022	2150	2042	2145
% of CDC Milestone		100	79	84	89	84	89
% of CDC Redwing		126	100	105	112		
% of French Green		118				100	105

Table 6. Two year yield performance of medium-seeded green lentil line 950-8 in the Lentil Co-operative Trials in western Canada in 1999-2000

Year	Location	Yield in kg/ha		Coop "B" Yield in kg/ha		Coop "A" Yield in kg/ha	
		(check) CDC Milestone	950-8	(check) CDC Milestone	(check) CDC Vantage	(check) CDC Milestone	950-8
1999	Goodale - Disease	2984	2901				
	Preston	2275	1275				
	Rosthern	2898	3165				
	Scott	2990	2713				
	Swift Current	3077	2820				
	Floral	2882	2596				
	Melfort	1562	1323				
2000	Preston-disease	2125	2211	2147	2332	2125	2211
	Goodale	2690	1991	2607	1851	2690	1991
	Floral	2532	2078	2395	2597	2532	2078
	Elrose	2816	2687	1643	1056	2816	2687
	Carlyle	1811	1646	2227	1915	1811	1646
	Swift Current	2734	2598	3049	2610	2734	2598
	Fox Valley	1063	1087	1209	1307	1063	1087
	Scott	2480	2539	2286	2316	2480	2539
Rosthern	1745	1885	1369	1268	1745	1885	
Mean of sites		2417	2220	2103	1917	2222	2080
1999-2000 % of CDC Milestone		100	92				
2000 "B" % of CDC Vantage				100	91		
2000 "A" % of CDC Milestone						100	94

7. Two-year summary of agronomic performance of small and medium-seeded lines the 1999-2000 Lentil Co-operative Trial in western Canada

Line	NAME	Milestone	Years in trial	Cotyledon colour	Seed coat	Yield 1999-2000		Days to flower	Days to maturity	Height (cm)	Lodging (1-9)	Seed weight g/1000	% seed over >12/84	Anthracnose		Ascochyta ratings	
						kg/ha	% of check							1999	2000	1999	2000
green	Milestone		6	Y	G	2417	100	58	94	35	4.5	37	45	HS	S/S	0.0	R
red	Redwing		7	R	G	1919	79	58	97	38	3.5	37	53	HS	S/S	1.5	R
red	971-16		2	R	M	2150	112	53	96	35	5.5	34	31	HS	S/S	0.0	R
red	998-30		2	R	B	1980	103	56	96	37	3.0	28	11	HS	R/S	2.0	S
red	970-19		2	R	G	2143	112	53	96	34	5.0	32	24	HS	S/S	2.5	S
red	988-31		2	R	B	1965	102	56	95	35	5.5	30	22	HS	R/S	0.5	R
red	987-5		2	R	B	2144	112	56	94	34	1.5	34	38	HS	S/S	0.5	R
red	CDC Robin		3	R	B	1879	98	56	98	39	2.5	26	1	MS	R/S	1.0	R
h green	French green		4	Y	M	2042	100	57	96	36	6.0	31	13	S	S/S	2.0	S
h green	963-87		2	Y	M	2145	105	58	96	39	5.0	32	29	S	S/S	2.5	S
lm green	950-8		2	Y	G	2220	NA	58	100	43	2.5	53	35	S	R/S	0.5	R

In bold type are checks for market class. Number in [] indicate number of sites.
 s for seed characters. Cotyledon colour: Y-yellow; R - red. Seed coat: G - green; M - dark marbled pattern
 ology codes: GH - greenhouse; HS - highly susceptible; MS - moderately susceptible; S - susceptible; R - resistant.

Table 6. Two year yield performance in kg/ha of large-seeded entries in the Lentil Co-operative Trials in western Canada in 1999-2000.

Year	Location	Large green market class									
		(yield check)		(check)		925-5	984a-4	984a-46	984a-58	984a-9	984b-16
		CDC Milestone	CDC Glamis								
1999	Goodale - Disease	2884	2523	1746	2488	2858	3409	2653	2030		
	Preston	2275	1157	2253	1459	1801	1576	1781	1549		
	Rosthern	2898	2024	2175	2844	2155	2129	1895	2182		
	Scott	2990	2239	2331	2794	2839	2317	2455	2331		
	Swift Current	3077	2214	2337	3094	2613	2632	2844	2687		
	Floral	2882	1367	2008	1804	2114	1975	1520	1809		
	Melfort	1562	980	512	1146	1042	807	892	843		
	Preston-disease	2147	1972	1902	2797	2298	2348	2326	2016		
	Goodale	2607	1972	1919	1932	1748	1624	1976	1578		
	Floral	2395	2669	1868	2660	2541	2402	2667	2653		
2000	Floral	1643	1135	2283	1270	1448	1010	910	990		
	Elrose	2227	1618	979	1956	1856	1692	1806	1935		
	Carlyle	3049	2488	1898	2782	2863	2931	2928	2557		
	Swift Current	1209	993	755	1227	1146	1143	1084	883		
	Fox Valley	2286	2199	1772	2397	2330	2475	2513	2016		
	Scott	1369	1239	1394	1603	1569	1489	1337	1361		
	Rosthern	2350	1798	1758	2139	2064	1997	1968	1639		
	Mean of 16 sites	100	77	75	91	88	85	84	78		
	% of CDC Milestone	131	100	98	119	115	111	109	102		
	% of CDC Glamis										

9. Two-year summary of agronomic performance of large green market class lines in the 1999-2000 Lentil Co-operative Trial in western Canada

Site	Line	Years In trial	Yield kg/ha	Yield % of check	Milestone % of	Days to flower	Days to maturity	Height (cm)	Lodging (1-9)	Seed weight g/1000	[9]			Anthracnose		Ascochyta ratings			
											[4]	[8]	[1]	Field		GH Race 1/9	GH Isolate 389-1 (0-5) rating	2000 Seed % Infection	
														>17/84	>16/84				>15/84
green	CDC Giamis	5	1807	100	77	61	100	44	3.5	59	5	30	64	7.3	S	S/S	0.0	R	0.0
green	CDC Milestone	5	2103	131	100	57	92	37	3.5	36	11	40	76	8.3	HS	S/S	0.0	R	6.0
green	925-5	2	1640	98	75	57	98	39	6.5	63	9	39	73	7.3	S	S/S	1.0	R	0.7
green	964a-4	2	2069	119	91	59	98	42	4.0	61	15	44	74	7.7	S/MS	S/S	0.0	R	0.3
green	964a-46	2	1978	115	88	59	98	43	4.0	63	22	49	76	8.0	S	S/S	1.5	R	3.7
green	964a-58	2	1902	111	85	60	100	43	4.5	66	14	44	72	6.7	MS	S/S	3.5	S	10.7
green	964a-9	2	1938	109	84	58	99	44	2.0	64	23	50	75	8.0	S	S/S	2.0	S	1.7
green	964b-16	2	1777	102	78	59	98	43	2.5	67	23	50	75	8.0	S	S/S	2.0	S	6.3

in bold type are checks for market class (Giamis) and overall yield (Milestone). Numbers in [] indicate number of sites

biology codes: GH - greenhouse; HS - highly susceptible; MS - moderately susceptible; S - susceptible; R - resistant.

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2000

TABLE	ENTRY	Market class	NAME	Years in trial	Cotyledon colour	Seed coat	Yield		Days to flower	Days to maturity	
							kg/ha	% of check			
1	2	Small green	CDC Milestone	5	Y	G	2222	100	100	58	92
16	1	Small red	CDC Redwing	6	R	G	1778	100	80	56	97
19	8	Small red	971-16	2	R	M	1929	108	87	54	95
20	9	Small red	966-30	2	R	B	1760	99	79	56	96
21	10	Small red	970-19	2	R	G	1814	102	82	54	95
22	11	Small red	996-31	2	R	B	1778	100	80	56	94
23	7	Small red	997-5	2	R	B	1943	109	87	56	92
25	4	Small red	CDC Robin	3	R	B	1691	95	76	56	98
27	3	French green	French Green	3	Y	M	2008	100	90	54	95
28	12	French green	983-87	2	Y	M	1998	99	90	57	95
30	13	Medium green	950-8	2	Y	Y	2080	NA	94	58	98

Market class	Line	Years in trial	kg/ha	Yield		Days to flower	Days to mature
				% of check	% of Milestone		
Small green	Milestone	5	2667	100	100	57	99
Small red	Redwing	6	2100	100	79	56	99
Small red	971-16	1	2434	116	91	53	100
Small red	966-30	1	2264	108	85	55	99
Small red	970-19	1	2566	122	96	53	98
Small red	996-31	1	2204	105	83	56	99
Small red	997-5	1	2402	114	90	56	99
Small red	CDC Robin	2	2122	101	80	56	99
French green	French green	3	2084	100	78	61	98
French green	983-87	1	2335	112	88	60	100
Medium green	950-8	1	2399	90	90	59	104
Small green	Milestone	5	2417	100	100	58	94
Small red	Redwing	6	1919	100	79	56	97
Small red	971-16	1	2150	112	89	53	96
Small red	966-30	1	1980	103	82	56	96
Small red	970-19	1	2143	112	89	53	96
Small red	996-31	1	1965	102	81	56	95
Small red	997-5	1	2144	112	89	56	94
Small red	CDC Robin	2	1879	98	78	56	98
French green	French green	3	2042	100	84	57	96
French green	983-87	1	2145	105	89	58	96
Medium green	950-8	1	2220	NA	92	58	100

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[7] Height (cm)	[1] Lodging (1-9)	[9] Seed weight g/1000	[5] % seed over >12/64	[1] Anthracnose field rating (0-11)	Ascochyta infection seed %
32	4.5	39	48	8.7	
38	3.5	38	55	8.7	
32	5.5	34	24	8.3	
33	3.0	29	12	8.7	
30	5.0	33	27	8.7	
30	5.5	31	25	8.3	
30	1.5	36	40	7.3	
35	2.5	28	1	7.7	
33	6.0	33	15	8.3	
35	5.0	33	34	8.0	
40	2.5	56	62	7.7	

[4] Height (cm)	[4] Seed weight (g/1000)	[4] % over 12/64 screen	[4] % over 17/64 screen	[4] % over 16/64 screen	[4] % over 15/64 screen	Ascochyta ratings in greenhouse isolate 389-1		Anthracnose Races 1/9 greenhouse
						(0-5)	rating	
37	35	43				0.0	R	S/S
38	35	52				1.5	R	S/S
37	34	39				0.0	R	S/S
40	28	9				2.0	S	R/S
37	32	19				2.5	S	S/S
39	29	19				0.5	R	R/S
37	32	35				0.5	R	S/S
41	28	2				1.0	R	R/S
38	30	10				2.0	S	S/S
42	32	22				2.5	S	S/S
44	50		0	1	21	0.5	R	R/S
35	37	45						
38	37	53						
35	34	31						
37	28	11						
34	32	24						
35	30	22						
34	34	38						
39	28	1						
36	31	13						
39	32	29						
43	53	35						

200500301

ratings

Field

HS

HS

HS

HS

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CDC Viceroy

Table 1. Agronomic performance summary for entries in the 2001 Lentil Co-operative Trial "A" in western Canada

Market class (MC)	Line	Years in trial	Cot. colour	Seed coat	Yield		Days to flower	Days to maturity	Height (cm)	Lodging (1-9)	Seed weight g/1000	% seed over >12/84	Anthracnose rating	
					kg/ha	% of MC check							90B36	95A8
Medium green	1158-2-17	2	Y	G	1484	NA	103	89	31	1.3	59	93	MR	S
Small green	CDC Milestone	7	Y	G	1421	100	100	87	27	2.7	48	74	MS	S
Small green	1048-8R	2	Y	G	1271	89	89	89	28	2.7	44	73		
Small green	1048-8R	2	Y	G	1558	109	109	92	30	3.0	48	98	MS	S
Small green	1088-E-4	2	Y	G	1458	103	103	88	29	2.8	41	39	R	S
Small green	1070-9R	2	Y	G	1307	92	92	90	29	5.4	48	79		
Small green	1114-6	1	Y	G	1271	89	89	91	28	1.7	49	84		
Small green	1118-1-1	1	Y	G	1360	96	96	89	28	2.8	44	39		
Small green	1118-1-17	1	Y	G	1278	90	90	89	28	2.4	38	28		
Small green	1118-1-7	1	Y	G	1387	98	98	88	30	3.3	44	64		
Small green	1134-4-17	1	Y	G	1382	96	96	88	27	2.0	44	54		
Small green	1134-4-27	1	Y	G	1407	99	99	84	28	3.3	47	82		
Small green	1134-4-39	1	Y	G	1407	99	99	90	28	3.0	48	93		
Small green	1134-4-5	1	Y	G	1367	96	96	88	28	1.7	42	44		
Small green	PI488901	2	Y	G	1333	84	84	92	33	4.3	46	76		
Small red	Chimoon	4	R	B	1134	100	80	88	24	5.1	45	68		
Small red	CDC Blaze	3	R	B	1070	94	75	64	27	3.0	44	66		
Small red	CDC Radcap	4	R	G	1039	92	73	52	28	2.4	43	48		
Small red	CDC Robln	4	R	B	1128	98	79	54	28	2.0	36	5	R	S
Small red	1082-15R	2	R	G	1343	118	94	88	31	3.3	57	98		
Small red	1082-22R	2	R	G	1287	113	91	55	31	3.3	50	92		
Small red	1110-13RY-5	1	R	B	1376	121	97	88	28	3.0	42	82		
Small red	1119-2-10	1	R	G	1430	128	101	84	27	3.0	49	71		
Small red	1119-2-3	1	R	B	1427	128	100	88	29	2.0	45	84		
Small red	1119-2-7	1	R	B	1391	122	97	88	28	3.8	47	75		
Small red	1125-1-6	1	R	B	1437	127	101	80	29	2.3	38	27		
Small red	1128-4	1	R	B	1327	117	93	88	31	4.6	38	13		
Small red	1145-3-6	1	R	B	1398	123	98	89	31	1.7	47	80		
Small red	1145-3-8	1	R	B	1241	108	87	86	28	1.7	41	37		
Small red	1152-2-6	1	R	B	1217	107	86	84	28	1.3	41	48		
Small red	1264s-1	1	R	B	1215	107	88	88	30	2.3	52	88		
Small red	971-16	3	R	BM	874	77	81	62	25	3.0	41	44		
Spanish brown	Pardina	1	Y	P	1066	100	74	52	25	4.7	46	55		
Spanish brown	1076-13	1	Y	P	1480	140	104	88	29	2.2	53	94		
Spanish brown	1076-4	1	Y	P	1361	128	96	88	31	2.7	48	67		
Spanish brown	901-1Y	2	Y	P	1281	121	90	87	28	2.3	38	17		
	Mean				1310		92							

Lines in bold type are checks for market class. Numbers in [] indicate number of sites.
 Codes for seed characters. Cotyledon colour: Y-yellow; R-red. Seed coat: G-green; M-dark marbled pattern; B-brown; P-Pardina type.
 NA-not available. Anthracnose ratings: R-resistant; MR-moderately resistant; MS-moderately susceptible; S-susceptible

Table 2. Yield performance of entries in the 2001 Lentil Co-operative Trial "A" in western Canada

Market class (MC)	Line	Years in trial	Cat. colour	Seed coat	Yield in kg/ha					Yield % of			
					Goodale	Elrose	Scott	Swift	Asanib	Row 1a1	Mean	MC check	CDC Milestone
Medium green	1156-2-17	2	Y	G	2230	870	1235	1710	1908	929	1454	NA	103
Small green	CDC Milestone	7	Y	G	1845	877	1373	1608	2150	878	1421	100	100
Small green	1048-8R	2	Y	G	2095	877	1382	1467	946	1088	1271	89	89
Small green	1046-8R	2	Y	G	2306	881	1457	1188	2336	1157	1558	109	109
Small green	1068-E-4	2	Y	G	1861	762	1405	1873	1847	1102	1458	103	103
Small green	1070-8R	2	Y	G	1748	773	1146	1386	1667	923	1307	82	82
Small green	1114-6	1	Y	G	1993	813	1215	1173	1538	805	1271	99	99
Small green	1118-1-1	1	Y	G	2003	841	1228	1650	1782	845	1380	98	98
Small green	1118-1-17	1	Y	G	1848	813	1137	1342	1808	1108	1276	80	80
Small green	1118-1-7	1	Y	G	1889	717	1102	1448	1982	1281	1397	98	98
Small green	1134-4-17	1	Y	G	1921	861	1188	1284	2300	809	1362	98	98
Small green	1134-4-27	1	Y	G	1982	738	1278	1386	2084	881	1407	99	99
Small green	1134-4-39	1	Y	G	1811	676	1280	1493	2121	951	1407	99	99
Small green	1134-4-6	1	Y	G	1978	628	1258	1141	2187	1041	1387	98	98
Small green	PL468901	2	Y	G	1942	608	1145	1331	1831	1110	1333	94	94
Small red	Crimson	4	R	B	1340	633	1288	1132	1597	922	1134	100	80
Small red	CDC Blaze	3	R	B	1465	480	1046	949	1517	993	1070	94	75
Small red	CDC Redcap	4	R	G	1885	676	1133	1055	833	732	1039	92	73
Small red	CDC Robin	4	R	B	1812	504	1189	1097	1492	871	1128	89	79
Small red	1082-15R	2	R	G	1811	878	1050	1811	1888	1199	1343	118	94
Small red	1082-22R	2	R	G	1463	784	1058	1418	1780	1241	1287	113	91
Small red	1110-13RY-5	1	R	B	1986	592	1174	1855	1808	1041	1378	121	97
Small red	1119-2-10	1	R	G	1918	681	1278	1732	1942	1018	1480	126	101
Small red	1118-2-3	1	R	B	1859	710	1302	1709	2014	871	1427	128	100
Small red	1118-2-7	1	R	B	1823	725	1180	1534	1987	850	1381	122	97
Small red	1125-1-5	1	R	B	1956	759	1185	1378	2261	1083	1437	127	101
Small red	1128-4	1	R	B	1556	861	1142	1487	1889	1219	1927	117	89
Small red	1145-3-8	1	R	B	1880	689	1131	1483	1820	1276	1388	123	98
Small red	1145-3-8	1	R	B	1886	881	1080	1233	1707	889	1241	108	87
Small red	1152-2-5	1	R	B	1876	681	1078	1157	1696	917	1217	107	86
Small red	1254a-1	1	R	B	1822	657	1074	1129	1486	1025	1216	107	86
Small red	871-16	3	R	BM	1398	530	1088	818	863	795	874	77	61
Spanish brown	Pardina	1	Y	P	1514	845	1241	1144	1220	671	1058	100	74
Spanish brown	1078-13	1	Y	P	1850	795	1324	1477	2138	1187	1480	140	104
Spanish brown	1078-4	1	Y	P	1936	889	1261	1270	2056	952	1381	129	98
Spanish brown	901-1Y	2	Y	P	1832	578	1276	1369	1733	897	1281	121	80
Mean					1848	652	1205	1357	1773	985	1310		92
LSD 0.05					187	100	148	238	138	197			
CV (%)					5.7	9.7	8.1	11.8	6.8	13.8			

Lines in bold type are checks for market class. Numbers in [] indicate number of sites.

Codes for seed characters. Cotyledon colour: Y-yellow; R - red. Seed coat: G - green; M - dark marbled pattern; B - brown; P - Pardina type. NA - not available.

Table 3. Yield performance summary of second year entries in the 2000-2001 Lentil Co-operative Trials "A" in western Canada

Year	Location	Yield in kg/ha										Red lentil		Sp. Brown																	
		A*		Green lentil		A		B.A		A		A		A		A															
		CDC Milestone		1048-8R		1156-2-17		1070-8R		CDC Milestone		PI 468901		Crimson		CDC Blaze		CDC Robln		CDC Redcap		1082-16R		1092-22R		801-1Y					
2000	Preston-(D)	2125	2261	2397	2326	1850	2082	1855	1818	2131	1459	1828	2308	2049	1804																
	Goodele	2690	2900	2798	2220	3042	2309	2615	1998	1927	1750	2474	2213	2647	1904																
	Floral	2532	1981	2381	2207	2803	2091	2105	1993	2054	2057	2067	2216	2033	2149																
	Eirose	2816	2854	2494	2708	2842	2777	2492	2466	2383	2383	2375	3084	2664	2640																
	Carlisle	1811	2174	1895	1438	2046	1572	1512	1431	1748	1505	1658	1542	1513	1804																
	Swift Current	2734	2768	2852	2693	2442	2884	2628	2698	2720	2525	2633	2608	2681	2971																
	Fox Valley	1063	1001	786	937	1215	1004	1209	1022	1054	749	1131	904	857	853																
	Scott	2480	2321	2227	2675	2456	2275	2286	2072	1905	1717	2122	2208	2289	2383																
	Rosheim	1745	2148	1861	2385	2095	1936	1389	1864	1826	1073	1559	1877	1822	2194																
2001	Goodele	1845	1861	2085	2305	2230	1748	1845	1942	1465	1812	1885	1811	1453	1832																
	Eirose	677	782	677	881	870	773	677	638	480	504	676	878	764	578																
	Scott	1373	1405	1382	1457	1238	1146	1373	1145	1268	1189	1133	1050	1058	1278																
	Swift Current	1608	1673	1457	1198	1710	1396	1606	1331	1132	1097	1065	1311	1418	1388																
	Assinibola	2150	1947	945	2336	1808	1857	2150	1831	1537	1492	833	1868	1790	1793																
	Bow Island - (I)	878	1102	1088	1157	929	923	878	1110	922	671	732	1139	1241	897																
	Mean of 15 sites	1902	1924	1828	1929	1965	1794	1831	1725	1605	1466	1612	1782	1739	1790																
	% CDC Milestone	100	101	96	101	103	94	100	94	84	77	85	94	91	94																
	% Crimson								100	99	91	100	112	108																	
		* A - Trial A in both years; B.A. - Trial B in 2000, Trial A in 2001																													
		1086-E-4																													
		CDC Viceroy																													

Table 4. Two year agronomic performance summary for second year entries in the 2000-2001 Lentil Co-operative Trial "A" in western Canada

Market class (MC)	2000 Trial	2001 Trial	Line	Cot. colour	Seed coat	kg/ha	MC check	% of Yield	Milestone	Days to flower	Days to maturity	Height (cm)	Lodging (1-9)	Seed weight g/1000	% seed over >12/84	Anthracnose		[1]	[1]	[1]	[1]	Ascochyta Infection seed %
																2000 field (0-11)	2001 lab Race 1					
Small green	A	A	CDC Milestone	Y	G	1902	100	100	57	89	29	3.6	42	61	8.7	MS	S					2.3
Small green	A	A	1048-8R	Y	G	1828	96	98	56	90	30	3.1	39	57	7.3							1.0
Small green	A	A	1048-8R	Y	G	1928	101	101	58	93	34	2.5	42	71	6.0	MS	S					4.7
Small green	A	A	1066-E-4	Y	G	1924	101	101	57	91	32	3.1	37	33	6.7	R	S					2.0
Small green	A	A	1070-8R	Y	G	1784	94	94	56	91	32	4.4	42	69	7.0							2.0
Medium green	A	A	1156-2-17	Y	G	1865	103	103	54	92	33	2.7	53	88	7.7	MR	S					0.0
Small green	B	A	CDC Milestone	Y	G	1831	100	100	56	88	30	3.1	42	62	8.3							6
Small green	B	A	PI 488901	Y	G	1725	94	94	59	92	37	4.1	41	62	6.7							9.7
Small red	A	A	Crimson	R	B	1605	100	84	56	89	28	6.3	41	48	9.0							28.0
Small red	A	A	CDC Blaze	R	B	1594	99	84	55	90	28	2.2	40	53	7.3							0.0
Small red	A	A	CDC Redcap	R	G	1612	100	85	54	80	31	2.9	39	35	7.7							0.3
Small red	A	A	CDC Robin	R	B	1466	91	77	55	92	31	2.3	32	3	0.7							0.7
Small red	A	A	1062-15R	R	G	1792	112	94	58	94	33	3.2	51	88	7.7							2.3
Small red	A	A	1062-22R	R	G	1739	108	91	57	91	32	4.2	45	87	7.5							1.7
Spanish brown	A	A	901-1Y	Y	P	1790	NA	94	56	80	33	2.9	34	15	7.0							1.3

Lines in bold type are checks for market class. Numbers in [] indicate number of sites.

Pathology ratings: Race 1 - isolate 95B96; Race 9 - isolate 95A8; R - resistant; MR - moderately resistant; MS - moderately susceptible; S - susceptible. 2001 laboratory ratings for selected lines only.

Codes for seed characters. Cotyledon colour: Y-yellow; R - red. Seed coat: G - green; M - dark marbled pattern; B - brown; P - Pardina type.

1066-E-4 CDC Viceroy

U.S. DEPARTMENT OF AGRICULTURE
 AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

**EXHIBIT E
 STATEMENT OF THE BASIS OF OWNERSHIP**

1. NAME OF APPLICANT(S) Cereal Research Centre University of Saskatchewan	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER 1066E - 4	3. VARIETY NAME CDC Viceroy
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 51 Campus Drive Saskatoon, SK S7N 5A8	5. TELEPHONE (Include area code) (306) 966-8195	6. FAX (Include area code) (306) 966-5015
7. PVPO NUMBER 200500301		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain. YES NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. YES NO
 Canada

10. Is the applicant the original owner? YES NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
 YES NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
 YES NO If no, give name of country
 Canada

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

- If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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