Agriculture et Agri-Food Canada Agroalimentaire Canada

Research Branch

Direction générale de la recherche

Potato Gene Resources Newsletter **Potato Research Centre**

Number 11 December 2004

The Story of 'Kifli'

Dr. Jane Seabrook Potato Research Centre Agriculture and Agri-Food Canada

'Kifli' is the name of a fingerling heritage potato received some years ago by the Potato Gene Resources Repository from Seeds of Diversity Canada volunteer, Garrett Pittenger. Kifli is an attractive, smooth-skinned, curved small potato. Fingerling potatoes, of which the Repository has several, are particularly useful as fresh whole potatoes, or as salad potatoes. They generally hold their shape nicely when boiled.

Several years ago a potato breeder from Slovenia, just south of the Austro-Hungarian border, visited the Potato Research Centre in Fredericton. The breeder was interested in heritage potato varieties and Jane Percy provided a tour of the collection. When shown tubers of Kifli the breeder noted that they looked like a variety he was familiar with from Austria.

Searches of the electronic European Cultivated Potato Database http://www.europotato.org/ recently revealed that there is a potato variety 'Somogyi Kifli' which was bred in Hungary. We contacted Dr. Zsolt Polgar, Director of the Potato Research Centre at the Georgikon Faculty of Agriculture at the University of Veszprém in Keszthely, Hungary. Dr. Polgar tells us that the Keszthely Potato Research Centre released Somogyi Kifli in 1960. In Hungarian "kifli" is a term for a crescent-shaped cookie, and indeed the Kifli potato we have is curved rather like a croissant.

Is the heritage potato Kifli the same as Somogyi Kifli? At our request, Dr. Plogar very kindly had some DNA extracted from 'Somogyi Kifli' and sent it to Fredericton. In the lab, Dr. Xiu Qing Li and Muhammad Haroon of the AAFC Potato Research Centre compared the 'Somogyi Kifli' DNA from Hungary with DNA isolated from the Kifli from the Seeds of Diversity Canada collection.

Interestingly, the two DNA samples do not seem to be alike. Maybe a gardener simply named a curved fingerling potato Kifli because it was shaped like a crescent cookie.

Potato Gene Resources Newsletter

The Potato Gene Resources Newsletter is an annual publication of the Potato Gene Resources Repository, Potato Research Centre, Agriculture and Agri-Food Canada. The Newsletter provides information on potato germplasm in the Repository and on issues related to the genetic diversity in the potato. The opinions expressed by authors may not necessarily represent the views of Agriculture and Agri-Food Canada.

The Newsletter may now be accessed through a link on the Potato Research Centre website at http://res2.agr.gc.ca/fredericton/index e.htm.

Le Bulletin est également disponible en français.

To receive the newsletter, please contact:

Jane Percy, Editor, Potato Gene Resources Newsletter

Potato Research Centre

Agriculture and Agri-Food Canada

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Website:

http://res2.agr.gc.ca/fredericton/nb/index f.htm.

We are now checking other fingerling potato varieties in the heritage potato collection to see if there are any similarities. So, stay tuned and when we have results we will let our collaborators know in the next newsletter.





Figure 1. Potato Gene Resources "Kifli" minitubers.

Ten Years of Collaboration Between Potato Gene Resources and Seeds of Diversity Canada

Over the past ten years, Seeds of Diversity Canada (SoDC) has been an integral partner in the identification and preservation of heritage potatoes for Canada's national potato gene bank - the Potato Gene Resources (PGR) Repository at Fredericton.

Garrett Pittenger, past president of SoDC and a heritage potato expert has been our principal liaison with the organization. In 1994, Garrett assisted in our acquisition of heritage potatoes, through his efforts to identify individual SoDC member's potato collections throughout the country and to prioritize clones in need of virus freeing. Much of the heritage potato material being grown year after year by individuals has an accumulated virus load which severely limits plant growth and yield. On the basis of his knowledge of heirloom varieties, Garrett recommended a list of those most in need of virus clean-up and preservation in the Repository. This list of the forty most unique, endangered and desirable varieties, accompanied by detailed descriptions, allowed PGR to rationally establish an heirloom acquisition plan for the Repository.

Early in 1996, PGR was able to obtain seven heritage varieties which had been imported from the Scottish Agriculture Science Agency by Sharon Rempel a board member of the Heritage Seed Program, the forerunner of Seeds of Diversity Canada. These 18th and 19th century varieties were imported for use at historical sites throughout Canada as representative of potatoes grown during those eras. Acquiring these well documented and diverse types of heritage potatoes established the heirloom segment of the PGR collection, which has today grown to forty varieties. The heritage accessions attract 57% of the total requests received by the potato repository.

Garrett Pittenger represented SoDC at a client workshop held in Fredericton in 1997 to identify issues related to the establishment of the Potato Node of Plant Gene Resources of Canada (PGRC). His knowledge and input were valuable during discussions leading to criteria for inclusion, and documentation and evaluation of accessions. Criteria for inclusion of heritage varieties by PGR adopted during the 1997 workshop, were clones of Canadian origin and/or with a long history of Canadian cultivation or some other aspect of historical importance to Canada. These criteria are still in effect today.

In 1997, Garrett provided twenty potato varieties from the priority list for virus freeing therapy, funded by AAFC. In 1999, six more varieties were sent for treatment. (See Table 1.)

Over the years, Garrett has been a frequent contributor of articles to the Potato Gene Resources newsletter. His descriptions of heritage varieties have been valuable in documenting provenance and history. As well they have created an awareness of the diversity of potato varieties and the challenges associated with propagation and maintenance of the crop.

In 2004, Bob Wildfong, president SoDC, and Dr. Ken Richards, Manager of Plant Gene Resources of Canada proposed a new project to add heritage material to Plant Gene Resources of Canada's holdings. The project was accepted for funding under AAFC's MII program and will see an additional 30 heritage varieties added to the Potato repository. Once again the members of SoDC will be instrumental in facilitating the work to locate the heirloom material. Following virus clean-up, SoDC members will participate in field work to evaluate the clones for agronomic characteristics.

The ongoing partnership between the PRC and SoDC Canada will continue to ensure the preservation of important heirloom potato varieties.





Table 1. Heritage Potato Clones Recommended for Preservation in the Potato Gene Resources Repository by SoDC.

Variety	Year	SoDC Source
Fortyfold Lumpers Myatt's Ashleaf Pink Fir Apple Royal Kidney Skerry Blue Yam	1993	Imported by SoDC from the Scotish Agriculture Science Agency via AAFC - La Pocatière, QC
Ruby Pulsiver's Bluenoser	1997	Ruby Pulsiver, NS
Angelina Mahoney's Blue	1997	Angelina Mahoney, NS
Elmer's Blue *	1997	Elmer Hansen, AB
British Columbia Blue	1997	Alex Caron, ON
Calico	1997	Bill Higgins, NS
Cain's Irish Rocks	1997	Alex Caron, ON
Haida	1997	Alex Caron, ON
Robertson's Kidney *	1997	Garrett Pittenger, ON
Marc Warshaw's Quebec	1997	Marc Warshaw, QC
Siberian	1997	Alex Caron, ON
Northern White	1997	Alex Caron, ON
Nova Scotia Blue	1997	Tom Keoughan, NS
Sharon's Blue	1997	Elmer Hansen, AB
Congo	1997	Garrett Pittenger, ON
Rambling Rose	1997	Evelyne Smetaniuk, BC
Slovenian Crescent	1997	Beverly Erlebacher, ON and Betty Cerar, ON

Kifli	1997	Inge Poot, ON
Corne de Mouton	1997	Alex Caron, ON
Austrian Crescent *	1997	Alex Caron, ON
Straight Banana	1997	Evelyne Smetaniuk, BC
Blue Shetland	1997	Elmer Hansen, AB
Jogeva Yellow Estonian	1997	Alex Caron, ON
Mrs. Moehrle's Yellow Fleshed	1997	Alex Caron, ON
Crotte d'Ours	1999	Antoine d'Avignon, QC
La Veine Rose	1999	Antoine d'Avignon, QC
Six Weeks*	1999	Betty Keeler, Saskatchewan

^{*} Varieties still undergoing virus freeing

The text of this article was originally prepared by Jane Percy and Richard Tarn, Potato Gene Resources for a presentation given to Seeds of Diversity Canada by Margie Luffman, Curator, Canadian Clonal Genebank, October 2004

Annual Report 2004 Potato Gene Resources Repository Jane Percy

The Collection

1. Holdings

The Potato Gene Resources Repository contains 119 clones. Of this total, 111 are maintained *in vitro* and 8 as tubers. A full listing of accessions may be found on the attached request form. The following chart shows the percentage of clones in each Repository category.





2. Accessions

Four in vitro clones were added to the Repository in 2004.

 Canso - Canso, a Canadian bred variety, is described in "Canso, A New Potato Variety Highly Resistant to Late Blight", American Potato Journal (APJ) 28:697-698, 1951.

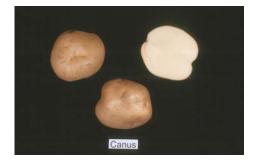
Developed by the Dominion Experimental Station, Fredericton, New Brunswick, the pedigree of Canso is (*Solanum demissum* x Earlaine) backcrossed 6 times to Katahdin. In 1959, Canso was ranked 11th in certified seed production in Canada. The primary objective in the development of this variety was resistance to the common race of late blight. Canso is late maturing and has short elliptical medium thick tubers with shallow eyes. The skin colour is dark cream and the flesh is white. Please see photo of Canso tubers below.



 Canus - Canus, a Canadian Bred variety, is described in "Canus: A New Potato Variety Adapted to Alberta and Other Sections of the Dominion of Canada", APJ 26: 326-330, 1949.

Developed by the U.S.D.A, and released from Alberta, Canada, in 1949, Canus was developed from a cross of Greeley seedling No. 9-11 x USDA Seedling No. 24642. Canus has

medium early maturity. The tubers are round-oblong, somewhat flattened with shallow eyes, smooth creamy coloured skin and white flesh. Canus bakes very well. Please see photo of Canus tubers below.



 Garnet Chili - Garnet Chili, a heritage variety, is described in "Descriptions of and key to American potato varieties." USDA Circ. 741, 57 p., 1946.

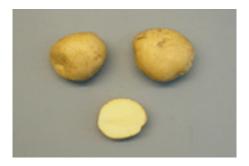
Garnet Chili originated with Rev.C.E. Goodrich of New York, in 1853, from true seed of Rough Purple Chili. Late maturing, Garnet Chili has round tubers with red skin, medium deep eyes and white flesh. Garnet Chili is a parent of many commercial varieties including Acadia Russet, AC Chaleur, AC Novachip, Atlantic, Désirée, Green Mountain, Irish Cobbler, Katahdin, Kennebec, Red Pontiac, Russet Burbank, Sebago, Shepody, and Yukon Gold, among others. ^{1,2} Please see photo of Garnet Chili tubers below.



 Houma - Houma, a heritage variety, is described in "The Houma potato: a new variety" U.S.D.A. Circ. 420, 4p. 1936



Houma was developed by the U.S.D.A. and released in Louisiana in 1936. It resulted from a cross of Charles Downing x Katahdin. Houma is late maturing, has roundish tubers with smooth or slightly flaked skin, medium deep to shallow eyes and white flesh. Houma is resistant to wart and Verticillium wilt (AA). Please see photo of Houma minitubers below.



 ¹ 1959 Potato Handbook, Potato Varieties Issue, Published by The Potato Association of America, New Brunswick, New Jersey Volume IV, 64p., 1959.
 ² DeJong, H. Garnet Chili- An International Heritage Potato Variety. Potato Gene Resources Newsletter, Number 2, 1-2, 1995.

- White Pontiac White Pontiac was removed as an accession of the Repository.
- An MII between Plant Gene Resources of Canada and Seeds of Diversity Canada will see 30 heritage varieties entered into virus freeing programs for eventual addition to the Repository. Varieties will also be evaluated for agronomic characteristics.

3. Evaluations

• Nine of the most recently received heritage varieties have been grown in an evaluation trial at the Potato Research Centre. The evaluation plot consisted of two replications of fifteen hills of the following varieties: Columbia Russet, Corne de Mouton, Crotte d'Ours, La Veine Rose, Marc Warshaw's Quebec, Northern White, Siberian, Straight Banana, and Chieftain. The varieties were evaluated for agronomic characteristics when harvested. These varieties will also be evaluated for boil and bake cooking quality over

- the winter. Appearance, texture, flavor, sloughing and discoloration will be scored.
- One hundred and two PGR clones were challenged with PVX and PVY during greenhouse tests to observe resistance to those diseases. Brian King, a summer student working with Donna Wilson, carried out the testing. Of the 102 clones, 78 showed positive results for PVX and 77 for PVY. Clones with negative or indistinct results will be re-tested this winter.
- Re-testing of four heritage potato varieties (Corne de Mouton, Haida, Northern White and Siberian) which had negative wart results in 2003 was conducted in Newfoundland by Steve Wood, CFIA.
- A number of PGR clients send yearly reports of yield, cooking quality and disease reactions in their particular regions of North America.
- Heritage potato variety fingerprints are being compared using improved DNA fingerprinting protocols developed by Dr. Xui-Qing Li at the Potato Research Centre, AAFC.
- All evaluations will be entered into the Repository database and into GRIN-CA, and reported in future issues of the Potato Gene Resources newsletter. Several of the varieties have now been evaluated over a 3-year period.

4. Management

- Passport data for all current PGR accessions has been added to the Genetic Resources Information Network -Canadian Version (GRIN - CA). Work continues on the addition of photos of the accessions as well as descriptors and evaluation data. GRIN - CA may be accessed through the Plant Gene Resources of Canada web site http://pgrc3.agr.ca/.
- Disease testing of new in vitro accessions and clones which have been maintained in vitro for five years was completed. Forty-five clones were grown in the greenhouse and tested twice in 2004. All clones were negative for PVA, PLRV, PotLV, PVS, PVX and PVY. Results for PSTV and BRR are pending. Extra minitubers from the greenhouse growout will be offered to PGR clients in the spring of 2005.
- In vitro clones were screened for bacterial and fungal contamination using Potato Dextrose Broth and Richardson's Broth, twice during 2004. All clones currently in the Repository were negative for these contaminants.



- Protocols for microtuber production are being investigated for all 111 in vitro clones in the Repository. When refined these protocols will produce microtubers which will be stored at the Plant Gene Resources of Canada, Saskatoon, SK as a backup to the Repository in Fredericton. Microtubers remain dormant for several months, making them an ideal system for storing germplasm.
- Discussions are underway at the Potato Research
 Centre to consolidate the Repository growth
 cabinets, in a room that satisfies the phytosanitary
 requirements of the collection. Having a separate
 room for equipment which maintains the *in vitro*clones would increase the security of the Repository
 and limit exposure to disease and insects.

5. Requests to the Repository

 Thirty-nine requests for 496 clones were received in 2004. Of this number, 91 clones were in vitro, 385 clones were field grown tubers and 20 clones were greenhouse grown minitubers. The intended use of potato clones requested from Potato Gene Resources in 2004 are tabulated below.

Purpose of request	Requests	Clones
Breeding	4	78
Research	14	182
Heritage demonstration	8	170
Heritage evaluation	12	54
Heritage preservation	1	12
Total	39	496

- Seventeen requests were received from New Brunswick, 5 from Ontario, 4 from Quebec, 2 each from Alberta, Nova Scotia, Newfoundland and Prince Edward Island and 1 from Saskatchewan. There were 4 requests from the USA.
- Corne de Mouton and Fortyfold were the most requested clones in 2004.

Five Year Compilation of Requests to Potato Gene Resources 2000 -2004

Year	Total Requests	Requests for breeding or research	Requests for heritage evaluation or preservation	Total clones provided	Clones provided as minitubers/tubers	Clones provided <i>in vitro</i>
2000	25	9	16	142	93	49
2001	22	10	12	144	76	68
2002	32	13	19	218	148	70
2003	29	12	17	232	171	61
2004	39	20	19	496	405	91
5 year total	147	64	83	1232	893	339



Repository Items of Interest

Communication

- Dr. Ken Richards, Research Manager, Plant Gene Resources Canada, AAFC, Saskatoon, presented a seminar entitled "Genetic Resource Conservation in Canada", at the Potato Research Centre in January.
- Dr. Richard Tarn presented a talk to the Expert Committee on Plant and Microbial Genetic Resources on the Potato Gene Resources Repository in January.
- The Potato Gene Resources Repository was included in an information sheet produced by the Potato Breeding Program, which highlighted the potential health benefits of potatoes with coloured flesh. Particular mention was made of the blue fleshed heritage cultivars in the collection such as Congo and MacIntosh Black. A sidebar entitled "Maintaining Biodiversity" explained the mandate of the Repository.
- CBC Television (Fredericton) Reporter, Roy
 Gjelstad, visited the Potato Research Centre in
 February to tape a story about the Potato Gene
 Resources Repository, heritage cultivars and
 research on anthocyanins. The story appeared on
 the evening news broadcast.
- CBC Radio Information Morning Reporter, Jennifer Sweet, interviewed Richard Tarn, Curator, about the Repository and scientific investigations into the health benefits of blue potatoes.
- Jacques Giguères of La Semaine Verte, Radio-Canada TV, visited the Potato Research Centre in February to film a program. Extraction and measurement of antioxidants from potatoes, germplasm from the Potato Gene Resources Repository and the Potato Breeding program, cooking quality and new directions in potato breeding were highlighted.
- Requests for information about the Repository, the availability of clones, clone descriptions and pedigrees, and techniques for handling *in vitro* material were received throughout the year.
- The annual Potato Gene Resources newsletter has a distribution of 236.
- Newsletter #10 was listed on the weekly checklist of the Depository Services Program, Communications Canada, June 4, 2004. It may be viewed at http://publications.gc.ca in Weekly Checklist 04-23 (June 4, 2004) Departmental

- Publications Agriculture and Agri-Food Canada, Research Branch . Future newsletters will also be published in the Weekly Checklist.
- The newsletter may now be accessed through a link on the Potato Research Centre website at http://res2.agr.gc.ca/fredericton/index e.htm.

Displays

- The Fredericton Botanic Garden Association sponsored a Seedy Saturday in conjunction with Seeds of Diversity Canada in February. Dr. Jane Seabrook co-ordinated a display of material from Potato Gene Resources.
- Potato Gene Resources clones, were displayed during the Potato Breeding 2004 Open House held in February to promote new selections to industry. *In vitro* potato plants as well as minitubers and field tubers were displayed. Potato Gene Resources Repository newsletters with request forms and a handout describing the individual clones were also available.
- "Biodiversity: Food, Water and Health for All" was the focus of the 2004 International Day for Biological Diversity. Potatoes from the Repository were displayed at the Canadian Museum of Nature in Ottawa as part of AAFC's contribution to a multi-departmental exhibit marking the day on May 22. Nineteen potato varieties, both tuber and in vitro samples, chosen to reflect the diversity of the Potato Gene Resources holdings were shown. A hand out was also available. Don Leger, Science Communications Advisor, Biodiversity Theme (Environmental Health National Program) and Brenda Kostiuk, Assistant Manager, Biodiversity Knowledge Information Network (BKIN) planned and co-ordinated the activities. Please see photo below.



 Seventeen PGR clones were planted in the demonstration plot at the Benton Ridge Potato Breeding Substation to provide tubers for displays.



Visitors

- The Expert Committee on Plant and Microbial Genetic Resources held their annual meeting at the Potato Research Centre in January. While here, committee members were also able to visit PRC scientists and view the facilities of the Potato Gene Resources Repository as well as a display of tubers. The group also met with Dale Simpson, Manager of the National Forest Genetic Resources Centre located at the Canadian Forest Service, and toured the facility.
- Edward Percy, a Grade 9 student at Fredericton High School, visited the Repository for "Take Our Kids to Work" on November 3. Edward participated in activities related to the work of the Repository. He was also able to visit the computing facility, entomology, potato breeding lab and greenhouses, and to meet with Dr. Richard Tarn.

Travel

- Jane Percy attended the Annual Workshop of the Atlantic Plant Tissue Culture and Biotechnology Association/2004 Meeting of the Canadian Section of the International Association For Plant Tissue Culture and Biotechnology held at NSAC, Truro, NS in August.
- Richard Tarn attended the annual meeting of NRSP-6 at Sturgeon Bay, Wisconsin, USA in June.
- Jane Percy attended a meeting of the genetic resources group with Theme Leader, Lianne Dwyer, in Saskatoon in December.

The Repository and the Seed Potato System

Richard Tarn
Curator
Potato Gene Resources Repository
Agriculture and Agri-Food Canada
Potato Research Centre

The Potato Gene Resources Repository provides *in vitro* plantlets and greenhouse or field tubers for breeding, research and heritage preservation. While extensively tested for freedom from disease, the plantlets and tubers distributed by the Potato Gene Resources Repository are produced outside the Canadian Seed Certification System and are not eligible for Certification.

The Canadian Seed Potato Certification System operates under the Seed Act and its Regulations.

Certification begins with tested plantlets established *in vitro* in a facility accredited for this task by the Canadian Food Inspection Agency. The plantlets are used to produce greenhouse tubers which then go to the field in a limited generation system, at each step meeting strict standards specified in the Regulations.

The Potato Gene Resources Repository is not accredited for seed production by the CFIA.

Potato Research Centre Website

The Potato Research Centre website: http://res2.agr.gc.ca/fredericton/index_e.htm
offers an overview of the mandate, resources, and achievements of the Centre. The research studies being conducted at the Centre as well as the staff associated with those studies are highlighted. Links to the Potato Research Network and to other agriculture and potato related websites are also available.

Plant Gene Resources of Canada

Canada's Plant Germplasm System is a network of centres and people dedicated to preserving the genetic diversity of crop plants, their wild relatives and plants present and unique in the Canadian biodiversity. The system plays a significant part of Agriculture and Agri-Food Canada's commitment to the Canadian Biodiversity Strategy in response to the Convention on Biological Diversity.

The Plant Gene Resources of Canada (PGRC) website located at http://pgrc3.agr.ca/index_e.htm includes information on PCRC and the multi-nodal system of germplasm conservation in Canada as well as opportunities to search for germplasm on the Genetic Resources Information Network-Canadian version (GRIN-CA).

Dr. Ken Richards, Research Manager, Plant Gene Resources of Canada, may be contacted at richardsk@agr.gc.ca

Personnel of the Potato Gene Resources Repository Potato Research Centre

Richard Tarn - Potato Breeder
Agnes Murphy - Plant Pathologist
Trudy Dalton - Potato Breeding Technician
Jane Percy - Potato Gene Resources Technician
Donna Wilson - Plant Pathology Technician
Andrew Gardner - Supervisor
Steven Allaby - Greenhouse Person
Danny Burnett - Greenhouse Person
Sylvia Holder - Greenhouse Person



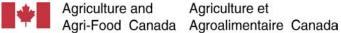
POTATO RESEARCH CENTRE POTATO GENE RESOURCES REPOSITORY – AVAILABLE CLONES, DECEMBER 2004

Clones are available as *in vitro* plants, as tubers (*), or as either *in vitro* plants or tubers (†) as indicated. Two test tubes or two tubers (as available) of each clone will be shipped at the cost of client. Clones have been tested and found negative for PVA, PLRV, PotLV, PVS, PVX, PVY, PSTV, BRR and bacterial contamination.

CLONE	PURPOSE	CLONE	PURPOSE
ABNAKI*	CK	K113-1	BR
AC BELMONT	CC	KESWICK	CC
AC BLUE PRIDE	CC	KIFLI	HV
AC BRADOR	CC/CK	LA VEINE ROSE/LA	HV
AC CHALEUR	CC	BELLE ROSE	
AC DOMINO	CC	LENAPE	BR
AC NOVACHIP	CC	LIBERTAS*	CK
AC RED ISLAND	CC	LUMPERS	HV
ACADIA RUSSET	CC	MacINTOSH BLACK	HV
ANGELINA MAHONEY'S	HV	MANOTA*	CC
BLUE		MARC WARSHAW'S	HV
ANSON	CC	QUEBEC	
AVON	CC/CK	MCINTYRE BLUE	HV
BANANA	HV	MIRTON PEARL	CC
BATOCHE	CC	MRS. MOEHRLE'S	HV
BELLEISLE	CC	YELLOW FLESHED	
BLUE MAC	CC	MOURASKA	CC
BLUE SHETLAND	HV	MYATT'S ASHLEAF	HV
BRIGUS	CC	NRBK 01 to NRBK 11	CK
BRITISH COLUMBIA	HV	NIPIGON	CC
BLUE	1.157	NISKA	CC
CAIN'S IRISH ROCKS	HV	NORTHERN WHITE	HV HV
CALICO	HV	NOVA SCOTIA BLUE OAC ROYAL GOLD	CC
CANDY CANE CANSO	HV CC	OAC RUBY GOLD	CC
CANUS	CC	OAC ROBT GOLD	CC
CARIBE	CC	PINK FIR APPLE	HV
CARIBOO	CC	PINK PEARL	CC
CARLTON	CC	PURPLE CHIEF	HV
CHINOOK	CC	RAMBLING ROSE	HV
CONESTOGA	CC	RARITAN	CC
CONGO	HV	RED GOLD	CC
CORNE DE MOUTON	HV	RICHTER'S JUBEL	CK
CROTTE D'OURS	HV	RIDEAU	CC
CUPIDS	CC	RIVER JOHN BLUE	HV
DONNA	CC	ROSE GOLD	CC
DORITA*	CK	ROYAL KIDNEY	HV
ERAMOSA	CC	RUBY PULSIVER'S	HV
F58050	BR	BLUENOSER	
F66041	BR	SABLE	CC
F79055	CK	SAGINAW GOLD	CC
F79070	CK	SHARON'S BLUE	HV
FINGERLING	HV	SHEPODY	CC
FORTYFOLD	HV	SIBERIAN	HV
FUNDY	CC	SIMCOE	CC
GARNET CHILI	HV	SKERRY BLUE	HV
GRAND FALLS	CC	SLOVENIAN CRESCENT	HV
GREEN MOUNTAIN*	CK	STRAIGHT BANANA	HV
HAIDA	HV	TOBIQUE TRENT	CC
HOUMA	HV		
HINDENBURG*	CK CC	USDA41956* USDA X96-56	BR/CK BR
HUNTER HURON	CC	WHITE RURAL NEW	HV
JEMSEG	CC/CK	YORKER*	1 1 V
JOGEVA YELLOW	HV	YAM	HV
ESTONIAN	11 V	YORK	CC
LOTOMAN		YUKON GOLD	CC
		I SILOIT GOLD	

<u>CODE FOR PURPOSE</u> – BR - Breeding Clone; CC - Canadian Bred; CK - Disease Resistance Check; GL - Genetic Clone; HV - Heritage Variety; *Available only as tubers; †Available *in vitro* or as tubers

More detailed information on clone characteristics, including disease reactions, is available on request.



Research

Branch

Agriculture et

Direction générale de la recherche

POTATO RESEARCH CENTRE **POTATO GENE RESOURCES**

REPOSITORY REQUEST FORM

Name	Date	
Organization		
Mailing address		
	Postal Code	Country
Shipping address		
	Postal Code	Country
Telephone		
Fax		
have any questions or concerr (506) 452-3160. Clones requested: (Pleat 1	ns about your personal information,	spond to your request for tubers or plants. If you please call Jane Percy, Potato Gene Resources isted on reverse)
(Please list additional	clones on a separate sheet).
Preferred date of receipt	: (Please allow at least 5 we	eks)
		use of the requested clones (research,
☐ Clone descriptions re	•	required?
	d if Phytosanitary Certificate ourier account number <u>or</u> alt	required? ernate shipping arrangements

Please send this form to:

Potato Gene Resources Repository Agriculture and Agri-Food Canada Potato Research Centre, P.O. Box 20280 Fredericton, New Brunswick Canada E3B 4Z7

Jane Percy Attention: Telephone: (506) 452-3160 Facsimile: (506) 452-3316 E Mail: percyj@agr.gc.ca

