

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pure Line Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED 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 *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT 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 USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (T. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEA

'Kodiak'

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 this seventh day of June in the year of our Lord one thousand nine hundred and seventy-seven

Attest:

S. J. Rollins

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Bob Dwyer
Secretary of Agriculture



**ASSIGNMENT OF CERTIFICATES PLANT VARIETY PROTECTION
AS COLLATERAL SECURITY**

PURE LINE SEEDS, INC., a Washington corporation (hereinafter "Borrower"), for valuable consideration, receipt of which is acknowledged, hereby assigns and transfers, for collateral security purposes, to U.S. BANK OF WASHINGTON, NATIONAL ASSOCIATION (hereinafter "Bank"), and grants to Bank a security interest in all of Borrower's right, title and interest in, to and under the following Certificates of Plant Variety Protection issued to Borrower by the United States Department of Agriculture, Agriculture Marketing Service, Plant Variety Protection Office:

Plant Variety No.	Crop Kind	Name of Variety	Applicant	Status, All Occs	Cert. Issue Date	Record:
770002	Pea	Banff	Pure Line Seeds	I	6/7/77	696
7700023	Pea	Kodiak	Pure Line Seeds	I	6/7/77	697
7900099	Pea	Tahoe	Pure Line Seeds	I	1/2/80	991
8200186	Pea	Sundance	Pure Line Seeds	I	10/27/83	1541
8300015	Pea	Arctic	Pure Line Seeds	I	3/26/84	1561
8400031	Pea	Misty	Pure Line Seeds	I	12/21/84	1756
8500041	Pea	Sunfire	Pure Line Seeds	I	12/27/85	1923
8500042	Pea	Early Sweet 41	Pure Line Seeds	I	10/31/85	1924
8500043	Pea	Bold	Pure Line Seeds	I	10/31/85	1925
8900065	Pea	Sun-Up	Pure Line Seeds	I	3/29/91	2792
8900067	Pea	Sentry	Pure Line Seeds	I	7/31/19	2794

Together with all extensions and renewals of the foregoing Certificates, together with all goodwill associated with said Certificates and together with all proceeds thereof regardless of the form thereof and however evidenced. The foregoing Certificates of Plant Variety Protection and related rights and proceeds are hereinafter referred to as "the Collateral."

Borrower further agrees that its assignment of and grant of a security interest in the Collateral shall be subject to and governed by the following terms and conditions:

- 1. INDEBTEDNESS SECURED.** The assignment and security interest granted above shall secure all past, present and future indebtedness of Borrower to Bank, including all interest thereon, whether direct or indirect, absolute or contingent, including, but not limited to, indebtedness

EXHIBIT A

Origin and Breeding History of the Variety

KODIAK

~~Freezer 50~~ originated from a hand pollinated cross between Early Perfection 3019 and B 104-3-1. Early Perfection 3019 is a 68 day canning perfection which has some tolerance to Fusarium Root Rot and is used by some food processors in the United States. B 104-3-1 is a line of peas developed at Oregon State University by Dr. James Baggett and is resistant to Enation Mosaic Virus and Powdery Mildew. It also possesses some tolerance to Western Pea Streak.

This cross was made in 1963 at Moscow, Idaho in trial grounds operated by Pure Line Seeds. Selections of this variety were made in the F2 to F7 generations and the genetic make-up of the plant was stabilized in the F6 generation. This variety has been tested in small field tests and small plots in Oregon, Washington, Wisconsin and in England.

This variety throws a tall slender rogue which begins to appear soon after bloom stage and is 30% or more taller than the main crop. The frequency of this rogue is one in 90,000 plants.

EXHIBIT B

~~Freezer 50~~ ^{KODIAK} resembles Dark Skin Perfection in most respects, but does have various differences. It is approximately 1 - 2 days earlier than Dark Skin Perfection in reaching 100 tenderometer. In reaching 100 tenderometer the vine height of ~~Freezer 50~~ ^{KODIAK} averaged 68 cm. compared with 76 cm. for Dark Skin Perfection at Mt. Vernon, Washington and 28 percent shorter in height in tests conducted in England. In these same tests ~~Freezer 50~~ ^{KODIAK} had first bloom on the 14th node compared to Dark Skin Perfection, on the 15th node.

The primary novelty item would be ~~Freezer 50~~ ^{KODIAK} is quite resistant to Enation Mosaic Virus and had tolerance to Powdery Mildew and Western Streak while Dark Skin Perfection has none of these resistances. In comparative tests conducted by Dr. Donald Hagedorn at Oregon State University ~~Freezer 50~~ ^{KODIAK} had a higher degree of resistance than the original resistant variety Perfected Freezer 60.

The quality of ~~Freezer 50~~ ^{KODIAK} is excellent as well as its yield potential. In replicated yield tests it has proven superior to Aspen and Dark Skin Perfection.

EXHIBIT B (ADDENDUM)

1975 Results of Unilever Research conducted by Gordon R. Whittington

Variety	Plant Stand (per M ²)	Yield T/ha	Pea Size % < 9 MM ✓	Pea/Vine Ratio	Vine Length (CMs) ✓	Maturity (days ± DSP) ✓
Freezer 50 KODIAK	68.7	2.10	74.1	13.6	34	-2
D. S. Perfection	61.2	1.65	26.9	16.6	47	0

1974 Results Washington Agricultural Experiment Station; Mt. Vernon, Washington by Wilbur C. Anderson

Variety	Planting Date	Plant Stand per M	Vine Ht. CM ✓	Vine Wt. grams	Nodes To First Bloom ✓	Days To 100 Tend. ✓
Freezer 50 KODIAK	5-3	20	66	256	14	86
	5-17	17	70	244	14	80
D. S. Perfection	5-3	20	75	262	15	88
	5-17	20	77	294	15	80

Cultivar Sieve Size Distribution

Variety	% Sieve Size Distribution					Ave. Sieve Size
	1	2	3	4	5+	
Freezer 50 KODIAK	0	1	7	18	74	4.65
D. S. Perfection	1	3	8	18	70	4.53

FORM GR-470-14
(5-15-74)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782
OBJECTIVE DESCRIPTION OF VARIETY
PEA (*PISUM SATIVUM*)

EXHIBIT C
(Pea)

NAME OF APPLICANT(S) Pure Line Seeds, Inc.	VARIETY NAME OR TEMPORARY DESIGNATION KODIAK FREEZER 50
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Box 8866 Moscow, Idaho 83843	FOR OFFICIAL USE ONLY PVPO NUMBER 7700023

Place the appropriate number that describes the varietal character in the boxes below.
Place a zero in first box (e.g., 089 or 09) when number is either 99 or less or 9 or less.

1. TYPE:

1 = GARDEN 2 = FIELD 3 = EDIBLE-PODDED

2. MATURITY:

Node number of first bloom: 0 6 8 No. of days to processing 1 5 4 0 Heat Units.

0 2 No. of days Earlier than 4 1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL

No. of days Later than 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

3. PLANT HEIGHT:

0 7 2 CM. HIGH

0 9 Cm. Shorter than 2 } 1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL

Cm. Taller than } 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

4. VINE:

1 Habit: 1 = DETERMINATE 2 = INDETERMINATE 2 Stockiness: 1 = SLIM (Alaska) 3 = HEAVY (Alderman)
2 = MEDIUM (Thomas Laxton WR)

2 Branching: 1 = NONE (Alaska) 2 - 1-2 BRANCHES (Little Marvel) 3 = MORE THAN 2 BRANCHES (Dwarf Gray Sugar)

2 Internodes: 1 = STRAIGHT 2 = ZIG ZAG 1 9 NUMBER OF NODES

5. LEAFLETS:

3 Color: 1 = LIGHT GREEN (Alaska WR) 2 = MED. GREEN (Thomas Laxton WR) 3 = DARK GREEN (Alderman)
4 = OTHER (Specify)

3 Wax: 1 = NONE 2 = LIGHT 3 = MEDIUM 4 = HEAVY 1 1 = NOT MARBLED 2 = MARBLED (Alaska)

3 Number of leaflet pairs: 1 = NOT PAIRED 2 = ONE 3 = TWO 4 = THREE OR MORE

6. STIPULES:

2 1 = LACKING 2 = PRESENT 1 1 = NOT CLASPING 2 = CLASPING

2 1 = NOT MARBLED 2 = MARBLED 2 Size (Compared with leaflets): 1 = SMALLER 2 = SAME
3 = LARGER

1 Color (Compared with leaflets): 1 = LIGHTER 2 = SAME 3 = DARKER

7. FLOWER COLOR:

1 VENATION 1 STANDARD 1 WING 1 KEEL } 1 = WHITE 2 = GREENISH 3 = LAVENDER
4 = PURPLE 5 = RED
6 = OTHER (Specify)

00005

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1a. TEMPORARY DESIGNATION OF VARIETY Freezer 50 KODIAK 7/5		1b. VARIETY NAME		FOR OFFICIAL USE ONLY	
				PV NUMBER 7700023	
2. KIND NAME Pea 5/10/77		3. GENUS AND SPECIES NAME Pisum sativum		FILING DATE 12-28-76 TIME 3:15 A.M. P.M.	
4. FAMILY NAME (BOTANICAL) Leguminosae		5. DATE OF DETERMINATION December 3, 1976		FEE RECEIVED \$ 250.00 DATE 12-28-76	
				\$ 250.00 1-24-77	
				\$ 250.00 5-9-77	
6. NAME OF APPLICANT(S) Pure Line Seeds, Inc.		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Box 8866 Moscow, Idaho 83843		8. TELEPHONE AREA CODE AND NUMBER 208-882-4422	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) corporation			10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION Washington 1948		11. DATE OF INCORPORATION 1948

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

Richard D. Williams
Pure Line Seeds, Inc.
Box 8866
Moscow, Idaho 83843

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- 13B. Exhibit B, Novelty Statement.
- 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- 13D. Exhibit D, Additional Description of the Variety.

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? (See Section 83(a). (If "Yes," answer 14B and 14C below.) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
14B. Does the applicant(s) specify that this variety be limited as to number of generations? <input type="checkbox"/> YES <input type="checkbox"/> NO	14C. If "Yes," to 14B, how many generations of production beyond breeder seed? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED

15. Does the applicant(s) agree to the publication of his/her (their) name(s) and address in the Official Journal? YES NO

16. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

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

December 20, 1976
(DATE)

Richard D. Williams
(SIGNATURE OF APPLICANT)

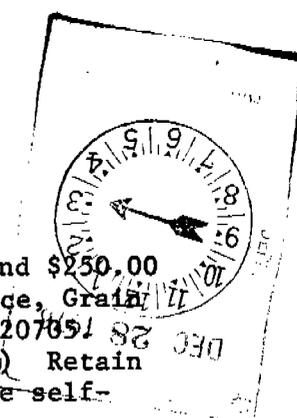
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(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

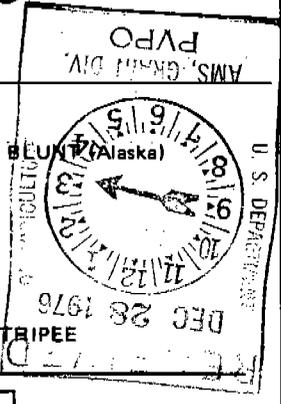
GENERAL: Send an original copy of the application, exhibits and \$250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, National Agricultural Library, Beltsville, Maryland 20705. (See Section 180.175 of the regulations and rules of practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.



ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in Section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a 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), the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4), evidence of stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one 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 differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form for all characteristics, for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe; such as; plant habit, plant color, disease resistance, etc.
- 14A 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 his affirmative decision after the variety has either been sold and so labeled or published or the certificate has been issued. However, if the applicant specifies "NO", he may change his choice. (See Section 180.15 of the Regulations and Rules of Practice.)

77-23



8. PODS:

Shape: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED 1 2 End: 1 = POINTED (Alderman) 2 = BLUNT (Alaska) 2

Color: 1 = LIGHT GREEN (Alaska WR) 2 = MEDIUM GREEN 3 = DARK GREEN (Alderman) 3 4 = OTHER (Specify) _____

Surface: 1 = SMOOTH 2 = ROUGH 1 2 Surface: 1 = SHINY 2 = DULL 2

Borne: 1 = SINGLE 2 = DOUBLE 3 = SINGLE AND DOUBLE 4 = SINGLE, DOUBLE, & TRIPLE 3 5 = DOUBLE & TRIPLE 6 = TRIPLE 7 = OTHER (Specify) _____

0 9 CM. LENGTH 2 7 MM. WIDTH (Between sutures) 0 8 NO. SEEDS PER POD

9. SEEDS (95-100 Tenderometer):

Color: 1 = LIGHT GREEN 2 = GREEN 3 = DARK GREEN 4 = OTHER (Specify) _____ 3

Seive: %

1	2	3	4	5	6	7	8	AVERAGE
<input type="checkbox"/> 0 <input type="checkbox"/> 1	<input type="checkbox"/> 0 <input type="checkbox"/> 3	<input type="checkbox"/> 0 <input type="checkbox"/> 7	<input type="checkbox"/> 1 <input type="checkbox"/> 8	<input type="checkbox"/> 4 <input type="checkbox"/> 2	<input type="checkbox"/> 2 <input type="checkbox"/> 6	<input type="checkbox"/> 0 <input type="checkbox"/> 3	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> 4 <input type="checkbox"/> 8 <input type="checkbox"/> 7

SEEDS (Dry, Mature):

Shape: 1 = FLATTENED 2 = ANGULAR 3 = OVAL 4 = ROUNDED 2

Surface: 1 = SMOOTH 2 = DIMPLED 3 = WRINKLED 3 Surface: 1 = SHINY 2 = DULL 1

Color Pattern: 1 = MONOCOLOR 2 = MOTTLED 3 = STRIPED 4 = DOTTED 1

Primary Color: 1 = CREAMY-WHITE 2 = CREAM & GREEN 3 = LIGHT GREEN 4 = MEDIUM GREEN 5 = DARK GREEN 6 = BLUE-GREEN 7 = YELLOW 8 = BROWN 9 = RED 5

Secondary Color: 10 = GRAY 11 = BLACK 2

Hilum Floor Color: 1 = WHITE 2 = TAN 3 = BLACK 1 Cotyledon Color: 1 = GREEN 2 = YELLOW 3 = ORANGE 1

2 4 GRAMS PER 100 SEEDS

10. DISEASE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

<input type="checkbox"/> 2 FUSARIUM WILT	<input type="checkbox"/> 0 NEAR-WILT	<input type="checkbox"/> 0 DOWNY MILDEW
<input type="checkbox"/> 0 ASCOCHYTA BLIGHT	<input type="checkbox"/> 2 POWDERY MILDEW	<input type="checkbox"/> 0 BACTERIAL BLIGHT
<input type="checkbox"/> 0 MOSAIC	<input type="checkbox"/> 2 PEA ENATION MOSAIC	<input type="checkbox"/> 0 YELLOW BEAN MOSAIC
<input type="checkbox"/> OTHER (Specify) _____		

11. INSECT: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

1 APHIDS OTHER (Specify) _____

12. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness 7710014	Dark Skin Perfection	Fresh Seed Color	Dark Skin Perfection
Leaf Color	Dark Skin Perfection	Mature Seed Color	Dark Skin Perfection
Pod Color	Dark Skin Perfection	Seed Shape	Dark Skin Perfection
Pod Shape	Dark Skin Perfection	Plant Habit	Early Frosty 731 6076

COMMENTS:

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