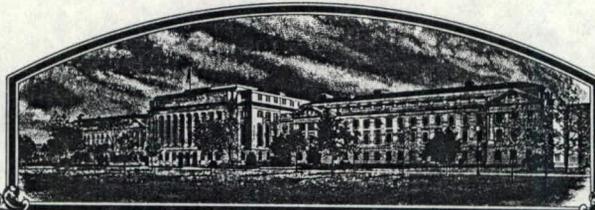


No.

850068



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Wilbur-Ellis Co., Seed Division

Whereas, THERE HAS BEEN PRESENTED TO THE

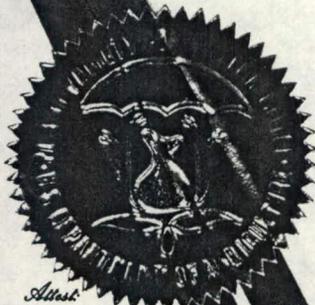
Secretary of Agriculture

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 *eighteen* 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, 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 (AT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

'Tanta'



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 30th day of April in the year of our Lord one thousand nine hundred and eighty-six.

Attest:
Kenneth
Commissioner
Plant Variety Protection
Agricultural Marketing Service

Richard E. Lyng
Secretary of Agriculture



1953

U.S. DEPARTMENT OF AGRICULTURE
 AGRICULTURAL MARKETING SERVICE
 WAREHOUSE & SEED DIVISION

FORM APPROVED: OMB NO. 0581-0055

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. 2426).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

1. NAME OF APPLICANT(S) WILBUR-ELLIS COMPANY, SEED DIVISION		2. TEMPORARY DESIGNATION PVS 295-82-5	3. VARIETY NAME TANTA
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) E. 12001 EMPIRE AVE. SPOKANE, WA 99206		5. PHONE (Include area code) 152 370 -TELEX (509) 922-1774-PHONE	FOR OFFICIAL USE ONLY PVPO NUMBER 8500068
6. GENUS AND SPECIES NAME PHASEOLUS VULGARIS	7. FAMILY NAME (Botanical) LEGUMINOSAE		FILING DATE 2/21/85 TIME 2:30 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.
8. KIND NAME GARDEN BEAN	9. DATE OF DETERMINATION JULY 24, 1984		FEE RECEIVED AMOUNT FOR FILING \$ 1,800 DATE 2/21/85 AMOUNT FOR CERTIFICATE \$ 200 DATE 3/31/86
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) CORPORATION			
11. IF INCORPORATED, GIVE STATE OF INCORPORATION CALIFORNIA			12. DATE OF INCORPORATION 1924
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS FLOYD A WEEMS WILBUR-ELLIS COMPANY, SEED DIVISION E. 12001 EMPIRE AVE. SPOKANE, WA 99206 PHONE (Include area code): (509) 922-1774			
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED			
a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)		c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)	
b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement		d. <input type="checkbox"/> Exhibit D, Additional Description of the Variety	
15. 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) of the Plant Variety Protection Act.) <input checked="" type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input checked="" type="checkbox"/> No <i>re appl. letter of 2/22/85 classroom</i>			
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> Foundation <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified	
18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S.? UNITED KINGDOM - 1984			<input checked="" type="checkbox"/> Yes (If "Yes," give date) 1985 <input type="checkbox"/> No
19. HAS THE VARIETY BEEN OFFERED FOR SALE OR MARKETED IN THE U.S. OR OTHER COUNTRIES? NONE			<input type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input checked="" type="checkbox"/> No
20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request 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 Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF APPLICANT <i>Floyd A. Weems</i>		RESEARCH DIRECTOR	DATE DECEMBER 20, 1984
SIGNATURE OF APPLICANT FOR AND IN BEHALF OF WILBUR-ELLIS COMPANY, SEED DIVISION			DATE

INSTRUCTIONS

General: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$1,800 fee (\$200 filing fee and \$1,600 examination fee) to U.S. Department of Agriculture, Agricultural Marketing Service, Warehouse and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, 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

- 9 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.
- 14a 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 uniformity and stability.
- 14b 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 are clear differences; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 14c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 14d 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.
- 15 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, his decision published, or the certificate has been issued. However, if the applicant specified "No," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 16 See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.



14 A EXHIBIT A

TANTA WAS DERIVED BY THE FOLLOWING PROCEDURE:

TANTA WAS A SINGLE PLANT PROGENY OBSERVED WITHIN AN OBSERVATIONAL POPULATION OF UNITED STATES DEPARTMENT OF AGRICULTURE EXPERIMENTAL LINE 8BP-3, WHICH HAD WAX, BUSH BLUE LAKE AND NORMAL 8BP-3 TYPES. VISIBLY THE SELECTED PLANT WAS VERY OUTSTANDING IN APPEARANCE BEING COMPLETELY DIFFERENT FROM ALL THE OTHERS WITHIN THAT POPULATION. THE PLANT WAS VERY PETITE, DETERMINATE, UPRIGHT PLANT TYPE, '4' = HIGH BUSH FORM, AS ILLUSTRATED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE FORM LPGS-470-12 (2-79). THE FOLIAGE WAS SIMILAR IN COLOR AND SHAPE TO EPOCH, A WILBUR-ELLIS COMPANY, SEED DIVISION GARDEN, BUSH BLUE LAKE TYPE. THE PODS WERE UNUSUALLY STRAIGHT, VERY SMOOTH, SHINEY, MEDIUM DARK-GREEN AND VERY NOTICEABLY SHORTER THAN THE COMMERCIAL VARIETY EPOCH.

EXPERIMENTAL LINE 80BP-3 WAS OBTAINED IN 1980 FROM DR. M. J. SILBERNAGEL, UNITED STATES DEPARTMENT OF AGRICULTURE, PATHOLOGIST-GENETICIST AT PROSSER, WASHINGTON. THE PARENTS AND BASIC GENETIC BACKGROUND IS UNKNOWN.

THE LINE IS REPORTED TO HAVE CURLY TOP, ANTHRACNOSE, BEAN YELLOW MOSAIC, BEAN COMMON MOSAIC AND RUST RESISTANCE.

TANTA, AS A SINGLE PLANT PROGENY, WAS GROWN AND MULTIPLIED IN THE GREENHOUSE THREE GENERATIONS AND OBSERVED FOR ANY POSSIBLE VARIANTS. THE FOLLOWING SUMMER, THE GREENHOUSE PRODUCED SEED WAS PLANTED INTO THE FIELD WHERE WE SCREENED 526 PLANTS FOR ANY INDICATION OF VARIANTS. AN ADDITIONAL THREE GENERATIONS WERE INCREASED IN THE GREENHOUSE AND OBSERVED FOR INDICATION OF VARIANTS. ACCUMULATED PRODUCTION FROM EACH OF THESE INCREASES AND OBSERVATIONS WERE PLANTED INTO THE FIELD IN 1984. A TOTAL OF 21,987 PLANTS WERE SCREENED ONCE AGAIN FOR VARIANTS, WITHOUT ANY BEING DETECTED. AS A RESULT OF EIGHT GENERATIONS OF OBSERVATIONS AND INCREASES, WITHOUT THE PRESENCE OF VARIANTS, WE FEEL RATHER CONFIDENT THAT A VERY GOOD LEVEL OF GENETIC UNIFORMITY AND STABILITY EXISTS. AS A RESULT OF THE ABOVE MENTIONED PROCEDURES AND RESULTS, AN INCREASE PROGRAM WILL BE RAPIDLY IMPLEMENTED.

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14 B EXHIBIT B

THE WILBUR-ELLIS COMPANY, SEED DIVISION BELIEVES THAT WE ARE THE ORIGINAL BREEDER OF THE VARIETY "TANTA" AND BASE NOVELTY ON THE FOLLOWING:

TANTA IS MOST SIMILAR TO THE VARIETY EPOCH, A GARDEN, BUSH BLUE LAKE TYPE DEVELOPED IN RECENT YEARS BY WILBUR-ELLIS COMPANY, SEED DIVISION, WITH THE FOLLOWING EXCEPTIONS:

PODS OF TANTA DEVELOP TO PROCESSING MATURITY IN 61 DAYS, AS COMPARED TO EPOCH WHICH MATURES IN 68 DAYS.

THE AVERAGE HEIGHT OF TANTA IS 33 CENTIMETERS AS COMPARED TO EPOCH WHICH IS 45 CENTIMETERS.

THE POD POSITION OF TANTA IS LOW AND VERY CONCENTRATED, WHEREAS EPOCH IS SCATTERED THROUGHOUT THE INTERIOR OF THE PLANT.

THE EXTERIOR POD COLOR OF TANTA IS MEDIUM GREEN, COMPARED TO EPOCH WHICH IS DARK GREEN (OR AS DARK AS BUSH BLUE LAKE 290).

THE POD SIEVE SIZE DISTRIBUTION OF TANTA HAS AVERAGED 9% NUMBER 1's, 43% NUMBER 2's AND 48% NUMBER 3's; AS COMPARED TO EPOCH WHICH IS AVERAGING 5% NUMBER 1's, 19% NUMBER 2's; 36% NUMBER 3's; 33% NUMBER 4's AND 7% NUMBER 5's.

THE POD SHAPE IN CROSS-SECTION, OF TANTA IS ROUND, AS COMPARED TO EPOCH WHICH IS HEART SHAPE.

THE POD FIBER IN TANTA IS CONSIDERABLE AS COMPARED TO EPOCH WHICH IS VERY SPARSE.

THE SEED DEVELOPMENT IN TANTA IS VERY FAST, AS COMPARED TO EPOCH WHICH IS VERY SLOW.

THE SEED SIZE OF TANTA AVERAGES 21.3 GRAMS PER 100 SEEDS, AS COMPARED TO EPOCH WHICH IS AVERAGING 25.2 GRAMS PER 100 SEEDS.

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U.S. DEPARTMENT
OF AGRICULTURE
AMS INFO

TANTA

14 B EXHIBIT B

CONTINUED:

TANTA IS RESISTANT TO ANTHRACNOSE (COLLETOTRICHUM LINDEMUTHIANUM), RACES ALPHA AND BETA, AS COMPARED TO EPOCH WHICH IS SUSCEPTIBLE.

TANTA IS SUSCEPTIBLE TO BACTERIAL BROWN SPOT (PSEUDOMONAS SYRINGAE) COMPARED TO EPOCH, WHICH IS RESISTANT.

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FEB 21 1985
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OF AGRICULTURE
AMS
FVPO



U.S. DEPARTMENT OF AGRICULTURE
 AGRICULTURAL MARKETING SERVICE
 LIVESTOCK, POULTRY, GRAIN & SEED DIVISION
 BELTSVILLE, MARYLAND 20705

EXHIBIT C
 (Bean)

OBJECTIVE DESCRIPTION OF VARIETY
 BEAN (*Phaseolus vulgaris* L.)

NAME OF APPLICANT(S) WILBUR-ELLIS COMPANY SEED DIVISION	FOR OFFICIAL USE ONLY
	PVPO NUMBER 8500068
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) E. 12001 EMPIRE AVE. SPOKANE, WA 99206	VARIETY NAME OR TEMPORARY DESIGNATION (EXP. PVS 295-82-5) "TANTA"

Place numbers in the boxes (e.g.) for the characters that best describe this variety. Measured data should be for SPACED PLANTS. Ranges may also be given. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____ . The location of test area is _____ . Please answer questions appropriate for your variety if the information is available.

1. TYPE:

1 = Field (dry-edible) 2 = Garden

2. MARKET MATURITY:

Days to edible pods Days to green shells

Days to dry seeds

Heat units to edible pods Heat units to green shells

Heat units to dry seeds

<input type="text" value="1"/> <input type="text" value="3"/> No. days earlier than	<input type="text" value="9"/>	} 1 = Tendercrop 3 = Kinghorn Wax 5 = Michelite 62 7 = Bush Blue Lake 290 9 = EPOCH	} 2 = Kentucky Wonder 4 = White Kidney 6 = Dwarf Horticultural 8 = Other (specify below) 10 = CASCADE
..... Same as	<input type="text" value="0"/>		
<input type="text" value="N"/> <input type="text" value="A"/> No. days later than	<input type="text" value="0"/>		

3. PLANT:

1 = Determinate 2 = Indeterminate

cm height

<input type="text" value="1"/> <input type="text" value="2"/> cm shorter than	<input type="text" value="10"/>	} comparison variety from above
..... Same as	<input type="text" value="0"/>	
<input type="text" value="N"/> <input type="text" value="A"/> cm taller than	<input type="text" value="0"/>	

cm spread Number primary branches near base

<input type="text" value="1"/> <input type="text" value="0"/> cm narrower than	<input type="text" value="10"/>	} comparison variety from above	<input type="text" value="1"/> Branching habit: 1 = compact 2 = open
..... width same as	<input type="text" value="0"/>		
<input type="text" value="N"/> <input type="text" value="A"/> cm wider than	<input type="text" value="0"/>		

Main stalk: 1 = brittle 2 = wirey 1 = stout 2 = thin

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3. PLANT: (Cont'd)

Pod position: 1 = low 2 = high 3 = scattered

Bush form (illustrated below):



1 = spherical bush form

2 = stem bush form

3 = wide bush form

4 = high bush form

5 = other (specify) _____

4. LEAVES:

1 = smooth 2 = wrinkled

1 = dull 2 = glossy

Size: 1 = small (Earliwax) 2 = medium 3 = large (Tendercrop)

Color: 1 = light green (as light or lighter than Bountiful) 2 = medium green
3 = dark green (as dark or darker than Bush Blue Lake 290)

5. FLOWERS:

Color: 1 = white 2 = cream 3 = pink 4 = lilac 5 = purple 6 = Other (specify) _____

Days to 50% bloom

6. FRESH PODS: (Edible maturity, average for 20 pods)

Exterior color: 1 = light green (as light or lighter than Bountiful)
2 = medium green
3 = dark green (as dark or darker than Bush Blue Lake 290)
4 = light yellow (Brittlewax)
5 = golden yellow (Cherokee Wax)
6 = green-red variegated (Horticultural)
7 = other (specify) _____

% Sieve size distribution at optimum maturity for non-flat pods

Note:

- 1 = 4.76 mm to 5.76 mm
- 2 = 5.76 mm to 7.34 mm
- 3 = 7.34 mm to 8.34 mm
- 4 = 8.34 mm to 9.53 mm
- 5 = 9.53 mm to 10.72 mm
- 6 = 10.72 mm or larger

1	2	3	4	5	6
09	43	48	0	0	0

2	<input type="text" value="0"/> <input type="text" value="9"/>	cm length	<input type="text" value="0"/> <input type="text" value="9"/>	mm width	<input type="text" value="0"/> <input type="text" value="9"/>	mm thickness
3	<input type="text" value="1"/> <input type="text" value="0"/>	cm length	<input type="text" value="1"/> <input type="text" value="2"/>	mm width	<input type="text" value="1"/> <input type="text" value="1"/>	mm thickness
5	<input type="text" value="N"/> <input type="text" value="A"/>	cm length	<input type="text" value="N"/> <input type="text" value="A"/>	mm width	<input type="text" value="N"/> <input type="text" value="A"/>	mm thickness
6	<input type="text" value="N"/> <input type="text" value="A"/>	cm length	<input type="text" value="N"/> <input type="text" value="A"/>	mm width	<input type="text" value="N"/> <input type="text" value="A"/>	mm thickness

6

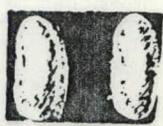
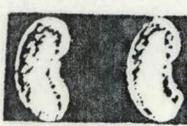
6. FRESH PODS: (Cont'd)

- 3 Cross section pod shape: 1 = flat 2 = oval 3 = round 4 = heart
- 2 Creaseback: 1 = present 2 = absent
- 1 Pubescence: 1 = none 2 = sparse 3 = considerable
- 1 Spur: 1 = straight 2 = slightly curved 3 = curved
- 1 Constrictions: 1 = none 2 = slight 3 = deep
- 2 Pod flesh: 1 = light 2 = medium 3 = dark
- 0 3 mm spur length
- 3 Fiber: 1 = none 2 = sparse 3 = considerable
- 5-6 Number of seeds per pod
- 1 Surface: 1 = smooth 2 = rough
- 2 Suture string: 1 = present 2 = absent
- 3 Seed development (Snap Bean): 1 = slow 2 = medium 3 = fast
- 1 Machine harvest: 1 = adapted 2 = not adapted
- 3 Pod flavor: (1) Standard (Tendercrop)
(2) Mild Blue Lake (BBL 274)
(3) Strong Blue Lake (Pole FM1)
(4) Mild Romano (Roma)
(5) Strong Romano (Pole Romano)
(6) Other (specify) _____

7. SEED COAT COLOR:

- 1 1 = Monochrome 2 = Polychrome 2 1 = shiny 2 = dull
- 1 Primary color: } 1 = white 2 = yellow 3 = buff 4 = tan
- N/A Secondary color: } 5 = brown 6 = pink 7 = red 8 = purple
9 = blue 10 = black 11 = other (specify) _____
- 1 Color Pattern: 1 = none 2 = splashed 3 = mottled 4 = striped 5 = flecked 6 = dotted
- N/A Secondary color location: 1 = hilar ring 2 = ventral surface
3 = sides 4 = dorsal surface
5 = not restricted to any area 6 = combination of location (specify below)
- N/A Hilar ring on colored seeds: 1 = absent 2 = narrow 3 = butterfly shaped

8. SEED SHAPE AND SIZE:

- 1 Hilum view: 1 = elliptical 2 = oval 3 = round 2 Cross section: 1 = elliptical 2 = oval 3 = cordate 4 = round
- 1 Side view:   
1 = oval to oblong 2 = round 3 = reniform

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8. SEED SHAPE AND SIZE: (Cont'd)

2 1 = truncate ends 2 = rounded ends

2 1. 3 gm/100 seed

3. 9 gm/100 seed lighter than 9

gm/100 seed same as N/A

comparison variety from page one

N A gm/100 seed heavier than 0

9. ANTHOCYANIN: (1 = absent 2 = present)

1 Flowers

1 Stems

1 Pods

1 Seeds

1 Leaves

10. DISEASE RESISTANCE (0 = not tested 1 = susceptible 2 = resistant):

2 Anthracnose (specify race below)
ALPHA, BETA STRAINS

0 Fuscouc blight

0 Rust (specify race below)

0 Red node virus

0 Powdery mildew

0 Pod mottle virus

0 Fusarium root rot

2 Bean common mosaic virus (specify strain below)
BEAN VIRUS 1, NY 15, & WESTERN

0 Pythium root rot

0 Mosaic mottle

0 Rhizoctonia root rot

2 Black root

0 Pythium wilt

2 Bean yellow mosaic virus

0 Angular leaf spot

2 Curly top

0 Bacterial wilt

Other (specify below)

0 Halo blight (specify race below)

11. INSECT RESISTANCE: (0 = not tested 1 = susceptible 2 = resistant)

1 Aphids

0 Root knot nematode

1 Leaf hopper

0 Seed corn maggot

1 Lygus

1 Thrips

0 Pod borer

0 Weavils

Other (specify below)

12. PHYSIOLOGICAL RESISTANCE: (0 = not tested 1 = susceptible 2 = resistant)

2 Heat

0 Cold

2 Drought

0 Air pollution

13. COMMENTS: