No. 9900063

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pybas Vegetable Seed Co., Inc.

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 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 CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CELERY

'Sonora'

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 twelfth day of September, in the year two thousand one.

PLANT VARIETY PROTECTION OFFICE DEPARTMENT OF AGRICULTURE

Attest:

Paul M. Zeutenhorst

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Ann M. Veneman

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions.* FORM APPROVED - OMB NO. 0581-005

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

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

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

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).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
Pybas Vegetable Seed Co. Inc.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER
248C

3. VARIETY NAME
Sonora

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
301 N. Depot St.
Santa Maria, CA 93454

5. TELEPHONE *(include area code)*
(805) 922-4624

6. FAX *(include area code)*
(805) 928-0293

FOR OFFICIAL USE ONLY

PVPO NUMBER 9900063

FILING DATE: 11/20/98

FEES RECEIVED
FILING AND EXAMINATION FEE: $ 2450 CC
DATE: 11/20/98
CERTIFICATION FEE: $ 320
DATE: August 30, 2001

7. GENUS AND SPECIES NAME
Apium graveolens

8. FAMILY NAME *(Botanical)*
Umbelliferae

9. CROP KIND NAME *(Common name)*
Celery

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.) (Common name)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
California

12. DATE OF INCORPORATION
12-16-83

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
Keith Trammell
Pybas Vegetable Seed Co.
P.O. Box 868
Santa Maria, CA 93456

14. TELEPHONE *(include area code)*

15. FAX *(include area code)*

16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow instructions on reverse)*

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of the Variety
d. ☒ Exhibit D. Additional Description of the Variety
e. ☒ Exhibit E. Statement of the Basis of the Applicant's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in a public repository)*
g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to PVPO)*

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? *(See Section 83(s) of the Plant Variety Protection Act)?*
☐ YES *(If "yes," answer items 18 and 19 below)* ☒ NO *(If "no," go to item 20)*

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO

19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
☒ YES *(If "yes," give names of countries and dates)* ☐ NO

United States. First date of sale 11-25-97

21. The applicant(s) declare that a viable sample of basic seed of the variety will be 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 applicant(s) is(are) the owner(s) 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 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 *(Owner(s))*
Robert E Pybas

NAME *(Please print or type)*
Robert E. Pybas

CAPACITY OR TITLE
President

DATE
11/16/98

SIGNATURE OF APPLICANT *(Owner(s))*

NAME *(Please print or type)*

CAPACITY OR TITLE

DATE

SD-470 (04-96) *(Previous editions are to be destroyed)*

9900063

Addendum to
APPLICATION FORM

for Celery

'SONORA' (248C)

Question 20.

Seed of the variety 'Sonora' was sold prior to the filing date of this application. Our first date of sale was 11/25/97. No release of seed for sale was made before this date.

Since we market our seed exclusively through a dealer network, we have no control of its distribution or use, except by the nature of our releases through sales. As such, we have limited knowledge of the distribution of this seed to its end users and no direct knowledge of first marketing or sales dates of crops of 'Sonora'.

However, since a majority of our orders come from dealers who have pending sales, we assume that several crops of 'Sonora' have probably been grown and marketed between the date of our first sale and the filing date of this application.

EXHIBIT A

9900063

Origin and Breeding History
of the Celery Variety

'Sonora' (248C)

The celery variety 'Sonora' originated from one of several single plant selections made from the variety 'Tall Utah 52-75' in 1985. 'T.U. 52-75' had been observed to have plant-to-plant variation for size, bolting resistance, and tolerance to fusarium yellows. The objective behind this selection program was to develop a variety with the same essential horticultural features as 'T.U. 52-75', but with improved size, better bolting tolerance, and an improved level of tolerance to the fusarium yellows disease. The selection criteria used for these 1995 selections were larger plant size and slower seed stem development.

The original selections were potted, overwintered, caged singly , and allowed to self pollinate, producing S1 seed in 1986.

In 1987 these S1 lines were trialed together in Santa Maria , California. None of the plots were observed to have the level of uniformity in the characteristics desired. From the most uniform of the lines, a second cycle of single plants were selected, focusing on the same selection criteria as employed the previous generation.

These selected plants were again overwintered in pots and were allowed to self pollinate by caging them individually in 1988, resulting in S2 seed by the fall of that year.

The several S2 lots were trialed in turn in Santa Maria in the summer of 1989. On the basis of this trial, remnant seed of the single plot judged to be the most uniform, was seeded for a mass increase in the fall of 1989. This line was induced by overwintering temperatures, initiated flowering, and produced S2M seed by the fall of 1990.

This S2M lot was planted as plot number 48-209 on fusarium infested ground in 1992 in Santa Maria , and it appeared to segregate for tolerance. Seven single plants free of any fusarium symptoms were selected from the trial.

Of these selections, only three survived. They were overwintered and were self pollinated by being caged individually the following year, 1993. The resultant S2MS seed lots were designated 48-5-A, 48-5-B, and 48C.

Soon after the harvest of these three lots they were seeded, then transplanted to the field in a replicated trial in January, 1994 in Oxnard, California for evaluation for bolting resistance.

Measurements on seed stem length in April, 1994, showed that the stem development in 48C was slower than in the other lines, and on this basis 48C was advanced to a replicated trial on fusarium infested ground, transplanted in June 1994 in Santa Maria.

In this trial 48C appeared uniform in all respects including its tolerance to fusarium yellows. Five superior plants selected from it were overwintered in pots, and were massed together in one cage in 1995 producing S2MSM seed.

This seed lot was trialed in 1996 and 1997 under the experimental designation 248C and was used as stock seed for a commercial seed crop grown in 1997. This Seed crop was sold commercially for the first time in November 1997 under the variety name 'Sonora'.

The last three generations in the development of 'Sonora' including the 1997 commercial seed crop, its stock seed, 248C, produced in 1995, and the previous generation, lot 48C, produced in 1993 have all tested to be uniform and stable. 'Sonora' is free of any variant plant types.

EXHIBIT B
Statement of Distinctness
for the Celery Variety

9900063

'Sonora' (248C)

The celery variety 'Sonora' is most similar to the variety 'Tall Utah 52-75' from which it was originally selected. It differs from 'T.U. 52-75' however in the following aspects:

1. 'Sonora' has less trimming losses from around the base of the plant than does 'T.U. 52-75'. These losses include suckers and small outer petioles that are normally removed in a commercial harvesting operation. This loss is 193 gms. per plant for 'Sonora' and 271 gms. per plant for 'T.U. 52-75'. These figures are the means of the two trials reported in this exhibit. Photographs depicting these differences are included.

2. 'Sonora' has a heavier basally trimmed plant than 'T.U. 52-75' with the tops still intact.. (1176 gms. Vs 1077gms.)

3. 'Sonora' has a heavier stalk than 'T.U. 52-75' (1017 gms. vs 946 gms.) when the basally trimmed plant is topped at 40 cm. in length.

4. 'Sonora' has a greater total number of petioles in the trimmed stalk than 'T.U. 52-75' and a greater number of outer petioles measuring 40 cm. or greater. (18.1 vs 15.5 for total petioles, and 12.8 vs 10.4 for outer petioles greater than 40 cm in length.).

5. 'Sonora" is slower bolting than 'T.U. 52-75' in terms of seed stalk length (10.1 cm. vs 26.3 cm.) when planted early in the year under bolting conditions (Trial #3).

There is no significant difference between 'Sonora' and 'T.U. 52-75' for total plant weight. However, the significantly greater trimming losses with T.U. 52-75 results in a significantly heavier trimmed plant and stalk for 'Sonora'.

In some environments 'Sonora' is slightly but significantly taller than 'T.U.52-75' (Trial 1.). This is reflected in a significantly longer petiole length for 'Sonora' in the same trial.

EXHIBIT B

Trial 1: Santa Maria, CA. Seeded 3-27-98. Transplanted 5-27-98. Harvest 8-17-98. Sample size 25 plants per variety. t-Test: 48df. t(.05)=2.011, t(.01)=2.684

	Sonora	T.U. 52-75
Plant height		
Mean (cm.)	70	66
Std. dev.	1.6	2.3
t-Test: t= 7.701 **		
Total plant weight		
Mean (gms.)	1553	1511
Std. dev.	174.2	190.9
t-Test: t=0.259		
Basal trimmings		
Mean (gms)	235	298
Std. dev.	62.7	85.3
t-Test: t=2.982**		
Wt. of basally trimmed plant		
Mean (gms.)	1322	1213
Std. dev.	141.9	134.3
t-Test: t=2.776**		
Weight of stalk		
Mean (gms.)	1124	1059
Std. dev.	121.5	120.4
t-Test: t=1.897 (sig at .10)		
Total number of petioles		
Mean	18.0	15.4
Std. dev.	1.86	1.32
t-Test: t=5.612**		
No. of petioles > 40cm.		
Mean	12.7	10.3
Std. dev.	1.34	1.03
t-Test: t=7.106**		
No. of petioles < 40cm.		
Mean	5.2	5.1
Std. dev.	1.01	1.26
t-Test: t=0.155		
Petiole length		
Mean (cm.)	25.8	24.3
Std. dev.	1.23	1.59
t-Test: t=3.670**		

Trial 1. (continued)

Petiole width	Sonora	T.U. 52-75
Mean (mm.)	22.7	23.3
Std. dev.	1.57	1.38
t-Test: t=1.530		
Petiole thickness		
Mean (mm.)	10.3	10.6
Std. dev.	.90	.76
t-Test: t=1.360		

* Significant at P=.05
** Significant at P=.01

EXHIBIT B

Trial 2: Lompoc, CA. Seeded 3-27-98. Transplanted 5-29-98. Harvest 8-19-98. Sample size 25 plants per variety. t-Test: 48df. t(.05)=2.011, t(.01)=2.684

	Sonora	T.U. 52-75
Plant height		
Mean (cm.)	67	67
Std. dev.	2.0	1.9
t-Test: t= 0.959		
Total plant weight		
Mean (gms.)	1182	1184
Std. dev.	136.2	133.9
t-Test: t=0.071		
Basal trimmings		
Mean (gms)	151	244
Std. dev.	28.5	74.3
t-Test: t=5.785**		
Wt. of basally trimmed plant		
Mean (gms.)	1030	941
Std. dev.	140.4	119.7
t-Test: t=2.419*		
Weight of stalk		
Mean (gms.)	910	833
Std. dev.	126.9	110.2
t-Test: t=2.315*		
Total number of petioles		
Mean	18.2	15.6
Std. dev.	1.77	1.71
t-Test: t=5.201**		
No. of petioles > 40cm.		
Mean	12.9	10.4
Std. dev.	1.59	1.00
t-Test: t=6.602**		
No. of petioles < 40cm.		
Mean	5.3	5.2
Std. dev.	0.74	1.12
t-Test: t=0.298		
Petiole length		
Mean (cm.)	26.7	25.9
Std. dev.	1.95	1.72
t-Test: t=1.552		

Trial 2. (continued)

Petiole width	Sonora	T.U. 52-75
Mean (mm.)	21.5	22.3
Std. dev.	1.81	1.38
t-Test: t=1.762		
Petiole thickness		
Mean (mm.)	8.0	8.4
Std. dev.	.73	.86
t-Test: t=1.768		

* Significant at P=.05
** Significant at P=.01

EXHIBIT B

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Summary of Means from Trials 1 and 2

Plant height (cm.)	Sonora	T.U. 52-75
Trial 1.	70	66
Trial 2.	67	67
Mean (1 and 2)	69	67

Plant Total Wt.(gms.)	Sonora	T.U. 52-75
Trial 1.	1553	1511
Trial 2.	1182	1184
Mean (1 and 2)	1368	1348

Trimming Losses (gms.)	Sonora	T.U. 52-75
Trial 1.	235	298
Trial 2.	151	244
Mean (1 and 2)	193	271

Trimmed Plant (gms.)	Sonora	T.U. 52-75
Trial 1.	1322	1213
Trial 2.	1030	941
Mean (1 and 2)	1176	1077

Stalk Weight (gms.)	Sonora	T.U. 52-75
Trial 1.	1124	1059
Trial 2.	910	833
Mean (1 and 2)	1017	946

Total No. of Petioles	Sonora	T.U. 52-75
Trial 1.	18.0	15.4
Trial 2.	18.2	15.6
Mean (1 and 2)	18.1	15.5

(Summary of Means from Trials 1 and 2 continued.)

No. of Petioles > 40cm.	Sonora	T.U. 52-75
Trial 1.	12.7	10.3
Trial 2.	12.9	10.4
Mean (1 and 2)	12.8	10.4

No. of Petioles < 40cm.	Sonora	T.U. 52-75
Trial 1.	5.2	5.1
Trial 2.	5.3	5.2
Mean (1 and2)	5.3	5.2

Petiole Length (cm.)	Sonora	T.U. 52-75
Trial 1.	25.8	24.3
Trial 2.	26.7	25.8
Mean (1 and 2)	26.3	25.1

Petiole Width (mm.)	Sonora	T.U. 52-75
Trial 1.	22.7	23.3
Trial 2.	21.5	22.3
Mean (1 and 2)	22.1	22.8

Petiole Thickness (mm.)	Sonora	T.U. 52-75
Trial 1.	10.3	10.6
Trial 2.	8.0	8.4
Mean (1 and 2)	9.2	9.5

EXHIBIT B

Trial 3. Celery bolting trial. Santa Maria ,CA. Seeded 10-21-97. Transplanted 1-27-98. Evaluated 5-26-98. 30 plantas per variety.
t-Test: 58df, t(.05)=2.002, t(.01)=2.664

	Seed Stem Length (cm.)	
	Sonora	T.U. 52-75
Mean	10.1	26.3
Std. dev.	7.034	13.628
Range	2.0 - 24.0	2.0 - 53.0

t-Test: t=5.786**

FORM APPROVED: OMB NO. 0581-0055

EXHIBIT C
(Celery)

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
COMMODITIES SCIENTIFIC SUPPORT DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY

CELERY (Apium graveolens L. var. *dulce* (Miller) Pers.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Pybas Vegetable Seed Co. Inc.	248C	'Sonora'

ADDRESS *(Street and No., or R.F.D. No., City, State, and Zip Code)*
301 N. Depot St.
Santa Maria, CA 93454

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Place numbers in the boxes to designate the expressions which are characteristic of the application variety. Data for quantitative plant characters should be based on a minimum of 50 plants. Include leading zeros when necessary (e.g., [0][8][9]) for quantitative data. Comparative data should be determined from varieties entered in the same trial with the same planting or transplant date. Plant colors may be precisely designated by using any recognized color chart, e.g., The National Bureau of Standards Color Kit 2107.

COMPARISON VARIETIES
(For Use Below)

1 = Tall Utah 52-70R Improved 2 = Florida 683 3 = Summer Pascal 4 = Tall Golden Self Blanching 5 = Tall Utah 52-75

1. TYPE:

[1]

1 = Crystal Jumbo (Tall Utah 52-70R Improved)
2 = Ordinary Utah (Tall Utah 10-B)
3 = Pascal (Summer Pascal)
4 = Green Intermediates (Slow Bolting Green No. 96)
5 = Yellow (Tall Golden Self Blanching)
6 = Other *(Specify)* _____

2. MATURITY:

Number of days from transplanting to harvest date (during principal production period of growing location):

[0][9][0] Days in Western U.S. *(Specify growing location and transplant date):* Santa Maria, California transplanted 6-11-98

[ ][ ] Days earlier than [ ]
Same as [5] } Comparison Varieties
[ ][ ] Days later than [ ]

[ ][ ] Day's in Eastern U.S. *(Specify growing location and transplant date):* _____

[ ][ ] Days earlier than [ ]
Same as [ ] } Comparison Varieties
[ ][ ] Days later than [ ]

Class (as determined by number of days from transplanting to harvest maturity):

[3] In Western U.S.
[ ] In Eastern U.S.

1 = Very Early (< or = 70 days)
2 = Early (71 - 85 days)
3 = Midseason (86 - 100 days)
4 = Late (101 - 115 days)
5 = Very Late (> or = 116 days)

3. PLANT (At Harvest Maturity):

Height (from crown to top of leaves):

Mean: 69 cm

Most common range: 66 to 72 cm

02 cm taller than [5] (Trials 1 & 2)

Same as [ ] Comparison Varieties

[ ] cm shorter than [ ]

LSD .05 = 02.5 cm (Trial 1)

Height class (as determined by mean plant height):

[3] 1 = Short (< 48cm) 2 = Medium (48-61cm) 3 = Tall (> 61cm)

12.8 Number of outer petioles (40cm or longer) per plant

2.4 More than [5]

Same as [ ] Comparison Varieties

[ ].[ ] Less than [ ]

LSD .05 = 2.44

5.3 Number of inner petioles (less than 40cm) per plant

[ ].[ ] More than [ ]

Same as [5] Comparison Varieties

[ ].[ ] Less than [ ]

LSD .05 = [ ].[ ] (Not Significant)

Stalk Shape ("Stalk" refers to a market trimmed plant):

[1] 1 = Cylindrical (Tall Utah 52-70R Improved) 2 = Flaring (Summer Pascal) 3 = Spindle (Tall Utah 10-B)

Stalk Conformation:

[1] 1 = Compact (Tall Utah 52-70R Improved) 2 = Slightly Open (June-Belle) 3 = Loose (Summer Pascal)

Heart Formation:

[3] 1 = Sparse (Summer Pascal) 2 = Medium 3 = Full (Tall Utah 52-70R Improved)

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4. PETIOLE (Outer marketable petioles of stalk; use same petioles and number of petioles for length, width, and thickness measurements):

Length (from butt to first joint):

Mean: 26 cm

Most common range: 24 to 28 cm

001 mm longer than [5] (Trials 1 & 2)

Same as [ ] Comparison Varieties

[ ] mm shorter than [ ]

LSD .05 = 01.5 mm (Trial 1)

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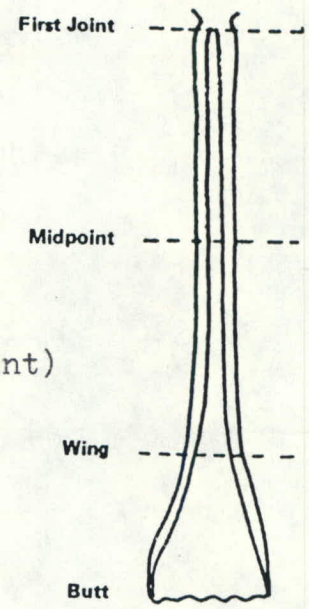
DIAGRAM OF PETIOLE



Length Class (as determined by mean petiole length):

[2] 1 = Short (< 20cm) 2 = Medium (20-30cm) 3 = Long (> 30cm)

Width (at midpoint between wing and first joint):

[2][2] mm

[ ] mm wider than [ ]

Same as [ ]

[1] mm narrower than [5]

Comparison Varieties

LSD .05 = [ ].[ ] mm (Not Significant)

Thickness (at midpoint between wing and first joint):

[0][9] mm

[ ] mm thicker than [ ]

Same as [5]

[ ] mm thinner than [ ]

Comparison Varieties

LSD .05 = [ ].[ ] mm

(Not Significant)

CROSS SECTION AT MIDPOINT

Site of Thickness Determination

Cross-sectional Shape (at midpoint between wing and first joint):

[3] 1 = Deeply Cupped 2 = Moderately Cupped 3 = Slightly Cupped 4 = Nearly Flat

Color (Unblanched at harvest):

[5] 1 = Yellow (Tall Golden Self Blanching) 2 = Light Green (Earlibelle)
3 = Medium Green (June-Belle) 4 = Dark Green (Tall Utah 52-70R Improved)
5 = Very Dark Green (Tall Utah 52-75)

Color Chart Value (*Specify chart used;* Royal Horticultural Soc. Color Chart):

Application Variety 143C

Comparison Variety TU 52-75 , 143C

Anthocyanin:

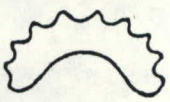
[1] 1 = Absent 2 = Present

Stringiness:

[3] 1 = Very Slight (June-Belle) 2 = Moderate (Florida 683) 3 = Normal (Tall Utah 52-70R Improved)

Ribbing:

[2] 1 = Inconspicuous (Summer Pascal) 2 = Moderate (Tall Utah 52-70R Improved) 3 = Prominent (Tall Golden Self Blanching)



Glossiness:

[2] 1 = Dull (Summer Pascal) 2 = Moderately Glossy (Tall Utah 52-70R Improved) 3 = Glossy (Golden Detroit)

9900063

5. LEAF BLADE (Of outermost petioles of trimmed plant):

Color of Upper Surface:

[2] 1 = Yellowish Green (Tall Golden Self Blanching) 2 = Dark Green (Tall Utah 52-70R Improved) 3 = Other *(Specify)* _____

Color Chart Value *(Specify chart used;* Royal Horticultural Soc Color Chart):

Application Variety 137B

Comparison Variety TU 52-75, 137B

6. BOLTING:

Class:

[2] 1 = Easy Bolting (Tall Utah 52-70R Improved) 2 = Slow Bolting (Slow Bolting Green No. 96) 3 = Very Slow Bolting (Tall Non-Bolting Golden Plume)

[0][0][7] % Plants Bolted in Seedling Year *(Specify growing location and transplant date for field tests, or temperature and length of vernalization period for artificial induction;* Oxnard, California Tsp 12/19/95, Measured 4/16/96):

[ ][ ] % More plants bolted than [ ]

Same % plants bolted as [ ]

[8][0] % Less plants bolted than [1]

1 = Tall Utah 52-70R Improved
2 = Florida 683
3 = Golden Plume
4 = Slow Bolting Green No. 96

Seed stems > 4" in length were considered bolted.

7. STRESS TOLERANCE (0 = untested, 1 = susceptible, 2 = tolerant; data from replicated tests comparing the application variety with the indicated susceptible (S) and tolerant (T) check varieties should be provided whenever possible in Exhibit D):

[0] Adaxial Crackstem (Boron Deficiency; S = Utah 10-B, T = Tall Utah 52-70R Improved)

[0] Abaxial Crackstem (Boron Deficiency; S = Florimart, T = Florida 683)

[0] Leaf Margin Chlorosis (Magnesium Deficiency; S = Utah 10-B, T = Tall Utah 52-75)

[0] Blackheart (Calcium Deficiency; S = Florida 683)

[0] Pithiness (Nutritional Deficiency; S = Tall Utah 52-70R Improved, T = Florida 2-13)

[ ] Other *(Specify)* _____

8. DISEASE RESISTANCE (0 = untested, 1 = susceptible, 2 = resistant; data from replicated tests comparing the application variety with the indicated susceptible (S) and resistant (R) check varieties should be provided whenever possible in Exhibit D):

[0] Bacterial Leaf Spot *(Pseudomonas cichorii;* S = Florida 683, R = Florimart*)*

[0] Early Blight *(Cercospora apii;* S = Florida 683, R = Florimart*)*

[0] Late Blight *(Septoria* spp.; S = Florida 683*)*

[0] Fusarium Yellows, Race 1 *(Fusarium oxysporum* f. sp. *apii;* S = Fordhook, R = Tall Utah 52-70R Improved*)*

[0] Fusarium Yellows, Race 2 *(Fusarium oxysporum* f. sp. *apii;* S = Tall Utah 52-70R Improved*)*

[0] Western Celery Mosaic *(Marmor umbelliferarum;* S = Florida 683*)*

[0] Southern Celery Mosaic *(Marmor cucumeris* var. *commelinae;* S = Florida 683*)*

[0] Pink Rot *(Sclerotinia* spp.; S = Florida 683*)*

[ ] Other *(Specify)* _____

9. INDICATE THE VARIETY THAT MOST CLOSELY RESEMBLES THE APPLICATION VARIETY FOR THE FOLLOWING CHARACTERS:

CHARACTER	VARIETY	CHARACTER	VARIETY
Plant Height	T.U. 52-75	Leaf Color	T.U. 52-75
Petiole Color	T.U. 52-75	Maturity	T.U. 52-75
Petiole Length	T.U. 52-75	Bolting Resistance	Florida Slo Bolt

NOTE: *Any additional descriptive information and supporting documentation may be provided as Exhibit D.*

EXHIBIT D

9900063

Additional Description
of the Celery Variety

'Sonora'

While we do not classify 'Sonora' as having resistance to fusarium race 2 comparable to varieties such as 'Matador' and 'Promise', it does exhibit a useful level of tolerance compared to clearly susceptible varieties such as '52-70 R Imp' and 'Fla 683'.

This level of tolerance is sufficient to produce a good celery crop on ground with medium to low levels of fusarium infestation in mid-season when susceptible standards such as '52-70 R Imp' and 'Fla 683' would be entirely inadequate. This tolerance level is also sufficient for production of 'Sonora' on more highly infested soils going into late season where shorter days and lower temperatures reduce the effects of fusarium, but where once again the susceptible standards would be inadequate.

REPRODUCE LOCALLY. *Include form number and date on all reproductions.* FORM APPROVED - OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

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. 2426).

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Pybas Vegetable Seed Co. Inc.	248C	'Sonora'

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*	5. TELEPHONE *(include area code)*	6. FAX *(include area code)*
301 N. Depot St. Santa Maria, CA 93454	(805) 922-4624	(805) 928-0293
	7. PVPO NUMBER	9900063

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

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

10. Is the applicant the original owner? [X] YES [ ] NO *If no, please answer the following:*

a. If 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 original rights to variety were owned by a company, is the original owner(s) a U.S. based company?

[ ] YES [ ] NO *If no, give name of country* _____

11. Additional explanation on ownership *(If needed, use reverse for extra space):*
'Sonora' was developed by Robert Pybas, President, Pybas Vegetable Seed Co.

PLEASE NOTE:

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

1. 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.

2. 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.

3. 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 final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are 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 10 minutes 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 its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (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 the USDA Office of Communications at (202) 720-5881 (voice) or (202) 720-7808 (TDD).
To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.