200500215

No.

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

PanAmerican Seed, a division of Ball Horticultural Company

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 PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PERMITTED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

VINCA

'Pacifica Cherry Halo'

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 twenty-fifth day of January, in the year two thousand and seven.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions* — Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - 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) 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 OWNER: PanAmerican Seed, a division of Ball Horticultural Company
2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME: Pacifica Halo Cherry B3968D
3. VARIETY NAME: 'Pacifica Cherry Halo'
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*: 622 Town Road, West Chicago, IL 60185, USA
5. TELEPHONE *(include area code)*: (630) 231-3600
6. FAX *(include area code)*: (630) 231-2590
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*: Corporation (Ball Horticultural)
8. IF INCORPORATED, GIVE STATE OF INCORPORATION: IL
9. DATE OF INCORPORATION: July 27, 1995
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*: Audrey Charles, 622 Town Road, West Chicago, IL 60185, USA

FOR OFFICIAL USE ONLY
PVPO NUMBER: 200500215
FILING DATE: April 20, 2005
FEES RECEIVED
FILING AND EXAMINATION FEES: $ 3652.00 DATE 4/20/05
CERTIFICATION FEE: $ 768.00 DATE 12/12/06

11. TELEPHONE *(include area code)*: (630) 588-3118
12. FAX *(include area code)*: (630) 231-2590
13. E-MAIL: acharles@ballhelix.com
14. CROP KIND *(Common Name)*: vinca
15. GENUS AND SPECIES NAME OF CROP: Catharanthus roseus X C. longifolius
16. FAMILY NAME *(Botanical)*: Apocynaceae
17. IS THE VARIETY A FIRST GENERATION HYBRID? ☐ YES ☑ NO
18. DOES THE VARIETY CONTAIN ANY TRANSGENES? *(OPTIONAL)* ☐ YES ☑ NO
IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERICALIZATION. _____

19. 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 Variety
- d. ☐ Exhibit D. Additional Description of the Variety *(Optional)*
- e. ☑ Exhibit E. Statement of the Basis of the Owner'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 an approved public repository)*
- g. ☑ Filing and Examination Fee ($3,652), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)* ☐ YES *(If "yes", answer items 21 and 22 below)* ☑ NO *(If "no", go to item 23)*
21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? ☐ YES ☐ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? ☐ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? ☑ YES ☐ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*
24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*? ☐ YES ☑ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

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

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

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

SIGNATURE OF OWNER		SIGNATURE OF OWNER	
Audrey Charles			
NAME *(Please print or type)* Audrey Charles		NAME *(Please print or type)*	
CAPACITY OR TITLE: Patent Agent	DATE: 4/19/05	CAPACITY OR TITLE	DATE

(See reverse for instructions and information collection burden statement)

ST-470 (04-03) designed by the Plant Variety Protection Office using Word 2002.

JWS, 9/18/06

INSTRUCTIONS

20050021 5

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

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvpo/pvpindex.htm

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 http://www.ams.usda.gov/lsg/seed.htm.

ITEM

19a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

20. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

23. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

24. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

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

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

May 1, 2004 to Ball Seed Company for resale

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

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

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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

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

EXHIBIT A

Origin and Breeding History of the Variety 'Pacifica Cherry Halo'

'Pacifica Cherry Halo' was developed using the pedigree breeding system. The original developmental cross was made in the spring of 1998 using the commercial variety 'Pacifica Red' and the Vinca species *Catharanthus longifolius.*

The species *Catharanthus longifolius* was originally obtained from the University of Connecticut in 1992 where it was designated as *Catharanthus longifolius* (1) selection 3. This species material was maintained by massing plants to maintain the species germplasm. This material consisted of a segregating population, containing both cream and lavender flowers which contained large white centers. The habit of this species is tall, poorly branched and is late flowering when compared with commercial Vinca varieties.

In the fall of 1998, several F1 plants were pollinated and the seed was massed to produce F2 seed. In the spring of 1999 single plant selections were made in the F2 population and self pollinated to produce F3 families. The F2 plants were selected based on a phenotype having a well basal branching habit, early flowering plants, and large flowers containing large white centers.

Several F3 families were selected in the fall of 1999 which were most uniform for the above characters with the additional selection criteria of dark cherry red colored flowers. All the progeny were advanced by single plant selections which were self pollinated.

Subsequent F4 to F6 generations were also advanced using self pollinated single plant selections while continuing to select families with the most uniform previously described characters.

One of the F6 family designated as Pacifica Halo Cherry B3968D, was selected and 64 plants were sib pollinated to produce a stock seed increase. The seed produced from this population was used for the first year of production. Pacifica Halo Cherry B3968D was later designated 'Pacifica Cherry Halo'.

No variants or off types were observed in either the stock seed increase generation or the subsequent crop.

'Pacifica Cherry Halo' is stable and uniform after two generations of seed increase which included the stock seed increase and the first commercial crop.

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EXHIBIT B

Statement of Distinctness of the Variety 'Pacifica Cherry Halo'

'Pacifica Cherry Halo' is most readily distinguished from 'Stardust Rose' which is the most similar commercial variety available, by flower color, and flower size (diameter).

The flower color of 'Pacifica Cherry Halo' is deep cherry (RHS Red-Purple 57A), while that of 'Stardust Rose' is a medium pink (RHS Red-Purple 68A).

The flower diameter of 'Pacifica Cherry Halo' compared to 'Stardust Rose' is shown in Table 1 below. Trials were conducted in the Summer 2003 in the field and in the Summer 2004 in the greenhouse. For analysis, ten flowers were measured from ten plants of each variety. In both trials, the flower diameter of 'Pacifica Cherry Halo' was significantly larger than the comparison 'Stardust Rose'.

Table 1: Differences between flower diameter (mm) between 'Pacifica Cherry Halo' and 'Stardust Rose' grown during Summer Field 2003 and Summer Greenhouse 2004.

Trial	'Pacifica Cherry Halo' Average Flower Diameter (mm)	'Stardust Rose' Average Flower Diameter (mm)	Sample Size Each Variety	t Critical α=.05	t Statistic	P Value
Summer Field 2003	54.8 +/- 1.4	43.5 +/- 1.6	100	2.0	54.2	1.0E-120
Summer Greenhouse 2004	53.5 +/- 1.5	46.6 +/- 1.3	100	2.0	34.6	6.5E-86

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EXHIBIT B
Statement of Distinctness
Vinca 'Pacifica Cherry Halo'

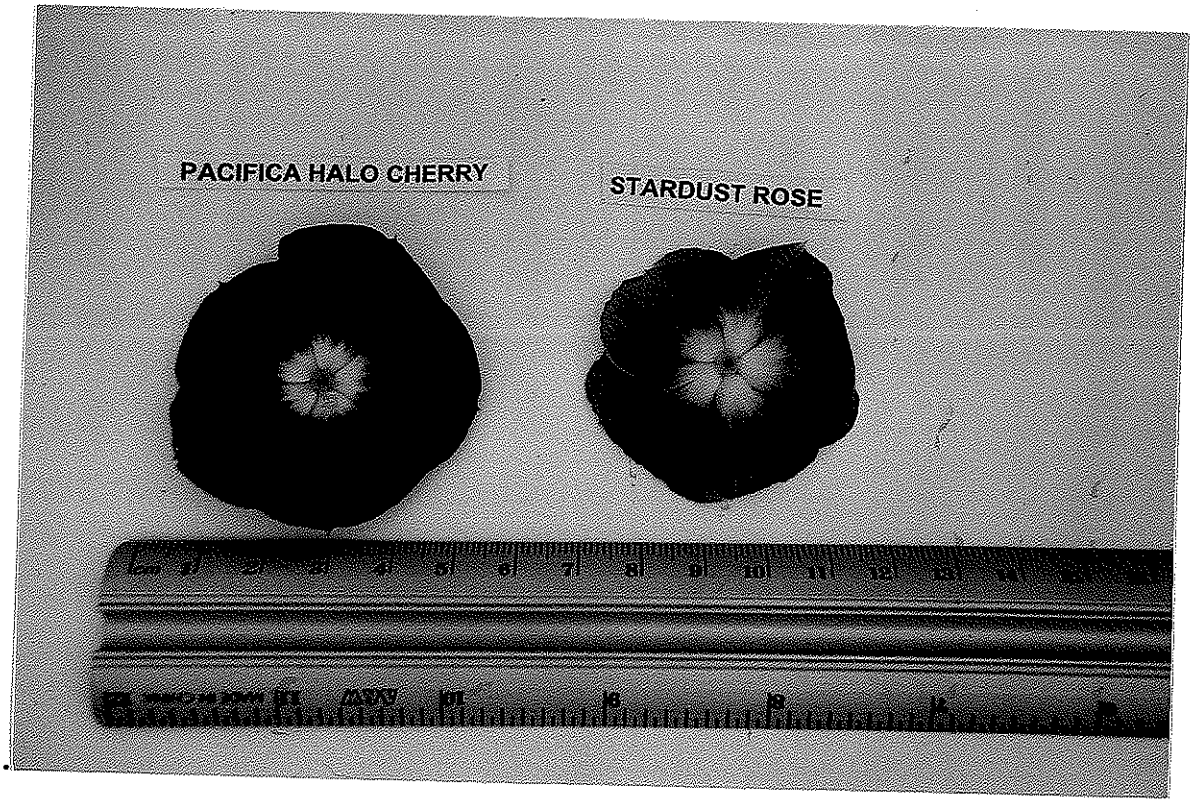


Fig 1. Vinca 'Pacifica Cherry Halo' and 'Stardust Rose'
The flower color of 'Pacifica Cherry Halo' is deep cherry (RHS Red-Purple 57A), while that of 'Stardust Rose' is a medium pink (RHS Red-Purple 68A).

FORM DEVELOPED
(4-92)

EXHIBIT C
(Vinca)

United States Department of Agriculture, Agricultural Marketing Service
Science and Technology Division, Plant Variety Protection Office
National Agricultural Library Building, Room 500
Beltsville MD 20705

OBJECTIVE DESCRIPTION OF VARIETY
VINCA (*Catharanthus* spp.)

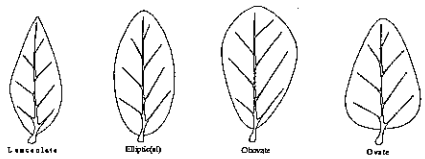
Name of Applicant(s)	Temporary Designation	Variety Name
PanAmerican Seed	Pacifica Halo Cherry B3968D	'Pacifica Cherry Halo'

Address (Street & No., or R.F.D. No., City, State, Zip Code and Country)	FOR OFFICIAL USE ONLY
622 Town Road West Chicago, IL 60185	PVPO Number 200500215

Place the appropriate number that describes the varietal characters typical of this variety in the spaces below. Right justify whole numbers by adding leading zeros if necessary. The variety that you choose for comparison should be the most similar one in terms of background and maturity. The comparison variety used should be grown in field trials **with** the application variety for 2-3 location/years (environments) **in the region and season of best adaptability**. At least one year of trials should be conducted within the United States of America. In general, measurements of quantitative traits should be taken on 15-25 randomly selected plants or plant parts to obtain averages and statistics that describe a typical field of the variety. Designate test location(s):

1. OVERALL PLANT HABIT (at flowering stage):	
Data Collection Site Guadalupe, CA USA	Comparison Variety Name Stardust Rose
2 Species : 1=roseus 2=Other C. roseus x C. longifolius	2 Species C. roseus x C. longifolius
2 Ploidy : 1=Haploid 2=Diploid 3=Triploid 4=Tetraploid	2 Ploidy
1 Life Cycle : 1=Annual 2=Biennial 3=Perennial	1 Life Cycle
1 Growth Habit : 1=Determinate 2=Semi-determinate 3=Indeterminate	1 Growth Habit
1 Growth Form : 1=Upright 2=Semi-prostrate 3=Prostrate	1 Growth Form
1 Flowering : 1=Very Early 2=Early 3=Mid Season 4=Late 5=Continuous	2 Flowering season
0 6 0 Days from Planting to First Flowering	0 7 0 Days to First Flowering
1 8 0 Length of Flowering Season in Days	1 8 0 Days - Flowering Season Length
0 3 5 . 6 cm Plant Height at Maturity	0 2 5 . 0 cm Plant Height
0 3 8 . 0 cm Plant Width at Maturity	0 2 5 . 0 cm Plant Width
3 Plant Height Class : 1=Extra Dwarf 2=Dwarf 3=Semi-dwarf 4=Tall	2 Plant Height Class
2 Plant Width Class : 1=Compact 2=Semi-compact 3=Spreading/Lax	2 Plant Width Class
2. STEM:	
1 Profile: 1=Straight 2=Zig-Zag	1 Profile
3 Branching Pattern : 1=Single Stem 2=Few Branches 3=Many Branches	3 Branching Pattern
3 5 . 0 cm Stem Length from base of stem to terminal flower	2 4 . 0 cm Stem Length (total)
0 1 Number of Internodes below First Branch	0 1 Number of Internodes below First Branch
0 6 Number of First Order Branches (from main stem)	0 6 No. of First Order Branches (from main stem)
1 Stem Anthocyanin: 1=Absent 2=Along Veins only 3=Solid Coloration	1 Stem Anthocyanin
Application Variety Data	Comparison Variety Data

Application Variety Data Page 2	Comparison Variety Data
3. FOLIAGE:	
1 Leaf Type: 1=Simple 2=Compound	1 Leaf Type
1 Leaf Margin : 1=Entire 2=Serrate 3=Other	1 Leaf Margin
3 Leaf Odor : 1=None 2=Mild 3=Strong	3 Leaf Odor
3 Petiole Anthocyanin : 1=Absent 2=Mild 3=Strong	1 Petiole Anthocyanin
2 Leaf Shape : 1=Lanceolate 2=Elliptic 3=Obovate 4=Ovate	2 Leaf Shape
0 2 7.0 mm Leaf Width	0 2 0.0 mm Leaf Width
0 7 0.0 mm Leaf Length	0 5 0.0 mm Leaf Length
LEAF DORSAL SIDE:	**LEAF DORSAL SIDE**
2 Leaf Color : 1=Light Green 2=Medium Green 3=Dark Green 4=Other (describe)	2 Leaf Color
Color Chart Name RHS 137B Color Chart Reading	RHS 137B Color Chart Reading
1 Pubescence : 1=Absent 2=Light 3=Heavy	1 Pubscence
2 Luster : 1=Dull 2=Shiny	2 Luster
LEAF VENTRAL SIDE:	**LEAF VENTRAL SIDE**
2 Leaf Color : 1=Light Green 2=Medium Green 3=Dark Green 4=Other (describe)	2 Leaf Color
Color Chart Name RHS 138A Color Chart Reading	RHS 139B Color Chart Reading
1 Pubescence : 1=Absent 2=Light 3=Heavy	1 Pubscence
1 Luster : 1=Dull 2=Shiny	2 Luster
4. FLOWER:	
1 Type : 1=Single 2=Semi-Double 3=Double	1 Type
1 Form : 1=Flat 2=Cupped 3=Other	1 Form
2 Shape : 1=Round (petals overlap) 2=Intermediate 3=Star (petals gapped)	2 Shape
2 Flower Odor : 1=None 2=Mild 3=Strong	2 Flower Odor
1 Pedicel Anthocyanin : 1=Absent 2=Faint 3=Strong	1 Pedicel Anthocyanin
5 6 Number Flowers per Plant	2 8 Number Flowers per Plant
0 5 4 . 2 mm Flower Diameter	0 4 5 . 5 mm Flower Diameter
0 3 . 0 mm Orifice Size (including the opening of the corolla tube)	0 3 . 0 mm Orifice Size
0 4 . 0 mm Ring Width (from outside orifice to edge of color band)	0 5 . 0 mm Ring Width
0 2 5 . 0 mm Petal Width (at widest point)	0 2 0 . 0 mm Petal Width
0 2 0 . 0 mm Petal Length (from ring to outer edge)	0 1 5 . 0 mm Petal Length
Application Variety Data	Comparison Variety Data



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Application Variety Data	Page 3	Comparison Variety Data

5. FLOWER COLORS : (Note: Common Color Charts: RHS=Royal Horticultural Society Colour Chart; Munsell=Munsell Book of Color)

	Color Verbal Name	Color Chart Code	Color Chart Name		Color Name	Chart Code	Chart Name
EXAMPLE	**Light Blue**	**106C**	**RHS**				
Petal Color	Deep cherry	57A	RHS	Petal Color	Medium pink	68A	RHS
Ring Color	White	155B	RHS	Ring Color	White	155B	RHS
Orifice Color	Yellow	4C	RHS	Orifice Color	Yellow	4C	RHS
Other Color (describe location or placement)				Other			

6. SEEDS (Measure mature (dry) seeds):

4 Seed Set : 1=None 2=Poor 3=Fair 4=Good 5=Excellent	3 Seed Set
4 Seed Coat Color: 1=White 2=Tan 3=Brown 4=Black 5=Other _____	4 Seed Coat Color
1 8 6 0 . 0 mg Weight per 1000 Seeds	1 2 5 3 . 0 mg Seed Weight

7. RESISTANCE: Test as many disease and insect reactions as possible before applying for protection. Tests for disease and insect reactions should include a resistant check and a susceptible check for each disease or insect being tested. When using disease resistance to describe novelty, information on these checks should be included in the novelty statement in support of the novelty claim. Rate the application variety and the comparison variety on a scale of 1 (most susceptible) to 9 (most resistant) for each disease or insect reaction being reported. Give the scientific and common names of each disease/insect for completeness, and the race or strain, if known. **(Rate from 1 (most susceptible) to 9 (most resistant)):**

Rating	Disease/Insect Name (give race or strain, if known)	Rating	Disease/Insect Name
___	N/A	___	N/A
___		___	
___		___	
___		___	

Application Variety Data	Comparison Variety Data

Application Variety Data	Comparison Variety Data

8. Attach ONE photographic print of the application variety and the comparison variety described above, indicating the identity of each variety. This photograph should show flower heads of each variety at a magnification sufficient to identify most of the verbal descriptors given above. (Additional photographs in support of this application may be supplied as part of the Exhibits B or D.)

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

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

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
PanAmerican Seed, a division of Ball Horticultural Company	Pacifica Halo Cherry B3968D	'Pacifica Cherry Halo'
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(Include area code)*	6. FAX *(Include area code)*
622 Town Road West Chicago, IL 60185 USA	(630) 231-3600	(630) 231-2590
	7. PVPO NUMBER 200500215	

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

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

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

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

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

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

The breeding of variety 'Pacifica Cherry Halo' was conducted in Guadalupe, California at a PanAmerican Seed facility. Other than greenhouse technical staff, the breeder, Denis Flaschenriem, worked alone to develop this variety. He was and currently is an employee of PanAmerican Seed. By agreement between the employee and PanAmerican Seed, all rights and ownership to the variety resides with PanAmerican Seed.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet 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 the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

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

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

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

SMS 9/18/06

EXHIBIT F
DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	TEMPORARY OR EXPERIMENTAL DESIGNATION
Pan~~American~~ American Seed, a division of Ball Horticultural Company	622 Town Road West Chicago, IL 60185 USA	Pacifica Halo Cherry B3968D **VARIETY NAME** 'Pacifica Cherry Halo'
NAME OF OWNER REPRESENTATIVE (S)	**ADDRESS** *(Street and No. or RD No., City, State, and Zip Code and Country)*	**FOR OFFICIAL USE ONLY**
Audrey Charles	622 Town Road West Chicago, IL 60185 USA	**PVPO NUMBER** 200500215

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Audrey Charles
Signature

4/19/05
Date