



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Ferry-Morse Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGEV 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 MAKE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES HAVE 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 VUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNVER 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 PERIOVIC 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 (7 U.S.C. 1542 AS AMENDED 7 U.S.C. 2321 ET SEQ.)

TOMATO

'Peelmech'



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 27th day of February in the year of our Lord one thousand nine hundred and eighty-four.

Attest:

Kenneth Hoans
 Commissioner
 Plant Variety Protection Office
 Grain Division
 Agricultural Marketing Service

John R. Block
 Secretary of Agriculture

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

No certificate for plant variety protection may be issued **unless** a completed application form has been received (5 U.S.C. 553).

INSTRUCTIONS: **See Reverse.**

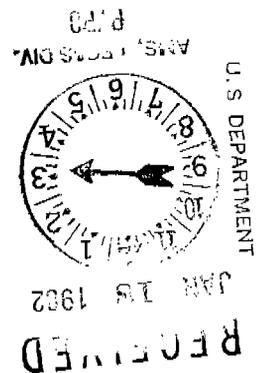
1a. TEMPORARY DESIGNATION OF VARIETY <p style="text-align: center; font-size: 1.2em;">E9208</p>		1b. VARIETY NAME <p style="text-align: center; font-size: 1.2em;">PEELMECH</p>		FOR OFFICIAL USE ONLY	
2. KIND NAME <p style="text-align: center; font-size: 1.2em;">TOMATO</p>		3. GENUS AND SPECIES NAME <p style="text-align: center; font-size: 1.2em;">Lycopersicon esculentum Mill.</p>		PV NUMBER <p style="text-align: center; font-size: 1.5em; font-weight: bold;">8200058</p>	
4. FAMILY NAME (BOTANICAL) <p style="text-align: center; font-size: 1.2em;">Solanaceae</p>		5. DATE OF DETERMINATION <p style="text-align: center; font-size: 1.2em;">11/16/79</p>		FILING DATE <p style="text-align: center;">1/25/82</p>	
6. NAME OF APPLICANT(S) <p style="text-align: center; font-size: 1.2em;">Ferryr-Morse Seed Company</p>		7. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code) <p style="text-align: center; font-size: 1.2em;">111 Ferry-Morse Way Drawer 7274 Mountain View, Calif. 94042</p>		TIME <p style="text-align: center;">1:00 P.M.</p>	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <p style="text-align: center; font-size: 1.2em;">Corporation</p>		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION <p style="text-align: center; font-size: 1.2em;">California</p>		DATE <p style="text-align: center;">1/25/82</p>	
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: <p style="text-align: center; font-size: 1.2em;">Dr. David J. Thompson, Vice President Ferry-Morse Seed Company P. O. Box 1010, San Juan Bautista, California 95045</p>		11. DATE OF INCORPORATION <p style="text-align: center; font-size: 1.2em;">7 April 1969</p>		8. TELEPHONE AREA CODE AND NUMBER <p style="text-align: center; font-size: 1.2em;">(408) 637-7461 415 967-6973</p>	
13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:					
<input checked="" type="checkbox"/> 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)					
<input checked="" type="checkbox"/> 13B. Exhibit B, Novelty Statement.					
<input type="checkbox"/> 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)					
<input checked="" type="checkbox"/> 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?			14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?		
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			<input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? (If "Yes," give name of country and dates.)					
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? (If "Yes," give name of countries and dates.)					
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL?					
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
17. The applicant(s) declare(s) that a viable sample of basic seed 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 Act.					
Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.					
<p style="font-size: 1.5em;">1/11/82</p> <hr/> (DATE)		 <hr/> (SIGNATURE OF APPLICANT)			
<hr/> (DATE)		<hr/> (SIGNATURE OF APPLICANT)			

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain 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

- 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 uniformity and 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, 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.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.



8200058

VARIETY: Peelmech, formerly **E9208**EXHIBIT A: Origin and Breeding History of the Variety

Peelmech was selected as a single plant selection, using the pedigree method of breeding, from a cross **made** in March of 1972 between **V7112-Ms** from Vineland, Ontario used as seed parent and UC **105-2-2Ms** from Davis, California used as the pollen parent.

F₁ plants were medium determinate with a heavy set of medium sized, elongated, firm tough fruit. F₂ seeds from several **F₁** plants were harvested from row **#7961** in October of 1972 at San Juan Bautista, California.

F₂ plants in 1973 had good crops of medium early maturing, **firm & tough**, half-long, medium sized fruit all uniform green while **immature**. There was some segregation for fruit length. **F₃** seeds were saved from four selected plants in row **#1792** in October of 1973 at San Juan Bautista, California.

F₃ plant progenies of the four selected plants were noted in **1974**, and the fourth row had the best combination of fruit size, set, firmness and lab quality including high solids. Five selections were taken from this row **f20246** in October of 1974. Arthritic stem tendency was noted in some of these and the fruit size was quite uniform.

In 1975, the progeny from selection **#1** looked very good at San Juan Bautista. The plants showed good fruit size with high soluble solids and yield so ten selections were taken from row **#34629** in October of 1975.

In 1976, the progeny from selection **#2** looked exceptionally good at San Juan Bautista. The yield was outstanding and the fruit showed no cracking after a substantial rain. F₆ generation seeds were massed from all plants in row **#43613** in October of 1976. This lot was designated as E7203 later to become **VF 6203**.

Remnant seed of the same selection **#2** mentioned above was sent to Los Mochis, Mexico in December of 1976 for evaluation in the winter production area. It yielded well but defoliated more than other lines so F₆ seeds were massed from 5 selected plants in row **#75** in June of 1977. Since it was too late to plant this seed in California the seed was returned to Mexico in October of 1977 for winter evaluation.

In March of 1978 the selected mass lot was **evaluated** at Los Mochis and had a heavy yield of firm, tough fruit with only slight defoliation. Two selections were taken from row **#158**.

These selections were returned to California and seeded in May of 1978 at San Juan Bautista. Selection #1 from Mexico was outstanding with an excellent yield of **smooth**, half-long fruit on a more compact vine than **E6203**. The fruit also showed noticeable fewer blossom-end dimples than **E6203** fruit which is very desirable for whole peeling. **F₃** generation seeds were **massed** from all plants in row #**60826** in October of 1978, since the row had a very uniform vine type.

In 1979, this lot (**60826-Ms**) was placed in a variety trial along with **E6203** at San Juan **Bautista**. They were similar in **most** respects but **60826** had a higher yield on a **more** compact vine and had almost no blossom end dimples on the fruit and canneries were starting to complain about "flagging" on whole peeled fruit of **E6203** because of the numerous blossom-end dimples.

In 1979, 1980, and 1981 line **60826** was increased and **trialed** under the designation **E9208** with the University of California at Davis and with County Farm Advisors. No obvious "offs" were found in the 50,000 **plant** increase in 1980.

Trials through out California and other tomato growing areas during 1979, 1980 and 1981 showed **E9208** to be widely adapted and commercially desirable for machine harvest and processing. Observations continued to show that **E8208** had consistently smoother fruit particularly on the blossom end than **E6203** as well as a **more** restrained, compact vine.

VARIETY; Peelmech (E9208)

EXHIBIT A: Supplement

Seed increases for Peelmech were made in 1979, 1980, and 1981, These increases consisted of 400 plants, 50,000 plants and 500,000 plants respectively and were found to be very uniform and stable with no obvious off-type--plants or fruit,

January 7, 1983

January 5, 1981

8200058

VARIETY: Peelmech, formerly **E9208**

EXHIBIT B: Novelty Statement

*See Supplemental record
1/26/81*

Peelmech closely resembles VP 6203 from which it was selected. The fruit and vine type are **almost** indistinguishable; however, the Peelmech fruit show significantly less dimpling on the blossom end. Many fruit of VP 6203 show a distinct inverted blossom end variously described as an inverted nipple, navel, or dimple. The **fruit** of Peelmech show consistently and noticeably fewer dimples. Data collected over three years and from six different locations can be summarized as follows:

<u>Variety</u>	<u>Total # Dimpled</u>	<u>Total # fruit examined</u>	<u>% Dimpled</u>
VF 6203	126	220	57
Peelmech	37	220	17

These totals are from 13 **paired** samples of 15 or 20 fruit each. In each of the 13 trials the two varieties were grown side by side and fruit was picked at random from the row but only one fruit/plant. The **"t"** valued was 7.7 and showed significance at 1% level since $t(.05) = 2.16$ and $t(.01) = 3.01$

VARIETY: Peelmech (formerly E9208)

EXHIBIT "B" Novelty Statement - supplement 1983

Peelmech has exhibited **earlier ripening** of the **first** several inflorescences compared to **VF6203**. On **9/6/83**, in **Sun Prairie, WI.**, **Peelmech** averaged **five** inflorescences per plant with colored **fruit** while **VF6203** averaged only three inflorescences per plant with colored fruit. Counts of orange and red fruit were **made** on 14 consecutive plants of each variety in adjacent rows with the following results:

Peelmech \bar{x} = 25.8 colored fruit/plant
VF6203 \bar{x} = 11.4 colored fruit/plant
calculated $t = 5.42$
probability = $< .001$

This was substantiated in **San Juan Bautista, CA.** on **7/15/83** when **counts** of the nodes to the 1st and 2nd inflorescences were **made**. For **Peelmech** these inflorescences appeared **earlier** in the **development** of the plant than they did for **VF6203**. Counts of total nodes to 2nd inflorescence were **made** on 20 consecutive plants of each variety in adjacent rows with the following results:

Peelmech \bar{x} = 8.8 nodes to 2nd inflorescence
VF6203 \bar{x} = 10.2 nodes to 2nd inflorescence
calculated $t = 3.89$
probability = $< .001$

Leaf morphology of the mature leaf beneath the 3rd inflorescence was different in the same **California** trial. **Peelmech** exhibited Type 3 leaves with **almost** no **micro** leaflets and no **bi-pinnate conformation** whereas **VF6203** had Type 2 leaves with **some micro** leaflets and noticeable **bi-pinnate conformation**.

**0.6. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, GRAIN, AND SEED DIVISION
BELTSVILLE, MARYLAND 20705**

**OBJECTIVE DESCRIPTION OF VARIETY
TOMATO (*Lycopersicon esculentum* Mill.)**

Name of Applicant FERRY-MORSE SEED COMPANY	Temporary designation E9208	Variety Name Peelmech
Address (Street and No. or R.F.D. No., City, State, Zip) 111 F&v-Morse Way Drawer 7274 Mountain View, CA. 94042	FOR OFFICIAL USE ONLY PVPO NUMBER 8200058	

Choose responses which best represent your variety in the characters below. When a single quantitative value is requested (e.g. fruit weight), your answer should be the mean of an adequate, unbiased sample of plants. The applicant variety should be compared with at least one well-known standard check variety of the same type, and grown in the same trial(s). The characters on this form should be described from plants grown under normal conditions of culture for the variety. Indicate by a check whether trial data are from greenhouse or field plantings. Trials direct-seeded x or transplanted . Give locations and dates of trials San Juan Bautista, CA. seeded 5/11/81. Use leading zeroes when necessary (e.g. 019 or 081, etc.). Complete this form as fully as possible for best characterization of the variety.

1. **SEEDLING: (2-15 cm, well-illuminated)**

- 2 Anthocyanin in hypocotyl: 1 = absent 2 = present
Cotyledon: 1 = normal 2 = giant

2. **MATURE PLANT:**

- 3 Growth: 1 = indeterminate 2 = semi-determinate 3 = determinate
 2 Size (compared to others of its growth type): 1 = small 2 = medium 3 = large
 1 Habit: 1 = sprawling (decumbent) 2 = semi-erect 3 = erect
 2 Foliage cover: 1 = light 2 = moderate 3 = heavy

3. **STEM:**

- 1 Internode length (between the 1st and 4th inflorescences):
1 = short () 2 = intermediate () 3 = long ()
 3 Branching: 1 = sparse (Brehm's Solid Red) 2 = intermediate ()
3 = profuse (UC82)
 2 Branching at cotyledonary or first leafy node: 1 = present 2 = absent
 2 Pubescence: 1 = smooth (no long hairs) 2 = sparsely hairy (scattered long hairs)
3 = densely hairy or canescent
 2 No. of nodes below the first inflorescence:
1 = few () 2 = intermediate () 3 = many ()
 2 No. of nodes (leaves) between inflorescences
 2 Thickness: 1 = slender, vttk 2 = medium thickness 3 = thick, stiff

4. **LEAF (Mature leaf under the 1st to 3rd inflorescence):**

- 1 Type: 1 = tomato 2 = potato
 2 Division: 1 = once-pinnate 2 = intermediate (pinnate-bipinnate)
3 = bipinnate, many small leaflets with the larger ones
 Attitude: 1 = semi-erect 2 = horizontal 3 = drooping
 2 Leaflet blade: 1 = thin 2 = medium 3 = thick
 2 Bases of major leaflets: 1 = even 2 = oblique (the rider offset on petiole)
 3 Margins of major leaflets: 1 = nearly entire 2 = shallowly toothed or scalloped
3 = deeply toothed or cut, especially towards base
 2 Marginal rolling: 1 = absent 2 = present

4. LEAF (Mature leaf under the 1st to 3rd inflorescences) (continued):

- Surface Of major leaflets: 1 = smooth 2 = rugose (bumpy or veiny)
- Leaflet: 1 = normal 2 = slightly wilted 3 = wilted
- Shape of major leaflet: 1 = broadly ovate 2 = ovate to lanceolate
3 = slender and lanceolate, tapered to tip
- Pubescence or hairiness: 1 = smooth 2 = normal 3 = woolly
- Color of leaflet: 1 = light green (Earlinorth) 2 = medium green ()
3 = gray-green () 4 = dark green (UC82)
- Color of leaf on check variety (same scale): Variety VF6203

5. INFLORESCENCE:

- Type: 1 = simple (racemose) 2 = forked (2 major axes) 3 = compound (much branched)
- No. of flowers per fruit (in 2nd or 3rd inflorescence):
1 = 1-4, 2 = 4-8, 3 = 8-12, 4 = 12 or more

6. FLOWER:

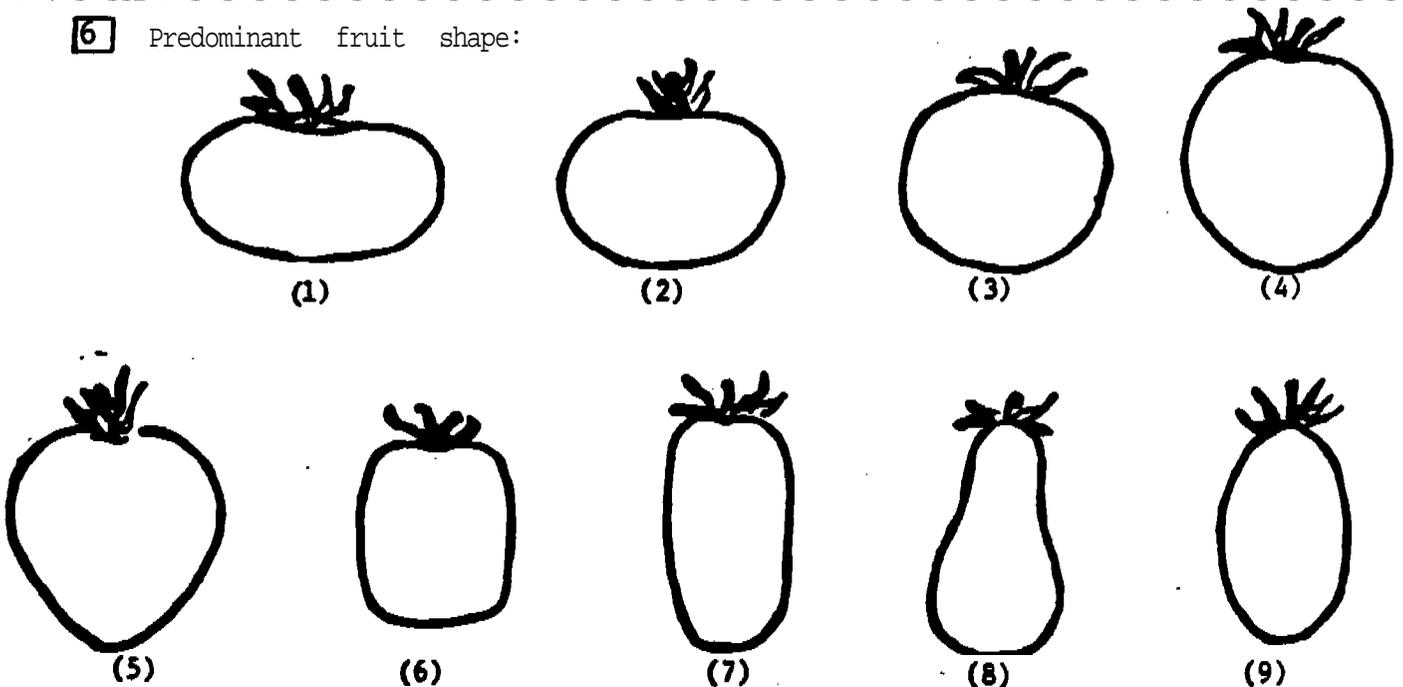
- Calyx: 1 = normal (lobes tvl-shaped) 2 = macrocalyx (lobes large, leaflike)
3 = fleshy
- Flower color: 1 = yellow 2 = old gold 3 = white or tan
- Style exertion: 1 = included 2 = tvtn with stamens 3 = txstrtd
- Style pubescence: 1 = absent 2 = sparse 3 = dense
- Anthers: 1 = all fused into tube 2 = separating into 2 or more groups at anthesis
- Fasciation (1st flower of 2nd or 3rd inflorescence):
1 = absent 2 = occasionally present 3 = frequently present

7. FRUIT (3rd fruit of 2nd or 3rd cluster):

- Abscission layer: 1 = present (ptdctflatt) 2 = absent (jointless)
- mm. Length of pedicel (from abscission layer or joint to calyx attachment)
- Mature fruit: Maximum diameter:
1 = small cherry (< 20 mm) 2 = large cherry (20-35 mm)
3 = cocktail (35-48 mm) 4 = U.S. extra small (48-54 mm)
5 = U.S. small (54-58 mm) 6 = U.S. medium (58-64 mm)
7 = U.S. large (64-73 mm) 8 = U.S. extra large (73-88 mm)
9 = U.S. maximum large (88-100 mm) 10 = U.S. maximum large (> 100 mm)
- Maximum diameter of check variety, same classes as above
(Specify name) VF6203

g Fruit weight g Check variety VF6203

Predominant fruit shape:



7. **FRUIT** (3rd fruit of 2nd or 3rd cluster):

TOMATO - 3

Shape of transverse section:



1=round



2=flattened



3=angular



4=irregular

Shape of blossom end:



1=indented



2=flat



3=nipped



4=tapered

Shape of stem end:



1=flat

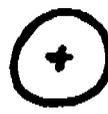


2=indented

Shape of pistil scar:



1=dot



2=stellate



3=linear



4=irregular

Fruit surface: 1 = smooth 2 = slightly faccitttd 3 = moderately fasciated

Fruit color (mature-green stage):

1 = light green ('Lanai', VF145-F5) 2 = Lt. gray-green ()

3 = apple green ('Heinz 1439 VF') 4 = dark green ()

Fruit pattern (mature-green stage): 1 = green shouldered 2 = uniform green

Mature fruit color (full-ripe): 1 = white 2 = yellow 3 = tangerine
4 = pink 5 = red 6 = brownish-red

7 = greenish 8 = other (specify) _____

Flesh color (full-ripe): 1 = yellow 2 = red 3 = crimson 4 = other _____

Epidermis: 1-normal 2 = easy-peel

Epidermis color: 1 = colorless 2 = yellow

Epidermis thickness: 1 = thin 2 = average 3 = thick

Thickness of ptricarp: 1 = thin (< 3 mm) 2 = medium (3-6 mm) 3 = chick (> 6 mm)

Thickness of ptricarp of check variety (same scale) Variety: VF 6203

Core size: 1 = coreless 2 = small 3 = medium 4 = large

Core shape: 1 = solid, unbranched 2 = branched

Core txturt: 1 = soft, edible 2 = tough or fibrous

Stem scar size: 1 = small () 2 = medium () 3 = large ()

No. of locules: 1 = two 2 = three and four 3 = five or more

Fruit firmness¹ (minimum table-ripe):

1 = extra-soft ('Gardener') 2 = very soft ('Valiant') 3 = toft ('Campbell 28')

4 = fairly firm ('Tropic') 5 = firm ('MH-1') 6 = very firm ('UC-82')

8. **PHENOLOGY** (Growing degree days, or bttd units on a bare temperature of 51° F art preferable-but you my report tither growing degree days or calendar days. Circle either "days" for calendar days, or "heat units" for growing degtrtt days):

Days/heat units from seed to first open flower:

days, Application variety days, Check variety No. 1 _____
 days, Check variety No. 2 _____

Days/heat units from seed/insprant (indicate which) to first ripe fruit:

days, Application variety days, Check variety No. 1 _____
 days, Check variety No. 2 _____

¹For definitions of these • abjectivt terms see Kader & Morris (1976) In: Proc. 2nd Tomato Quality Workshop.

12. DISEASE AND PEST REACTION (Use code: 0=not tested, 1=susceptible, 2=resistant) If claim of novelty is based wholly or in part upon disease resistance, trial data should be appended (Exhibit D) and should include date and location of trial(s), method of testing, reaction of application variety, and reaction of check varieties (identified by name).

Viral Diseases:

- Cucumber mosaic
 Tobacco mosaic, Race 0
 Tobacco mosaic, Race 22 (Tm 22)
 Other (specify) _____
- Curly top
 Tobacco mosaic, Race 1 (Tm 1)
 Tomato spotted wilt
- Potto-Y virus
 Tobacco mosaic, Race 2 (Tm 2)
 Tomato yellows

Bacterial Diseases:

- Bacterial canker (Corynebacterium michiganense)
 Bacterial speck (Pseudomonas tomato)
 Bacterial wilt (Pseudomonas solanacearum)
 Other bacterial disease (specify) _____
- Bacterial soft rot (Erwinia carotovora)
 Bacterial spot (Xanthomonas vesicatorium)

Fungal Diseases:

- Anthracnose (Colletotrichum spp.)
 Brown root rot or corky root (Pyrenochaeta lycopersici)
 Early blight (Alternaria solani) defoliation
 Fusarium wilt, Race 2 (F. oxysporum f. lycopersici)
 Late blight, Race 0 (Phytophthora infestans)
 Leaf mold, Race 1 (Cladosporium fulvum)
 Leaf mold, Race 3 (C. fulvum)
 Nailhead spot (Alternaria tomato)
 Rhizoctonia root rot (R. solani)
 Southern blight (Sclerotium rolfsii)
 Verticillium wilt, Race 1 (V. albo-atrum)
 Other fungal diseases (specify) _____
- Botrytis rot or mold (B. cinerea)
 Collar rot or stem canker (Alternaria solani)
 Fusarium wilt, Race 1 (F. oxysporum f. lycopersici)
 Gray leaf spot (Stemphylium solani, S. floridanum)
 Late blight, Race 1 (Phytophthora infestans)
 Leaf mold, Race 2 (C. fulvum)
 Leaf mold, other races (specify) _____
 Phytophthora root rot (P. parasitica)
 Septoria leaf blight (Septoria spp.)
 Target leafspot (Corynespora caspicola)
 Verticillium wilt, Race 2 (V. albo-atrum)

Insect and Pests:

- Colorado potato beetle (Leptinotarsa decemlineata)
 Root knot nematode (Meloidogyne incognita)
 Spider mites (Tetranychus spp.)
 Sugar beet army worm (Spodoptera exigua)
 Tobacco flea beetle (Epitrix hirtipennis)
 Tomato hornworm (Manduca quinquemaculata)
 Tomato fruitworm (Heliothis zea)
 Whitefly (Trialeurodes vaporariorum)
 Other (specify) _____

Pollutants:

- Ozone Sulfur dioxide Other (specify) _____

REFERENCES

- Anonymous, 1976. MI About Tomatoes. Ortho Books, Chevron Chemical Co., San Francisco. In three volumes: Midwest/Northeast Edition, West Edition, and South Edition.
- Ware, G. W. & J. P. McCollum, 1961. *Producing Vegetable Crops*. The Interstate Printer & Publithtrr, Inc., Danville, Illinois. (Chapter 30, pp. 451-473, "Tomatoes".)
- Webb, R. E., T. H. Barksdale, & A. It. Stoner, 1973, "Tomatoes" pp. 344-361 In: Nelson, R.R. (Ed.) *• r=dbS Plants for Disease Resistance*. Pennsylvania State University Press, University Park.
- Young, P. A. & J. W. MacArthur, 1947. Horticultural characters of tomatoes. Bull. Texas Agric. Exper. Station No. 698.

8200058

VARIETY: Peelmech, formerly E9208

EXHIBIT D: Additional Description of the Variety

Peelmech closely resembles VF 6203 from which it was selected. The vine is a compact determinate type that is very uniform and less rangy than the **VF** 6203 vine. The foliage is coarse and curly with barely adequate cover for the fruit.

Peelmech has excellent concentration of **maturity**, slightly better than VF 6203 and UC 82B. It is early maturing similar to VF 6203 and one week earlier than **UC82B** and **VF145B-7879**. Grower yields of **45T/A** with machine harvest are not uncommon in **California** and one 50 acre field in San Juan **Bautista** averaged **53T/A**.

The fruit is a firm & tough, medium sized, square-round to half-long with thick walls and is uniform green uu while immature. It has high soluble solids similar to **VF** 6203 and **VF 145B-7879**. The **pH** and viscosity are similar to VF 6203 but higher than "7879". The fruit has a puffy tendency similar to **VF** 6203 and the fruit size is also similar.

ASSIGNMENT OF INTELLECTUAL PROPER-IT

WHEREAS, HARRIS MORAN SEED COMPANY, a corporation duly organized and existing under the laws of the State of Maryland, having its principal place of business at 45 11 **Willow** Road, Suite 3, Pleasanton, California 94588 (“Assignor”), has, pursuant to that certain Bill of Sale and **Assignment** dated as of June **30, 1997, transferred** to FERRY-MORSE SEED COMPANY (CALIFORNIA), a corporation duly **organized** and existing under the laws of the State of **California**, having its principal place of business at **555 Codoni** Avenue, **P.O.** Box 4938, Modesto, **California** 953524938 (**“Assignee”**), all of the intellectual property Assignor had adopted, used and was **using** as of the effective date of this Assignment, including without limitation, the intellectual property represented by the United **States Plant** Variety Protection Certificates of Assignor identified on Schedule A hereto (collectively, the **“Property”**); and

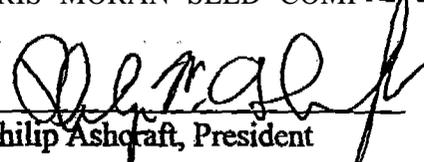
WHEREAS, on the date hereof, Assignee has changed its name to “Harris Moran Seed Company”;

NOW, **THEREFORE**, effective by this instrument as of the close of business on June **30, 1997**, and for good and valuable consideration, receipt of which is hereby **acknowledged, Assignor** hereby assigns to Assignee any **and all** right, title and interest worldwide in and to the Property **and** any and **all recordings** thereof, including, but not limited to, the use of the Property in any manner, **all benefit of any** and all prior use of the Property, and **any** and all-tights to initiate claims-or **proceedings for** past, present or **future** infringements of Assignor’s rights, title and interest in and to the Property.

Dated: as of June **30, 1997**

HARRIS MORAN SEED COMPANY

By:


Philip Ashcraft, President

CERTIFICATE OF AMENDMENT
OF THE
ARTICLES OF INCORPORATION
OF

FERRY-MORSE SEED COMPANY (CALIFORNIA)
(a California corporation)

11100010

ENDORSED
FILED

In the office of the Secretary of State
of the State of California

JUN 30 1997

Bill Jones
BILL JONES, Secretary of State

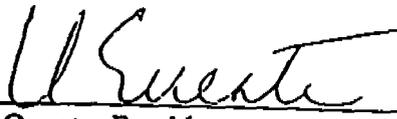
To the Secretary of state
State of California

Pursuant to the provisions of the General Corporation Law of the State of California, the undersigned officers of FERRY-MORSESEED COMPANY (CALIFORNIA), a California corporation (the "Corporation"), do hereby certify as follows:

1. The name of the Corporation is **Ferry-Morse** Seed Company (California).
2. **Article** One of the Corporation's **Articles** of Incorporation, which relates to the **name of the Corporation**, is hereby amended **in** its entirety to **read** as follows:
 - One. The name of this **Corporation is:**
HARRIS MORAN SEED COMPANY.
3. The amendment herein provided for **has** been approved by the Corporation's Board of Directors.
4. **The amendment herein provided for was approved by the written consent of the Corporation's sole shareholder in accordance v&h the provisions of Section 902 of the California General Corporation Law. The total number of outstanding shares of the corporation is 5,000.**

IN WITNESS WHEREOF, each of the undersigned does hereby declare under the penalty of perjury that he or she signed the foregoing Certificate of Amendment as of June 30,

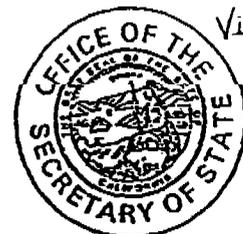
1997, in **the** Town of Modesto, State of California, in the official capacity set forth beneath **his** or her **signature** and that the statements set forth in this certificate are **true** of his or her own **knowledge**.


Yves Queste, President


Helen Andritsakis, Secretary

State of California

SECRETARY OF STATE



I, **BILL JONES**, Secretary of State of the State of California, hereby certify

That the attached transcript has been compared with the record on file in this office, of which it purports to be a copy, and that it is full, true and correct.

IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this

JUN 30 1957



Bill Jones

Secretary of State