No. 7400087

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

World Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF seventeen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS IED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT

'Profit 75'

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* 18th *day of* April *in the year of our Lord one thousand nine hundred and* seventy-five

Earl L Butz

Secretary of Agriculture

PLANT VARIETY PROTECTION OFFICE · UNITED STATES DEPARTMENT OF AGRICULTURE

Attest:

S G Rollin

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

7400087

FORM GR-470
(2-12-71)

UNITED STATES DEPARTMENT OF AGRICULTURE
CONSUMER AND MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1. VARIETY NAME OR TEMPORARY DESIGNATION Variety name - Profit 75 Temporary Des. - MP-19 B	2. KIND NAME Hard Red Spring Wheat	FOR OFFICIAL USE ONLY PVPO NUMBER 7400087
3. GENUS AND SPECIES NAME Triticum aestivum L. em. Thell. ssp. Vulgare (Vill., Host) MacKey.	4. FAMILY NAME *(Botanical)* Gramineae 5. DATE OF DETERMINATION October, 1971	FILING DATE 4.8.74 / TIME 4 P.M. FEE RECEIVED $ 750.00 / CHARGES
6. NAME OF APPLICANT(S) WORLD SEEDS, INC.	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* 2605 Oceanside Blvd. Oceanside, California 92054	8. TELEPHONE AREA CODE AND NUMBER (714) 757-5647
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)* Corporation	10. STATE OF INCORPORATION Minnesota	11. DATE OF INCORPORATION Aug. 1, 1972

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

Alfredo Garcia
Vice-President - Research
World Seeds, Inc.
2605 Oceanside Blvd.
Oceanside, California 92054

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- [X] 12A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52, P.L. 91-577)*
- [X] 12B. Exhibit B, Botanical Description of the Variety
- [X] 12C. Exhibit C, Objective Description of the Variety
- [X] 12D. Exhibit D, Data Indicative of Novelty
- [X] 12E. Exhibit E, Statement of the Basis of Applicant's Ownership

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable. *(See Section 52, P.L. 91-577).*

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), P.L. 91-577) (If "Yes," answer 14B and 14C below.)* [X] YES [X] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [X] YES [ ] NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? 3

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act (P.L. 91-577).

April 3, 1974
(DATE)

Alfredo Garcia
(SIGNATURE OF APPLICANT)
Vice President - Research

(DATE)

(SIGNATURE OF APPLICANT)

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2. F1 Generation.

As mentioned earlier, the cross from which Profit 75 originated was made at C. I. A. N. O. in 1964-1965, and the F1 was planted in the same location the following growing season of 1965-1966.

3. F2 Generation.

The F2 was harvested in bulk in May of 1966 and part of the seed was immediately shipped to Grand Forks, North Dakota, and space planted in six rows, 20' x 22" each. Under a numbering system which allows room for 99,999 future possible crosses, the F2 was was given the number:

F2 Bulk: 6W00640

in which 6W stands for hexaploid wheat, and 00640 the number assigned to this particular cross.

Following the PEDIGREE METHOD of individual plant or head selections we pulled eight single plants of which seven were discarded because of poor grain development. The following statement was written down in the field book during harvesting, "Good female for dry-land farming."

4. F3 Generation.

Out of the eight F3 single plants selected, only Plant #6 was saved. This must be mentioned in order to write down the F3 pedigree as follows:

F3, 6W00640-26

Number 2 will always precede all selections made in North Dakota.

From the F3 single plant we seeded six rows in Salinas, California, in 1966-1967. Seeds were spaced out in rows 10 feet long and 12 inches wide each. We selected 10 plants out of this population.

5. F4 Generation.

The 10 individual F4 plants were seeded in Gonzalez, California, in 1967-1968. Each plant was seeded in two rows, 10 feet long by 12 inches wide each. Since further selections were made out of plant #16, the pedigree is as follows:

F4, 6W00640-26-16

Two individual plant selections were pulled out of Plant #26 above. #1 will always precede selections made in California.

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6. F5 Generation.

The two individual F5 plants were not planted until 1969 in Grand Forks, North Dakota. Each plant was seeded in four rows, 22 feet long by 22 inches wide each. In order to be able to pull single plants, approximately 70 seeds were planted in each row. We selected 10 plants out of Plant #12, so the pedigree is written down below:

F5, 6W00640-26-16-12

7. F6 Generation.

Out of the 10 individual F6 plants selected, three were discarded because of poor grain development, and the rest were planted under irrigation in Holtville, California, in 1969-1970. We planted three rows per plant and 80 seeds per row. Individual rows were 20 feet long and 14 inches wide. At harvesting we selected four individual plants out of Plant #23, so the pedigree is as follows:

F6, 6W00640-26-16-12-23

8. F7 and F8 Generations.

The four individual F7 plants were planted in Grand Forks, North Dakota, in 1970. We planted four rows per plant and approximately 80 seeds per row. Individual rows were 20 feet long and 22 inches wide each. The four rows from Plant #12 were homozygous for general agronomic characteristics and rust reactions, so they were harvested in bulk, but not before making three individual plant selections. These selections are being kept separately in the breeding program and are not reflected in the two following pedigrees:

F7, 6W00640-26-16-12-23-12

Since the four rows of the F7 generation were bulked the final pedigree for Profit 75 stands as follows:

F8 Bulk, 6W00640-26-16-12-23-12-2B,

where the letter "B" stands for Bulk.

a. Preliminary yield trials were planted in Holtville, California, in 1970-1971, and in Grand Forks, North Dakota, in 1971 as outlined in the Summary below.

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10. Summary of Breeding History.

Parents: F6, [(Sonora 64 x (Dwarf Selkirk^6-Dwarf Andes^3)] x Pembina

Pedigree: 6W00640-26-16-12-23-12-2B

Generation	Planted At:	Year	Generation Harvested	Year	Quality Evaluation
F1	C. I. A. N. O.	1965-1966	F2	1966	None
F2 Bulk	Grand Forks, N. D.	1966	F3	1966	None
F3	Salinas, Calif.	1966-1967	F4	1967	None
F4	Gonzalez, Calif.	1967-1968	F5	1968	None
F5	Grand Forks, N. D.	1969	F6	1969	None
F6	Holtville, Calif.	1969-1970	F7	1970	None
F7	Grand Forks, N. D.	1970	F8 Bulk	1970	None
F8 Bulk	Holtville, Calif.	1970-1971	F8 Bulk	1971	None
F8 Bulk	Grand Forks, N. D.	Preliminary Yield Trial, 1971 Yield Trial	F8 Bulk	1971	Preliminary
F8 Bulk	Holtville, Calif.	1971-1971 Yield Trial plus Preliminary Increase as MP-19 B	F8 Bulk	1972	None

Additional exhibit for PV Application 740087, Wheat, 'Profit 75'

Submitted May 7, 1974

12A. (1) Type and Frequency of Variants.

Profit 75 has been found to be free of variants during reproduction and multiplication. Any variants found during the above two processes may be explained on the basis of mechanical seed mixtures with other wheats during planting and/or harvesting and also to natural hybrids as a result of field crosses with other wheat varieties.

12A. (2) Evidence of Stability.

The best evidence of the stability of Profit 75 is given under 12D. (2) of this report. Agronomic characteristics such as heading, physiologic maturity and height are very stable whether the variety is growing under irrigation or under dry-land farming conditions.

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Botanical Classification of Profit 75 (1)

I. Plant Characters:

1. Maturity: Early
2. Height: Mid-tall
3. Habit of growth: Spring habit

II. Stem Characters:

1. Color: White
2. Strength: Mid-strong
3. Hollowness: Hollow

III. Spike Characters:

1. Awnedness: Awned; awns white, average of extreme lengths, 76 mm.
2. Shape: Oblong (Strap)
3. Density: Mid-dense
4. Position: Inclined
5. Shattering: Resistant

IV. Glume Characters: (glabrous)

1. Color: White
2. Length: Long
3. Width: Wide

V. Shoulder Characters:

1. Width: Narrow
2. Shape: Square to Elevated

7400087

VI. Beak Characters:

1. Width: Narrow

2. Shape: Acuminate

3. Length: Average, 6mm; maximum, 10 mm; minimum, 5 mm.

VII. Kernel Characters:

1. Color: Red

2. Length: Mid-long

3. Texture: Hard

4. Shape: Ovate

VIII. Germ Characters:

1. Size: Mid-sized

IX. Crease Characters:

1. Width: Mid-wide

2. Depth: Deep

X. Cheek Characters:

1. Shape: Rounded

XI. Brush Characters:

1. Size: Mid-sized

2. Length: Mid-long

3. Collar: Non-collared

(1) Reference consulted: BRIGGLE, L. W. and L. P. REITZ, 1963. Classification of Triticum species and of Wheat Varieties Grown in the United States. Technical Bulletin 1278, U. S. D. A.

Variety Name: Profit 75
Temporary Designation: MP-19 B

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-6
(2-15-73)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT *(TRITICUM SPP.)*

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
WORLD SEEDS, INC.

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
2605 Oceanside Blvd.
Oceanside, California 92054

FOR OFFICIAL USE ONLY
PVPO NUMBER 7400087
VARIETY NAME OR TEMPORARY DESIGNATION

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. KIND:
[1] 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

2. TYPE:
[1] 1 = SPRING 2 = WINTER 3 = OTHER *(Specify)* _____
[2] 1 = SOFT 2 = HARD 3 = OTHER *(Specify)* _____
[2] 1 = WHITE 2 = RED 3 = OTHER *(Specify)* _____

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:
[0][4][5] FIRST FLOWERING
[0][5][0] LAST FLOWERING

4. MATURITY *(50% Flowering)*:
[ ][ ] NO. OF DAYS *EARLIER* THAN .....
[0][2] NO. OF DAYS *LATER* THAN .....
[ ] [3] 1 = ARTHUR 2 = SCOUT 3 = CHRIS 4 = LEMHI 5 = NUGAINES 6 = LEEDS

5. PLANT HEIGHT *(From soil level to top of head)*:
[0][7][4] CM. HIGH
[ ][ ] CM. TALLER THAN .....
[1][5] CM. SHORTER THAN .....
[ ] [3] 1 = ARTHUR 2 = SCOUT 3 = CHRIS 4 = LEMHI 5 = NUGAINES 6 = LEEDS

6. PLANT COLOR AT BOOTING *(See reverse)*:
[2] 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

7. ANTHER COLOR:
[1] 1 = YELLOW 2 = PURPLE

8. STEM:
[1] Anthocyanin: 1 = ABSENT 2 = PRESENT
[2] Waxy bloom: 1 = ABSENT 2 = PRESENT
[2] Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT
[1] Internodes: 1 = HOLLOW 2 = SOLID
[0][5] NO. OF NODES *(Originating from node above ground)*
[0][9] CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

9. AURICLES:
[1] Anthocyanin: 1 = ABSENT 2 = PRESENT
[1] Hairiness: 1 = ABSENT 2 = PRESENT

10. LEAF:
[2] Flag leaf at booting stage: 1 = ERECT 2 = RECURVED 3 = OTHER *(Specify)*: _____
[2] Flag leaf: 1 = NOT TWISTED 2 = TWISTED
[1] Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT
[2] Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT
[1][9] MM. LEAF WIDTH *(First leaf below flag leaf)*
[3][1] CM. LEAF LENGTH *(First leaf below flag leaf)*:

12D. (8) Novelty.

Profit 75 looks more similar to Red River 68 than to any other wheat variety. Their contrasting characters are listed below:

Character	Profit 75	Red River 68
1. Stem		
a. Waxy bloom	Present	Absent
b. Internode length (between flag leaf and leaf below)	9 cm.	13 cm.
2. Leaf		
a. Flag Leaf (Booting)	Recurved	Erect
b. Width	19 mm.	14 mm.
c. Length (first leaf below flag leaf)	31 cm.	24 cm.
3. Spike		
a. Awns, white, maximum lengths	76 mm.	85 mm.
b. Shape	Oblong (Strap)	Tapering (Fusiform)
4. Glume		
a. Width	Wide, 4 mm. average	Mid-wide, 3.6 mm. average
5. Shoulder		
a. Shape	Square to Elevated	Oblique
6. Beak		
a. Length,		
Average	6 mm.	3.2 mm.
Maximum	10 mm.	5.0 mm.
Minimum	5 mm.	2.0 mm.

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7400087

12E. Exhibit E, Statement of the Basis of Applicant's Ownership.

The applicant is the employer of the breeder.

No. 7400087

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

World Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

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WHEAT

[SEAL]

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 this day of in the year of our Lord one thousand nine hundred and

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

BUREAU OF ENGRAVING AND PRINTING

FORM GR-470 (REVERSE)

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $50.00 fee to U.S. Dept. of Agriculture, Consumer and Marketing Service, Grain Division, Hyattsville, Maryland 20782. Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

RECEIVED APR 8 1976 U.S. DEPARTMENT OF AGRICULTURE AMS, GRAIN DIV. PVPO

ITEM

5 Insert the date the applicant determined that he had a new variety.

12a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.

RECEIVED APR 8 1976 U.S. DEPARTMENT OF AGRICULTURE AMS, GRAIN DIV. PVPO

12b First, give any special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.

12c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

12d Provide complete data indicative of novelty. Seed and plant specimens may be submitted and seeds submitted may be sterile. Where possible, include photographs of plant comparisons, chemical tests, etc.

12e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

7400087

Origin and Breeding History of Profit 75

A. Origin.

Profit 75, a hard red spring wheat variety originated from a cross made in 1964-1965 at C.I.A.N.O., Cd. Obregon, Sonora, Mexico.

B. Breeding History, followed step by step.

1. Parents

Profit 75 was selected from a cross between an F6 and Pembina. The cross was made in the following direction:

F6, [Sonora 64 x (Dwarf Selkirk^{6}-Dwarf Andes^{3})] x Pembina.

Sonora 64. A semi-dwarf spring wheat released in Mexico in 1964, it originated from the parents:

(Yaktana 54 x Norin 10-Baart) x Yaqui 54^{2}.

Dwarf Selkirk. We believed this line was developed by the wheat workers of the University of Manitoba by crossing:

(Norin 10-Baart) x Selkirk^{6}

Dwarf Andes. The tall standard Andes was selected in Colombia from a cross made in Mexico involving:

(Kentana x Frontana) x Mayo^{K46}48

The Dwarf Andes was developed in Mexico by crossing:

(Norin 10 x Baart) x Andes^{3}

Pembina. This tall straw spring wheat variety was produced and released in Canada in 1959. Its parentage is very similar to those of Selkirk, as shown below:

Pembina: Thatcher x [(McMurachy x Exchange) x Redman^{3}]
Selkirk: [(" ") x "]

Letter of aug. 8, 1974

7400087

FORM GR-470-6 (REVERSE)

11. HEAD:

[3] Density: 1 = LAX 2 = DENSE 3 = Mid-dense

[2] Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE 4 = OTHER *(Specify)* _____

[4] Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

[1] Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED 5 = BROWN 6 = BLACK 7 = OTHER *(Specify)*: _____

[0 8.5] CM. LENGTH [1 2] MM. WIDTH

12. GLUMES AT MATURITY:

[3] Length: 1 = SHORT *(CA. 7 mm.)* 2 = MEDIUM *(CA. 8 mm.)* 3 = LONG *(CA. 9 mm.)*

[3] Width: 1 = NARROW *(CA. 3 mm.)* 2 = MEDIUM *(CA. 3.5 mm.)* 3 = WIDE *(CA. 4 mm.)*

[4-5] Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED 4 = SQUARE 5 = ELEVATED 6 = APICULATE

[3] Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

13. COLEOPTILE COLOR:

[1] 1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

[1] 1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

[3] 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED:

[1] Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL

[1] Cheek: 1 = ROUNDED 2 = ANGULAR

[2] Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

[1] Brush: 1 = NOT COLLARED 2 = COLLARED

[4] Phenol reaction *(See instructions)*: 1 = IVORY 2 = FAWN 3 = LT. BROWN 4 = BROWN 5 = BLACK

[3] Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER *(Specify)* _____

[0 6] MM. LENGTH [0 3] MM. WIDTH [3 7] GM. PER 1000 SEEDS

17. SEED CREASE:

[~~3~~ 2] Width: 1 = 60% OR LESS OF KERNEL 'WINOKA' 2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

[3] Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'CHRIS' 3 = 50% OR LESS OF KERNEL 'LEMHI'

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[2] STEM RUST *(Races)* _____ [1-2] LEAF RUST *(Races)* _____ [0] STRIPE RUST *(Races)* _____ [0] LOOSE SMUT

[0] POWDERY MILDEW [0] BUNT [ ] OTHER *(Specify)* _____

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0] SAWFLY [0] APHID *(Bydv.)* [0] GREEN BUG [0] CEREAL LEAF BEETLE

[ ] OTHER *(Specify)* _____

HESSIAN FLY RACES: [0] GP [ ] A [ ] B [ ] C [0] D [ ] E [ ] F [ ] G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering		Seed size	
Leaf size		Seed shape	
Leaf color		Coleoptile elongation	
Leaf carriage		Seedling pigmentation	

*see letters of april 24, 1974 & may 3, 1974

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(a) L.W. Briggle and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.

(b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. *(See attachment.)*

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.