No. 8500107

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

HybriTech Seed International, 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 eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT TY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS F CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS S THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT

'Pony'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington, D. C. *this* 30th *day of* December *in the year of our Lord one thousand nine hundred and* eighty-eight.

Attest:

Kenneth H. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Richard E. Lyng
Secretary of Agriculture

APPROVAL EXPIRES 4-30-85

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

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

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

1. NAME OF APPLICANT(S)
HYBRITECH SEED INTERNATIONAL, INC.
~~Rohm and Haas Seeds Inc.~~

2. TEMPORARY DESIGNATION
77W4505

3. VARIETY NAME
Pony

4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code)
5912 N. MERIDIAN
WICHITA, KS 67204
~~Independence Mall West~~
~~Philadelphia, PA 19105~~

5. PHONE (Include area code)
(316) 755-1249
~~(215) 592-3113~~

FOR OFFICIAL USE ONLY

PVPO NUMBER
8500107

6. GENUS AND SPECIES NAME
Triticum aestivum L.

7. FAMILY NAME (Botanical)
Gramineae

FILING
DATE 4/12/85
TIME 8:30 [x] A.M. [ ] P.M.

8. KIND NAME
Common Wheat

9. DATE OF DETERMINATION
September, 1980

FEES RECEIVED
AMOUNT FOR FILING $ 1,800
DATE 4/12/85
AMOUNT FOR CERTIFICATE $ 200.00
DATE October 27, 1988

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

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
Delaware

12. DATE OF INCORPORATION
February, 1983

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
~~Dr. James E. Stroike~~ ~~POLLY E. RAMSTAD, ESQ.~~
~~Rohm and Haas Seeds, Inc.~~ JOHN ERICKSON, WHEAT RESEARCH DIRECTOR
~~Independence Mall West~~ HYBRITECH SEED INTERNATIONAL, INC.
~~Philadelphia, PA 19105~~ WICHITA, KS 67204
PHONE (Include area code): (316) 755-1249 ~~(215) 592-3113~~

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED
a. [X] Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
b. [X] Exhibit B, Novelty Statement.
c. [X] Exhibit C, Objective Description of Variety *(Request form from Plant Variety Protection Office.)*
d. [X] Exhibit D, Additional Description of Variety.
e. [X] Exhibit E, Statement of the Basis of Applicant's Ownership. (SEE EXHIBIT A)

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act.)* [X] Yes *(If "Yes," answer items 16 and 17 below)* [X] No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
[ ] Yes [ ] No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
[X] Foundation [X] Registered [X] Certified

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?
[ ] Yes *(If "Yes," give date)*
[X] No

19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
[X] Yes *(If "Yes," give names of countries and dates)*
United States, September, 1984
[ ] No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

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

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

SIGNATURE OF APPLICANT
James E. Stroike
DATE 3/25/85

SIGNATURE OF APPLICANT
DATE

FORM WA-470 (7-84) (Edition of 3-84 is obsolete.)

EXHIBIT A

ORIGIN AND BREEDING HISTORY OF THE VARIETY

Pony is the result of hybridization, individual plant selection, and individual head selection from the cross: Scout*5/Agent//Sturdy made by the Northrup King Company. Our pedigree for this variety is N5065-15K-1K-OK. Its experimental code was 77W4505.

We made the cross in the greenhouse at Eden Prairie in 1971. The female parent was Scout*5/Agent selection. The F_1 was grown in the greenhouse in 1972 and assigned the cross number N5065. In 1973-74 the F_2 was space-planted at Pratt, Kansas. Plant progeny rows in the F_3 and F_4 were grown at Pratt in 1975 and 1976 respectively. In 1976 the F_4 row at Pratt was harvested in bulk to provide seed for 1977 preliminary yield trials (F_5) at Pratt, Kansas and York, Nebraska. Intermediate yield trials were planted in 1977-78 by using bulk seed from the preliminary trial.

Twelve heads were selected from the 1977 Kansas trial and planted at Yuma, Arizona in 1977-78 as F_6 head-rows to begin purification program. Seven head-rows were harvested for further testing in advanced yield trials in 1979 and 1980. Based on yield data and agronomic notes one head-row (78AWH11880) was retained for testing in 1980. A small multiplication of the F_6 head-row was planted as an F_7 at Yuma in 1978-79 (79AWH20281). In 1980 a decision was made to increase this selection as breeders seed (81AWH31004). In 1981-82 breeders seed was again increased at Yuma as 82AWH40002.

Pony, 77W4505, was entered in the 1982-83 Southern Regional Performance Nursery for testing experimental hard red winter wheat varieties in the Great Plains. In 1981-82 SRPN trials with coefficients of variation 17% or less the average yield of Pony was 4272 kg/ha or 118% of Scout 66. The 1982-83 SRPN yield average for pony across 21 sites with coefficients of variation 17% or less was 3965 kg/ha or 117% of Scout 66.

The variety appears uniform and stable. There are no unusual or characteristic variations that have been observed to date. Foundation seed was produced in Texas during 1982-83. This lot, 7645, was inspected and approved by the Texas Department of Agriculture seed certification program.

In July, 1984, Rohm and Haas Seeds Inc. purchased the hard red winter wheat breeding germ plasm from the Northrup King Company The ownership of Pony was transferred to Rohm and Haas Seeds at this time.

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EXHIBIT B

NOVELTY STATEMENT

Pony is most similar to "Vona" but differs in winterhardiness, field reponse to leaf rust (Puccinia recondita), and glume shoulder shape. Winter survival for Pony has been rated better than Vona when differentials have occurred. Leaf rust responses and severities have been observed to differ from Vona in the field comparisons made from 1978-1983. It is postulated Pony has resistance (LR24) from Agent and adult plant resistance from Sturdy which Vona does not possess. Glume shoulders of Pony and Vona differ in shape. The glume shoulders of Pony are elevated to apiculated whereas, Vona has glume shoulders that are oblique.

Table 1. Heading dates for Pony in comparison to check varieties grown in replicated small plot trials at York, NE.

	Heading Date (Days from Jan. 1)		
Year	Pony	Centurk[1/]	Vona
1978	149	151	149
1979	150	153	150
1980	141	145	141
1982	144	151	147
1983	149	156	149
5 - Year Average	146.6	151.2	147.2

1/ Centurk 78 check replaced Centurk in 1980-83 trials.

Table 2. Relative maturity for Pony in comparison to check varieties grown in replicated small plot trials at York, NE.

Year	Relative Maturity (1-9)1/		
	Pony	Centurk 78	Vona
1980	3	5	4
1981	5	5	4
1983	3	4	3
3 - Year Average	3.7	4.7	3.7

1/ Relative maturity based on 1-9 scale where 1=very early and 9=very late.

Table 3. Height for Pony in comparison to check varieties grown in replicated small plot trials at York, NE.

	Height (cms)		
Year	Pony	Centurk[1/]	Vona
1978	85	105	90
1979	95	95	91
1980	89	104	87
1982	87	101	85
1983	108	120	109
5 - Year Average	92.8	105.0	92.4

1/ Centurk 78 check replaced Centurk in 1980-83 trials.

Table 4. Winter survival ratings for Pony in comparison to check varieties grown in replicated small plot trials at York, NE.

	Winter Survival (0-9)[1/]		
Year	Pony	Centurk[2/]	Vona
1978	8	8	5
1979	8	9	8
1980	9	9	9
1982	9	9	8
4 - Year Average	8.5	8.8	7.5

1/ Winter survival scale 0-9 where 9 is best with 90-100% survival.

2/ Centurk 78 check replaced Centurk in 1980-1982 trials.

Table 5. Field ratings for leaf and stem rust for Pony in comparison to check varieties grown in replicated small plot trials at York, NE.

	Leaf Rust			Stem Rust		
Year	Pony	Centurk1/	Vona	Pony	Centurk1/	Vona
1978	20MS	40S	40MS	R	R	R
1979	TR	10S	10S	R	R	R
1982	R	5MR	20S	R	R	R
1983	TMS	10S	10S	TS	TS	TS

1/ Centurk 78 check replaced Centurk in 1982-83 trials.

FORM APPROVED: OMB NO. 40-R3822

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

EXHIBIT C
(Wheat)

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

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
Rohm and Haas Seeds Inc.

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
Independence Mall West
Philadelphia, PA 19105

FOR OFFICIAL USE ONLY
PVPO NUMBER 8500107
VARIETY NAME OR TEMPORARY DESIGNATION PONY

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:
[2] 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:
[ ][ ][ ] FIRST FLOWERING
[ ][ ][ ] LAST FLOWERING

4. MATURITY *(50% Flowering)*:
[0][4] NO. OF DAYS *EARLIER* THAN ..... [7] 1 = ARTHUR 2 = SCOUT 3 = CHRIS
[0][0] NO. OF DAYS *LATER* THAN ..... [8] 4 = LEMHI 5 = NUGAINES 6 = LEEDS
7=Centurk 8=Vona

5. PLANT HEIGHT *(From soil level to top of head)*:
[0][8][9] CM. HIGH
[0][1] CM. TALLER THAN ..... [8] 7=Centurk 8=Vona
[1][2] CM. SHORTER THAN ..... [7] 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
[ ] Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT
[1] Internodes: 1 = HOLLOW 2 = SOLID
[0][3] NO. OF NODES *(Originating from node above ground)*
[2][0] CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

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

10. LEAF:
[1] 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][4] MM. LEAF WIDTH *(First leaf below flag leaf)*
[2][8] CM. LEAF LENGTH *(First leaf below flag leaf)*:

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ES 9/15/88

11. HEAD:

[3] Density: 1 = LAX 2 = DENSE 3 = MIDDENSE

[1] 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] CM. LENGTH

[0 9] MM. WIDTH

12. GLUMES AT MATURITY:

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

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

[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:

[2] 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 5] MM. LENGTH

[0 3] MM. WIDTH

[ ] GM. PER 1000 SEEDS

17. SEED CREASE:

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

[1] 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)* RTQO, TNMH

[2] LEAF RUST *(Races)* _____

[0] STRIPE RUST *(Races)* _____

[0] LOOSE SMUT

[1] 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:

[2] GP [0] A [1] B [0] C

[0] D [0] E [0] F [0] G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

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

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.

APR 12 1985

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EXHIBIT D

ADDITIONAL DESCRIPTION OF THE VARIETY

Pony is a cultivar of Triticum aestivum L. with winter growth habit. The kernels are hard, red, and ovate in shape with rounded cheeks. Kernel length is midlong. The brush is midlong and not collared. Kernel characteristics are similar to "Sturdy". Phenol reaction of the seed is brown. The spike is awned, mid-dense, and tapered in shape. The glumes are white, glabrous, midlong, and narrow. Glume shoulders are elevated to apiculated. Beak lengths are 3 mm to 10 mm long.

The coleoptile color is white and seedling anthocyanin is absent. Juvenile plant growth is semi-erect. Plant color at booting is green. Waxy bloom is present on the stem and flag leaf sheath. The auricles have no anthocyanin. The stem is hollow and has no anthocyanin. Generally three nodes originate from the node above ground.

Pony is a semidwarf wheat with height similar to Vona. Maturity is early like Vona. The variety is susceptible to soil borne mosaic virus and to the Great Plains biotype of Hessian Fly (Mayetiola destructor). Field ratings for leaf rust (Puccinia recondita) indicate Pony has moderate resistance. Seedling stem rust reactions to physiologic races of (Puccinia graminis f. sp. tritici) have been conducted by the Cereal Rust Laboratory. The following reactions were observed to these isolates:

Isolate	Reaction to Isolate
15B-2	
TNMH	;
TNMK	2-
151	
QFBS	2-
QFHS	2
11-32-113	
RHRS	2-
RSHS	2-
RTQQ	;

Milling and baking quality is satisfactory. Bake mix and absorption are within the range of Centurk and Vona.

Table 6. Quality characteristics of Pony and checks from samples grown at York, NE in 1979 and 1980.

Characteristics	1979			1980		
	Pony	Centurk	Vona	Pony	Centurk 78	Vona
Wheat Protein	13.45	13.80	13.10	14.20	13.65	13.20
Test Weight	60.9	62.0	62.2	61.3	62.3	61.8
Milling Ext. %	68.3 G-	68.6 G-	68.9 G-	71.2 G	68.7 G-	71.4 G
Farinograph						
Absorption	58.0	59.3	60.4	59.0	60.8	60.6
Peak	8.00	6.00	8.25	8.75	8.00	6.75
Stability	24.00	13.50	28.00	17.50	22.00	16.50
MTI	15	45	20	25	20	25
Valorimeter	74	64	74	75	72	68
Flour						
Ash	.368	.380	.355	.380	.357	.330
Protein	12.24	12.60	11.90	13.20	12.45	12.20
Bake						
Absorption	60.5 F+	63.5 G	63.0 G	62.0 G-	63.0 G	63.5 G
Mix	6.50 G-	6.75 G-	5.75 G-	5.00 VG	5.75 G-	4.25 G
Dough	6 G	6 G	6 G	5 G-	4 F	6 G
Loaf Vol. cc	985 VG-	985 VG-	1000 VG	940 G	895 G-	955 G
Crumb Grain	6 G	7 VG-	6 G	4 F	4 F	6 G
Crumb Texture	6 G	6 G	6 G	5 G-	4 F	6 G
Crumb Color	97 G	97 G	97 G	97 G	97 SD	97 G
Bake Score	30 G	31 G	31 G	28 G-	22 F	30 G
Overall Score	57 G-	60 G-	61 G-	56 G-	50 G-	60 G

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Table 7. Quality Characteristics of Pony and checks at Pratt, KS in 1983.

Characteristics	Pony		Centura		Sage		Arkan		Colt	
Wheat Protein	12.88		13.19		13.22		13.72		12.27	
Test Weight	62.3		62.9		63.5		61.6		61.8	
Milling Ext. %	69.8	G-	71.1	G	73.5	G	72.3	G	72.9	G
Farinograph										
Absorption	60.0		61.2		63.2		61.4		58.2	
Peak	5.50		8.25		4.00		7.25		4.00	
Stability	11.00		17.00		6.00		11.00		7.00	
MTI	30		20		50		35		60	
Valorimeter	63		73		54		67		56	
Flour										
Ash	.424		.409		.429		.411		.407	
Protein	11.68		11.86		11.80		11.47		11.56	
Bake										
Absorption	64.0	G	64.0	G	66.0	G	64.5	G	61.0	G-
Mix	5.00	VG	5.50	VG	3.25	G-	4.00	G	4.00	G
Dough	6	G	6	G	5	G-	6	G	6	G
Loaf Vol. cc	920	G	960	G	970	G	950	G	890	G-
Crumb Grain	6	G	6	G	5	G-	5	G-	5	G-
Crumb Texture	6	G	6	G	5	G-	6	G	5	G-
Crumb Color	97		97+		96+		96+		97	
Bake Score	32	G	32	G	26	G-	29	G-	27	G-
Overall Score	61	G	63	G+	51	G-	56	G-	53	G-

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ASSIGNMENT

WHEREAS, Rohm and Haas Seeds Inc., a Delaware corporation, with its principal offices at Independence Mall West, Philadelphia, Pennsylvania 19105 ("Rohm and Haas Seeds"), is the owner of the entire right, title and interest to the following varieties, U.S. Plant Variety Certificates and applications therefore:

Variety	Certificate No.	Grant Date
Prodax	7500005	06/30/75
Solar	7800010	03/29/79
711	8100013	12/10/81
Walera	8200002	06/17/82
715	8300068	01/31/86
835	8200006	03/11/82
817	8200033	06/17/82
830	8200094	09/23/82
Norak	8500105	03/11/88

	Application No.	Filing Date
Bighorn	8500109	04/12/85
✓ Pony	8500107	04/12/85
Rodeo	8500106	04/12/85

WHEREAS, HybriTech Seed International, Inc., a Delaware corporation and wholly-owned subsidiary of Monsanto Company, with its principal offices at 800 North Lindbergh Boulevard, St. Louis, Missouri 63167 ("HybriTech") is desirous of acquiring the entire interest in the aforementioned varieties, certificates and applications;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Rohm and Haas Seeds does hereby sell, assign and transfer unto HybriTech, the entire right, title and interest in and to the varieties, certificates and applications for its use and benefit and for its successors and assigns.

IN TESTIMONY WHEREOF, Rohm and Haas Seeds intending to be legally bound has caused this assignment to be executed by its duly authorized officer.

ROHM AND HAAS SEEDS INC.

By Howard A. Myllykoski

Title Vice President

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COMMONWEALTH OF PENNSYLVANIA)
) SS
COUNTY OF PHILADELPHIA)

On this 25 day of July, 1988, before me appeared Howard A. Mergelkamp Jr of Rohm and Haas Seeds Inc., the person who signed this instrument, who acknowledged that he signed it as a free act on behalf of Rohm and Haas Seeds, Inc. with authority to do so.

Elaine Sherman
Notary Public

ELAINE SHERMAN
Notary Public, Phila., Phila. Co.
My Commission Expires June 1, 1992

RECEIVED
USDA AMS
SEP 15 1988
Plant Variety
Protection Ofc

15

(375R/371R)