

2000 MARYLAND WHEAT & BARLEY VARIETY PERFORMANCE TRIALS

Wheat and barley variety trials were conducted by the Maryland Agricultural Experiment Station and the Department of Natural Resource Science and Landscape Architecture at five locations across Maryland in the 1999/2000 season: (1) Lower Eastern Shore Research and Education Center's (REC) Poplar Hill Facility near Quantico in Wicomico County; (2) Wye REC at Queenstown in Queen Anne's County; (3) Central Maryland REC's Beltsville Facility in Prince George's County; (4) Central Maryland REC's Clarksville Facility in Howard County; and (5) Western Maryland REC's Keedysville Facility in Washington County.

Entries that are generally available to Maryland producers and that are commonly grown in the state are selected each year for the tests. In addition, new varieties, commercial brands, and advanced breeding lines are included in the tests to compare their performance to that of known varieties. Sixty wheat entries and forty barley entries made up the 2000 tests. Two triticale entries (a wheat/rye cross) were included in the wheat trials. Four malting barley entries were included in the barley trials. Please see Table 2 for a list of seed treatments applied to each entry. The following characteristics were evaluated in these trials: yield (adjusted to 13.5% moisture), test weight, moisture content at harvest, heading date, lodging susceptibility, plant height, and disease reaction. Lodging is based on a score of 0 - 10 where 0 = no lodging and 10 = flat. Heading date is determined when 90% of the small grain heads have cleared the boot.

Wheat and barley entries in the respective tests were planted (conventional tillage) at all locations in six-row plots 18 feet in length and later trimmed to 14 feet in randomized blocks with three replications per entry. Both the wheat and barley were planted in 6 inch rows. Wheat was seeded at a rate of 18 seeds per foot of row, which represents a population of approximately 1.3 million plants per acre (or 30 plants/sq. ft.) based on 90% germination. Seeding rate for barley was 96 lb/acre. Plots were mechanically harvested using a small plot combine (Wintersteiger Seedmech Nurserymaster Elite). This year a no-till study was planted at the Beltsville Facility using a Great Plains No-Till Drill funded in part by the Maryland Grain Producers Utilization Board. Plots consisted of 8 rows at a 7 inch row spacing. Seeding rate was 21 seeds per foot of row. Plot length was trimmed to 14 feet in the spring. Other location-specific management factors are summarized in Table 1 on pages 4 and 5.

PRODUCTION YEAR

Planting was delayed at four of the five locations due to wet weather throughout October of 1999. Temperatures were considerably above average for the winter of 1999/2000. There was no winter kill noted in any of our plots. Spring green-up occurred very quickly when temperatures in early March reached the 70's for several days. Temperatures remained above average for much of March. Slightly below average temperatures and well above-average rainfall characterized the weather in April throughout the state. The cool and wet weather encouraged diseases such as powdery mildew and soil-borne mosaic virus. Summer suddenly came the first two weeks of May. Temperatures soared into the high 80s to lower 90s throughout the entire state. All heading occurred almost simultaneously due to the hot, dry conditions. Rust, barley yellow dwarf, scab, and powdery mildew were all present throughout the state. Powdery mildew was even observed on some barley lines in central Maryland. Welcome and needed rains came back to Maryland on May 22; just in time to help with barley grain fill and wheat head development.

RESULTS

Wheat and barley performance data are summarized in the tables which follow. There are tables for individual test locations for both small grain crops as well as regional and State-wide summary tables as appropriate. A three-year summary table for selected entries of each crop is also included (see Index to Tables which follows). The multiple-year data provides additional information on a variety's yielding ability. Plot weight, test weight, and moisture content data were obtained with a HarvestMaster HM-400 attached to the plot combine.

Data were statistically analyzed to determine if differences existed between varieties at each location. At the bottom of each table a mean, a LSD, and a CV are reported. Least significant differences (LSD) were calculated at the 5 % probability level. "NS" in the tables indicates that no statistically significant differences were observed for that character at the 5% probability level. The coefficient of variation (CV) is a measure of field variability in relation to the mean. CV's below 15% are an indication that the precision of the test is good in distinguishing differences between varieties. A CV above 15% indicates other factors than varietal differences are causing variability. These factors can include fertility management, different soil types within the study, low spots in the field, etc.

It is important to note that although small plots tend to exaggerate yields, this increase is consistent for each variety. As an aid to assessing the performance of individual varieties in the test, a relative yield value was calculated. Tables 4 and 12 summarize the relative yields of wheat and barley, respectively, in the 2000 test by expressing them as the percent of the mean yield of all varieties at each location. Therefore, a variety with a relative yield that is consistently greater than 100 is a variety that consistently yields higher than the mean yield of all of the varieties at that location. In these tables, the relative yields of those varieties with an asterisk are not statistically different from the highest yielding variety at that location.

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The cooperation and support offered by commercial seed companies, state crop improvement associations, and several University Experiment Stations in supplying seed and information about varieties are greatly acknowledged. Finally, a special note of appreciation is also extended to the County Extension Educators who disseminate this information.

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The information presented here is also available on the World Wide Web at <http://www.agnr.umd.edu/users/nrsl/crops/wheat/>

Table 1. 2000 Wheat and Barley Variety Test Plot Information.

1. Lower Eastern Shore Research and Education Center (LESREC) - Poplar Hill Facility
Wicomico County - Quantico, MD

Planting dates: 10/26/99 (wheat); 10/26/99 (barley). Harvest dates: 7/5/00(wheat); 6/12/00 (barley)
 Soil Type: Mattapex silt loam. Previous crop: corn. Fertilizer: 25-20-40-24S (Fall) for both crops ; Spring: 40-30-40-24S later followed by 50# N/A (wheat). 60# N/A(barley). Herbicide: Harmony Extra 0.5 oz/A. Insecticide: Warrior
Farm Staff: Ron Mulford, Dave Sockriter, Craig Anderson, Andy Anderson, and Aaron Cooper

2. Wye Research and Education Center (WREC)
Queen Anne's County - Queenstown, MD

Planting dates: 10/13/99 (wheat); 10/15/99 (barley). Harvest dates: 6/26/00 (wheat); 6/9/00 (barley)
 Soil Type: Matapeake silt loam. Previous crop: corn. Fertilizer:15-40-90(Fall) for both crops; Spring: 80# of 30% solution (wheat); 60# N/A (barley)
 Herbicide: Harmony Extra 0.5 oz/A Insecticide: Warrior
Farm Staff: Lew Smith, Mark Sultenfuss, and Reese Stafford

3. Central Maryland Research and Education Center (CMREC) - Beltsville Facility (Hayden Farm)
Prince George's County - Beltsville, MD

CONVENTIONAL TILLAGE STUDY:

Planting dates: 10/29/99 (wheat); 11/1/99 (barley). Harvest dates: 7/1/00 (wheat); 6/21/00 (barley)
 Soil Type: Wheat = Rumford loamy sand; Barley = Sassafras sandy loam. Previous crops: Wheat = Soybeans; Barley = Corn
 Fertilizer: Fall: Wheat = 200# 11-0-45 (= 22-0-90); Barley = 257# 12-12-4 (= 31-31-9)
 Spring: Wheat = 40# N (30-0-0 UAN) followed by another 40# N (30-0-0 UAN)
 Barley = 20# N (30-0-0 UAN) followed by 40# N (30-0-0 UAN)
 Herbicide: Wheat = Harmony Extra in 2 separate applications of 0.3 oz/A; Barley = Harmony Extra 0.5 oz/A

NO-TILL STUDY:

Planting date: 11/1/99. Harvest date: 7/3/00.
 Soil type: Sassafras sandy loam. Previous crop: soybeans. Fertilizer: 257# 12-12-4 (= 31-31-9) + Gramoxone Extra 1.5 pt/A + Activator 90 4.0 oz/A in the Fall. Spring: 40# N (30-0-0 UAN) followed by another 40# N (30-0-0 UAN)
 Herbicide: Harmony Extra in 2 separate applications of 0.3 oz/A
Farm Staff: Kevin Conover, Tracy Runner, Russell Griffith, and Mike Heyser

4. Central Maryland Research and Education Center (CMREC) - Clarksville Facility
Howard County - Clarksville, MD

Planting dates: 10/8/99 (wheat); 10/9/99(barley). Harvest dates: 7/6/00 (wheat); 6/24/00 (barley)
 Soil type: Wheat = Chester silt loam; barley = Elsinboro loam. Previous crop = corn
 Fertilizer: Fall: None. Spring: Wheat = 60# N (18.5 gal. of 30% UAN); Barley = 40# N (12.5 gal. 30% UAN)
 Herbicide: Harmony Extra 0.5 oz/A
Farm Staff: Dave Justice, Tim Ridgley Sr.

5. Western Maryland Research and Education Center (WREC) - Keedysville Facility
Washington County - Keedysville, MD

Planting dates: 10/16/99 (wheat); 10/16/99 (barley). Harvest dates: 7/8/00 (wheat). Barley was not harvested due to the crop's poor condition.
 Soil Type: Hagerstown silt loam (silty variant) Previous Crop: Corn
 Fertilizer: Fall: none. Spring: Wheat = 45# N as Urea; Barley = 40# N as Urea
 Herbicide: Harmony Extra 0.5 oz/A
Farm Staff: Tim Ellis, Dave Wyand, and Debbie Thompson

Table 2. Sources of Winter Wheat, Triticale, and Barley Entries Tested in Maryland, 2000.

Supplier/Address/Local Rep.	Brand	Varieties and Seed Treatments*
AgriBioTech, Inc.; 120 Corporate Park Drive, Henderson, NV 89014; Kevin Lyons (410)310-3486	Hytest	HTW215 (RT), HTW275 (RT), HTW295 (RT)
AgriPro Wheat; 6025 W. 300 S., Lafayette, IN 47905; 1(800)858-4603	AgriPro	Patton (RT), Foster (RA), Mason (RAL), Hickory (RT)
Featherstone Seed, Inc.; 13941 Genito Road, Amelia, VA 23002; Juan Whittington (804)561-3754	Featherstone	520 (B)
Hoffman Seeds, Inc.; 144 Main Street, Landisville, PA 17538; Jim Popham 1(800)776-7929	Hoffman	95 (DXL), Century II (DXL)
Novartis Seeds, Inc.; P.O. Box 340, Hartsville, SC 29551	NK	Coker 9835 (DXL), Coker 9663 (DXL), Coker 9704 (DXL), Coker 9803 (DXL), BL 930390 (DXL)
Pioneer Hi-Bred Intl., Inc.; P.O. Box 280, Mount Joy, PA 17552	Pioneer	2643 (D), 2552 (D)
Resource Seeds, Inc.; 2355 Rice Pike, Union, KY 41091 Local Rep. = Southern States Coop.	Trical	498 (RT)
Southern States Coop.; P.O. Box 26234, Richmond, VA 23260; Jerry Hevner (302)629-7991	FFR	518W (RT), 522W (BT), 555W (BT), 566W (RT), 535W (RT)
UAP; 111 Continental Drive #102, Newark, DE 19713	DynaGro	426 (DXL), 403 (DXL), 422 (DXL), 419 (DXL)
UniSouth Genetics, Inc.; 2640-C Nolensville Road, Nashville, TN 37211; Dale Morris (410)841-5960	USG	3209 (RT), 3408 (RT)
Florida Agric. Exp. Stn.	-----	Arcia (RT)(Triticale), FL 304 (V)
University of Georgia, GA Station, 1109 Experiment St., Griffin, GA 30223	-----	Roberts (RT), Fleming (RT), GA 89482E7 (RT), GA 90524E35 (D), GA 901146E15 (D)
Kentucky Agric. Exp. Stn.	-----	KY 86C-61-8 (RT)
Maryland Agric. Exp. Stn.	-----	Catoctin (RA), MD Breeding Lines (RT)
Ohio Agric. Exp. Stn.	-----	Glory (RT), Freedom (RT)
Pennsylvania Agric. Exp. Stn.	-----	PA 8769-158 (RT),
Virginia Tech and Virginia Crop Imp. Assoc., 9142 Atlee Station Road, Mechanicsville, VA 23111	-----	Madison (RT), Jackson (RT), Pocahontas (RT), Roane (RT), VA Breeding Lines (RT)
University of Georgia, GA Station, 1109 Experiment St., Griffin, GA 30223	-----	GA-Luttrell (RT), GA-Acton (RT)
Kentucky Agric. Exp. Stn.	-----	Barsoy (RT)
Maryland Agric. Exp. Stn.	-----	MD Breeding Lines (RT)
Pennsylvania Agric. Exp. Stn.	-----	Pennco (RT), Pennbar 66 (RT), PA 8649-95 (RT)
Clemson University, 277 Poole Ag. Center, Box 340359, Clemson, SC 29634	-----	Clemson 100 (RT)
Virginia Tech and Virginia Crop Imp. Assoc., 9142 Atlee Station Road, Mechanicsville, VA 23111	-----	Nomini (RT), Starling (RT), Callao (RT), Pamunkey (RT), Wysor (RT), VA Breeding Lines (RT)
USDA, ARS; Aberdeen, ID	-----	Malting Barley Breeding Lines (RT)

*Seed treatment codes in parentheses after each entry are as follows: **RT** = Raxil/Thiram; **RA** = Raxil/Apron, **RAL** = Raxil/Allegiance; **B** = Baytan; **BT** = Baytan/Thiram; **D** = Dividend; **DXL** = Dividend/Apron; **V** = Vitavax.

Table 3. 2000 Maryland State Wheat Variety Performance Trials Averaged Over 5 Locations in Maryland - Quantico, Queenstown, Beltsville, Clarksville, and Keedysville.

Entry	Yield (bu/A)	Test Weight (lbs/bu)	Heading Date	Height (in)	Proj. Powdery Mildew Resis. ¹	Beards ²
VA 96W-250	76.0	56.9	May 4	34.8	R-MR	None
USG 3209	73.3	56.5	May 5	33.4	R	None
GA 901146E15	73.1	54.5	May 4	34.2	MR-MS	None
VA 96W-247	72.5	56.5	May 6	35.1	R-MR	None
VA 97W-358	71.9	56.5	May 4	35.0	R	None
MD 11-52	71.6	56.9	May 5	32.4	R	Tip
Trical 498*	71.2	46.6	April 27	43.4	R	Long
BL 930390	70.3	56.0	May 8	35.9	MR-MS	None
SS FFR-535W	70.3	57.7	May 7	34.7	MR	None
Coker 9803	70.3	58.0	May 5	36.9	MR-MS	None
AGS 2000	69.9	57.5	May 5	38.2	MR	Long
VA 96W-158	69.7	55.7	May 3	38.2	R-MR	None
Coker 9835	69.6	55.7	May 8	34.1	MR-MS	None
Pioneer 2643	69.6	56.1	May 5	32.8	MR	Tip
Pioneer 2552	69.3	56.6	May 7	36.0	MS	Long
Coker 9704	68.6	58.0	May 5	35.7	MR-MS	None
MD 71-19	68.5	56.4	May 6	34.1	R	None
Agripro Patton	68.4	55.7	May 6	38.6	MR-MS	None
Roane	68.3	57.4	May 8	33.8	R	None
Century II	68.3	57.5	May 6	36.6	MS	None
Jackson	68.2	56.9	May 7	37.6	MS	None
SS FFR-518W	68.2	55.4	May 3	35.6	R-MR	None
Featherstone 520	67.6	57.8	May 6	37.1	MR-MS	Tip
Roberts	67.4	55.9	May 4	36.8	MR	None
MD 36-17	67.3	57.6	May 4	35.4	MR	None
Hyttest HTW275	67.2	56.3	May 6	34.8	MR-MS	None
VA 96-54-326	66.9	57.4	May 5	37.4	R	None
Fleming	66.4	56.4	April 29	34.1	R	Long
MD 39-58	66.4	56.6	May 5	34.9	MR	None
MD 39-20	66.3	56.4	May 5	34.2	MR	None
VA97W-533	66.2	56.0	May 6	34.8	MR	None
MD 4-25	65.3	52.9	May 7	34.4	MR	None
Pocahontas	65.3	56.6	May 5	35.8	MR	None
Freedom	65.2	54.4	May 8	38.0	MR	None
DynaGro 422	65.2	55.4	May 6	37.6	MS	Long
Hyttest HTW295	65.1	54.1	May 6	38.2	MR-MS	None
SS FFR-522W	64.9	57.4	May 5	36.2	MS-S	None
DynaGro 403	64.6	55.6	May 6	36.3	MR-MS	None
GA 90524E35	64.4	53.6	May 4	33.0	MR	Long
MD 24-59	64.3	55.3	May 4	33.6	MR	Long
MD 25-35	64.2	56.6	May 2	34.9	R	Tip
USG 3408	64.0	57.0	May 7	36.3	MR	None
Coker 9663	64.0	53.4	May 6	41.5	MR-MS	None
SS FFR-566W	64.0	56.6	May 9	37.9	MR	None

Entry	Yield (bu/A)	Test Weight (lbs/bu)	Heading Date	Height (in)	Proj. Powdery Mildew Resis. ¹	Beards ²
DynaGro 419	63.5	55.7	May 9	38.1	MR	None
Hoffman 95	63.3	57.1	May 8	37.4	MR-MS	None
Madison	63.2	55.5	May 5	38.2	MR-MS	Tip
Hyttest HTW215	62.9	54.9	May 5	37.1	MR-MS	Long
SS FFR-555W	62.2	55.1	May 8	35.9	MS-S	Tip
Arcia*	61.9	52.3	April 29	45.4	R	Long
DynaGro 426	61.6	56.4	May 7	40.0	MR-MS	None
MD 90113-93	61.4	55.3	May 7	36.1	MR-MS	Long
Agripro Hickory	60.8	57.1	May 5	38.4	MS	Tip
Glory	60.7	55.8	May 8	35.6	MR-MS	None
Agripro Mason	60.4	56.3	May 4	37.5	MR-MS	None
Agripro Foster	59.6	56.4	May 8	36.4	MR-MS	None
MD 4-21	58.5	53.2	May 4	35.1	MR-MS	None
PA 8769-158	55.9	55.9	May 11	39.3	MR	None
KY 86C-61-8	55.7	55.6	May 6	37.4	S-MS	None
FL 304	54.8	56.0	May 7	39.0	S	Long
State-wide Means	65.9	55.9	May 6	36.5	-	-
LSD (.05)	6.3	1.5	1 day	1.2	-	-
CV (%)	13.4	3.8	1.2	4.7	-	-

¹ Projected resistance is the level of resistance that is due to the genetics of the variety alone. Powdery mildew development is also affected by seed treatment. R = Resistant; MR = Moderately Resistant; MS = Moderately Susceptible; S = Susceptible. Disease ratings provided by Dr. Arv Grybauskas, Dept. of Natural Resource Sciences, U of MD.

² Entries with a few awns at the tip of the seed head were labeled as tip-awned. Only entries with awns throughout were labeled as having long awns or bearded.

* This is a wheat/rye cross or triticale, not a wheat variety. Its standard test weight is similar to barley (48 lbs/bu).

Table 4. Relative yield of wheat entries compared to the mean yield of all entries at each location and throughout the state in 2000.

Entry	State	Quantico	Queenstown	Beltsville	Beltsville No-Till	Clarksville	Keedysville
	-----Relative Yield (%)-----						
VA 96W-250	115.4*	118.7*	112.9*	106.2	123.9*	126.4*	111.5*
USG 3209	111.2*	109.2*	110.2*	120.3*	121.8*	105.5*	111.9*
GA 901146E15	111.0*	114.5*	113.4*	106.2	113.0*	100.5*	120.5*
VA 96W-247	109.9*	115.8*	107.4*	107.2*	119.1*	114.3*	105.9*
VA 97W-358	109.1*	106.2	106.9*	108.6*	97.1	122.1*	100.3*
MD 11-52	108.7*	108.4*	99.6	114.1*	110.4*	102.6*	119.0*
Trical 498*	108.1*	119.4*	96.2	99.4	111.9*	111.9*	114.0*
BL 930390	106.7*	110.9*	117.8*	104.1	99.6	101.4*	100.7*
SS FFR-535W	106.7*	106.7	97.1	110.0*	112.3*	106.3*	113.0*
Coker 9803	106.6*	102.9	107.8*	104.7	108.5*	108.8*	107.3*
AGS 2000	106.1*	110.5*	113.6*	111.5*	118.6*	85.9	111.6*
VA 96W-158	105.7	107.5	108.7*	111.3*	102.5	88.2	114.7*
Coker 9835	105.7	101.5	102.0	106.0	98.2	110.8*	106.5*
Pioneer 2643	105.6	100.1	104.6	110.1*	114.3*	106.4*	105.7*
Pioneer 2552	105.2	110.5*	103.1	110.8*	114.3*	106.3*	97.9
Coker 9704	104.1	101.7	100.7	98.0	99.2	108.8*	108.8*
MD 71-19	104.0	114.0*	104.6	105.7	107.1*	83.5	115.4*
Patton	103.8	121.8*	103.1	97.4	100.4	92.0	108.8*
Roane	103.7	103.4	101.8	118.1*	104.1	109.6*	88.3
Century II	103.6	106.2	103.8	105.7	113.7*	98.9	104.8*
Jackson	103.5	94.7	93.3	100.2	96.5	113.3*	111.8*
SS FFR-518W	103.5	97.2	101.4	113.7*	115.0*	112.6*	92.5
Featherstone 520	102.6	103.7	99.5	110.7*	100.5	100.0*	100.6*
Roberts	102.2	107.2	111.9*	84.6	97.7	107.1*	98.8
MD 36-17	102.2	100.6	99.2	98.8	91.9	105.2*	105.6*
Hyttest HTW275	102.0	113.3*	95.1	90.4	106.1*	104.4*	107.2*
VA 96-54-326	101.5	106.0	101.6	120.2*	112.1*	78.4	106.4*
Fleming	100.8	116.5*	101.0	96.7	93.4	86.5	107.2*
MD 39-58	100.8	89.5	96.7	107.4*	109.9*	113.4*	94.6
MD 39-20	100.7	98.7	94.5	113.1*	109.7*	103.2*	95.2
VA97W-533	100.5	91.9	96.5	98.3	82.8	110.7*	101.8*
MD 4-25	99.1	100.6	89.9	95.7	82.6	112.2*	96.1
Pocahontas	99.1	88.5	91.2	114.1*	115.7*	100.2*	100.5*
Freedom	98.9	101.2	106.0*	104.2	99.3	89.5	96.0
DynaGro 422	98.9	97.4	98.4	98.3	100.8	98.6	101.1*
Hyttest HTW295	98.8	98.7	118.7*	99.3	85.8	81.0	91.3
SS FFR-522W	98.4	101.3	106.2*	101.0	108.7*	89.9	95.5
DynaGro 403	98.0	100.6	97.7	88.0	87.4	104.9*	97.4
GA 90524E35	97.7	97.7	105.6*	98.3	100.8	88.2	99.4
MD 24-59	97.6	101.1	103.1	89.8	93.9	106.2*	87.6
MD 25-35	97.4	108.9*	91.9	106.4	93.1	86.3	98.4

Entry	State	Quantico	Queenstown	Beltsville	Beltsville No-Till	Clarksville	Keedysville
	-----Relative Yield (%)-----						
USG 3408	97.2	86.1	99.2	104.8	95.9	97.1	97.1
Coker 9663	97.2	103.5	106.7*	77.4	87.0	113.7*	92.0
SS FFR-566W	97.1	100.2	91.7	99.2	102.7	100.4*	95.0
DynaGro 419	96.4	98.4	101.3	101.3	98.7	86.3	96.6
Hoffman 95	96.1	92.7	90.3	96.4	83.3	99.1	100.2*
Madison	96.0	98.6	97.5	89.4	94.5	99.3	94.4
Hyttest HTW215	95.4	69.4	94.9	99.7	86.6	92.1	113.8*
SS FFR-555W	94.4	86.8	85.3	100.4	103.1	100.4*	97.3
Arcia*	93.9	93.5	91.3	86.4	107.2*	116.2*	80.0
DynaGro 426	93.4	93.1	101.9	89.1	94.1	87.7	94.9
MD 90113-93	93.2	80.8	94.7	96.9	93.7	102.0*	88.7
Hickory	92.3	93.4	89.0	88.8	90.5	107.1*	82.4
Glory	92.1	81.6	85.1	96.2	98.8	103.7*	91.1
Mason	91.7	92.4	94.8	92.8	85.0	94.0	85.0
Foster	90.4	89.3	91.0	80.1	86.6	92.0	97.3
MD 4-21	88.7	76.2	89.8	82.7	81.5	98.2	91.7
PA 8769-158	84.9	83.0	96.6	88.2	95.3	70.1	87.3
KY 86C-61-8	84.6	87.0	89.9	78.8	82.0	78.5	88.5
FL 304	83.1	88.7	97.9	71.7	62.6	79.2	78.5

Relative yields are expressed as a percentage of the mean yield of all entries at each location. *Indicates that the relative yield of an entry is not significantly different (LSD 0.05) from the highest yielding entry at that location.

Table 5. Two-year and three-year averages of grain yield and test weight of wheat entries in Maryland, 1998-2000.

Entry	Two-year average		Three-year average	
	Yield (Bu/A)	Test Weight (Bu/A)	Yield (Bu/A)	Test Weight (Bu/A)
USG 3209	78.3	56.6	78.0	56.2
VA 97W-358	74.6	56.3	-	-
Roberts	74.2	56.0	73.9	55.1
Century II	73.8	57.4	-	-
Pioneer 2643	73.4	56.7	73.8	56.4
Trical 498*	72.6	47.7	76.0	47.8
SS FFR-518W	72.5	55.7	73.4	55.1
Jackson	72.5	57.3	73.5	56.3
Coker 9835	72.1	56.1	72.5	55.6
Pioneer 2552	71.9	57.0	74.1	57.0
VA 96-54-326	71.9	57.7	-	-
Pocahontas	71.9	56.8	74.2	56.0
AGS 2000	71.8	57.2	-	-
Roane	71.8	57.7	72.2	57.9
Coker 9803	71.0	58.1	72.6	57.5
MD 71-19	70.8	56.7	-	-
Fleming	70.7	57.3	70.7	56.6
Featherstone 520	70.4	58.1	71.6	57.1
Coker 9704	70.2	58.5	71.1	57.6
USG 3408	70.1	57.2	70.2	-
Agripro Patton	69.2	55.6	74.1	55.4
Madison	68.7	56.0	70.0	55.6
Hyttest HTW215	68.1	55.4	-	-
DynaGro 422	67.9	55.7	69.7	55.1
SS FFR-522W	67.8	57.8	72.2	57.1
DynaGro 419	67.0	56.2	67.0	-
Hoffman 95	66.7	57.3	68.2	57.2
Coker 9663	66.2	55.2	69.2	55.5
Freedom	66.1	55.0	68.8	54.7
Agripro Hickory	65.7	57.0	-	-
Agripro Mason	65.6	56.3	69.2	56.1
Arcia*	64.9	52.7	-	-
SS FFR-566W	64.6	57.2	-	-
Agripro Foster	64.6	56.7	66.9	56.4
Glory	64.3	56.7	67.6	56.3
KY 86C-61-8	62.2	55.8	-	-
SS FFR-555W	61.9	55.6	65.8	55.0

Table 6. 2000 Maryland State Wheat Variety Performance Trials at the Poplar Hill Facility - **Quantico, MD.**

Entry	Yield (Bu/A)	Test Weight (Lb/Bu)	Heading date	Height (in.)
Agripro Patton	63.5	55.1	April 31	37.3
Trical 498*	62.2	47.1	April 21	44.3
VA 96W-250	61.9	56.0	May 1	32.7
Fleming	60.7	56.7	April 28	33.5
VA 96W-247	60.3	56.2	May 2	32.2
GA 901146E15	59.6	54.3	May 1	32.0
MD 71-19	59.4	55.9	May 4	31.3
Hyttest HTW275	59.0	57.3	May 4	33.3
BL 930390	57.8	55.9	May 7	34.8
Pioneer 2552	57.6	57.3	May 4	34.2
AGS 2000	57.6	57.0	May 3	35.0
USG 3209	56.9	56.0	May 4	32.3
MD 25-35	56.7	56.2	April 30	33.5
MD 11-52	56.5	56.2	May 2	30.7
VA 96W-158	56.0	55.4	May 2	36.2
Roberts	55.8	54.7	May 1	34.2
SS FFR-535W	55.6	57.7	May 4	33.2
VA 97W-358	55.3	56.1	May 1	33.2
Century II	55.3	57.8	May 5	35.8
VA 96-54-326	55.2	58.1	May 2	35.0
Featherstone 520	54.0	57.2	May 4	35.7
Coker 9663	53.9	56.7	May 4	39.3
Roane	53.9	57.8	May 6	32.2
Coker 9803	53.6	58.2	May 2	34.5
Coker 9704	53.0	57.6	May 2	33.8
Coker 9835	52.9	56.3	May 6	31.7
SS FFR-522W	52.8	58.0	May 3	33.5
Freedom	52.7	54.2	May 6	36.0
MD 24-59	52.7	56.3	May 2	32.0
MD 4-25	52.4	53.1	May 4	33.0
MD 36-17	52.4	56.7	May 1	32.5
DynaGro 403	52.4	56.3	May 5	32.8
SS FFR-566W	52.2	57.0	May 8	37.3
Pioneer 2643	52.2	55.8	May 3	30.7
Hyttest HTW295	51.4	54.9	May 5	36.5
MD 39-20	51.4	56.1	May 2	31.2
Madison	51.4	55.4	May 3	36.0
DynaGro 419	51.3	56.7	May 8	36.7
GA 90524E35	50.9	53.2	May 3	31.3
DynaGro 422	50.7	54.7	May 4	35.8
SS FFR-518W	50.6	56.0	May 2	34.0
Jackson	49.3	56.9	May 6	34.3
Arcia*	48.7	51.9	April 23	43.3
Agripro Hickory	48.6	57.3	May 3	36.7

Entry	Yield (Bu/A)	Test Weight (Lb/Bu)	Heading date	Height (in.)
DynaGro 426	48.5	57.7	May 6	37.7
Hoffman 95	48.3	57.4	May 7	34.8
Agripro Mason	48.1	56.0	May 1	36.5
VA97W-533	47.9	56.5	May 4	33.3
MD 39-58	46.6	55.8	May 1	32.2
Agripro Foster	46.5	56.2	May 6	35.5
FL 304	46.2	55.7	May 5	39.5
Pocahontas	46.1	56.5	May 3	33.5
KY 86C-61-8	45.3	56.2	May 3	36.3
SS FFR-555W	45.2	54.8	May 6	33.8
USG 3408	44.9	57.1	May 6	33.0
PA 8769-158	43.2	56.0	May 10	37.2
Glory	42.5	55.4	May 6	33.3
MD 90113-93	42.1	55.1	May 5	33.8
MD 4-21	39.7	52.4	May 1	33.3
Hyttest HTW215	36.2	54.6	May 1	34.3
Location Means	52.1	55.9	May 3	34.6
State-wide Means	65.9	55.9	May 6	36.5
LSD (.05)	7.2	0.8	1 day	1.8
CV (%)	8.5	0.9	0.5	3.1

*Indicates a triticale or wheat/rye cross, not a wheat variety. Its standard test weight is similar to barley (48lb/Bu).

Table 7. 2000 Maryland State Wheat Variety Performance Trials at the Wye Facility - **Queenstown, MD.**

Entry	Yield (Bu/A)	Test Weight (Lb/Bu)	Heading date	Height (in.)
Hytest HTW295	81.7	55.6	May 3	41.3
BL 930390	81.0	57.2	May 6	39.3
AGS 2000	78.2	57.9	April 30	38.7
GA 901146E15	78.0	54.8	April 30	33.3
VA 96W-250	77.6	57.0	April 30	36.3
Roberts	77.0	55.3	April 30	38.0
USG 3209	75.9	57.3	May 1	33.7
VA 96W-158	74.8	53.5	May 1	38.5
Coker 9803	74.2	58.7	May 2	37.7
VA 96W-247	73.9	56.7	May 3	35.5
VA 97W-358	73.6	55.9	May 2	35.8
Coker 9663	73.4	57.4	May 4	39.8
SS FFR-522W	73.1	58.0	May 4	37.0
Freedom	72.9	56.1	May 6	38.3
GA 90524E35	72.7	54.6	April 28	30.8
Pioneer 2643	72.0	57.0	May 2	34.2
MD 71-19	71.9	57.3	May 4	34.5
Century II	71.4	58.0	May 3	35.7
Agripro Patton	70.9	56.9	May 5	38.2
MD 24-59	70.9	55.4	April 27	35.0
Pioneer 2552	70.9	57.7	May 5	37.0
Coker 9835	70.2	56.6	May 4	33.5
DynaGro 426	70.1	58.7	May 5	41.2
Roane	70.0	59.0	May 5	33.8
VA 96-54-326	69.9	58.2	May 2	38.8
SS FFR-518W	69.7	54.0	April 26	34.2
DynaGro 419	69.7	56.4	May 6	39.7
Fleming	69.5	55.8	April 19	32.5
Coker 9704	69.3	59.1	May 2	36.8
MD 11-52	68.5	58.1	May 2	31.8
Featherstone 520	68.5	58.5	May 2	37.2
MD 36-17	68.3	57.9	May 1	36.0
USG 3408	68.2	57.9	May 5	38.7
DynaGro 422	67.7	56.1	May 4	38.8
FL 304	67.4	57.6	May 4	40.7
DynaGro 403	67.3	57.2	May 4	36.3
Madison	67.1	55.7	May 1	39.8
SS FFR-535W	66.8	58.1	May 5	35.5
MD 39-58	66.6	56.9	May 1	36.7
PA 8769-158	66.5	57.7	May 10	40.2
VA97W-533	66.4	56.8	May 4	35.8
Trical 498*	66.2	47.0	April 16	42.0

Entry	Yield (Bu/A)	Test Weight (Lb/Bu)	Heading date	Height (in.)
Hytest HTW275	65.5	58.0	May 4	34.5
Hytest HTW215	65.3	55.5	May 2	38.3
Agripro Mason	65.2	56.7	April 30	38.3
MD 90113-93	65.1	56.6	May 4	35.8
MD 39-20	65.0	57.1	May 3	34.3
Jackson	64.2	57.5	May 5	38.8
MD 25-35	63.2	56.3	April 23	33.3
SS FFR-566W	63.1	57.4	May 6	37.2
Arcia*	62.8	51.9	April 22	44.2
Pocahontas	62.7	57.3	May 2	36.2
Agripro Foster	62.6	57.4	May 6	38.7
Hoffman 95	62.2	58.1	May 6	37.2
MD 4-25	61.8	53.1	May 4	35.2
KY 86C-61-8	61.8	56.4	May 4	39.5
MD 4-21	61.8	53.3	April 28	35.7
Agripro Hickory	61.2	57.2	May 3	38.5
SS FFR-555W	58.7	55.5	May 5	35.5
Glory	58.5	56.6	May 5	35.7
Location Means	68.8	56.6	May 2	36.9
State-wide Means	65.9	55.9	May 6	36.5
LSD (.05)	9.3	1.2	1 day	2.3
CV (%)	8.4	1.3	0.7	3.8

*Indicates a triticale or wheat/rye cross, not a wheat variety. Its standard test weight is similar to barley (48lb/Bu).

Table 8. 2000 Maryland State Wheat Variety Performance Trials at Hayden Farm - **Beltsville, MD.**

Entry	Yield (Bu/A)	Test Weight (Lb/Bu)	Heading date	Height (in.)
USG 3209	71.3	55.9	May 7	33.8
VA 96-54-326	71.3	57.2	May 6	37.8
Roane	70.0	56.8	May 8	34.0
MD 11-52	67.7	56.6	May 6	31.2
Pocahontas	67.7	56.4	May 6	36.8
SS FFR-518W	67.4	55.3	May 6	35.8
MD 39-20	67.1	57.0	May 6	34.3
AGS 2000	66.1	57.3	May 7	38.2
VA 96W-158	66.0	56.2	May 6	37.2
Pioneer 2552	65.7	54.5	May 7	36.0
Featherstone 520	65.6	58.1	May 7	36.7
Pioneer 2643	65.3	56.1	May 6	31.8
SS FFR-535W	65.2	56.9	May 7	34.2
VA 97W-358	64.4	56.8	May 6	33.8
MD 39-58	63.7	56.1	May 6	32.5
VA 96W-247	63.6	56.1	May 7	34.5
MD 25-35	63.1	57.1	May 6	34.8
VA 96W-250	63.0	57.3	May 6	32.8
GA 901146E15	63.0	54.2	May 6	33.8
Coker 9835	62.8	54.5	May 9	33.5
Century II	62.7	56.2	May 7	37.0
MD 71-19	62.7	56.1	May 6	33.2
USG 3408	62.1	55.9	May 7	35.7
Coker 9803	62.1	57.9	May 6	35.7
Freedom	61.8	52.8	May 8	37.3
BL 930390	61.7	54.9	May 8	35.5
DynaGro 419	60.1	55.1	May 9	37.7
SS FFR-522W	59.9	57.0	May 6	36.5
SS FFR-555W	59.5	55.1	May 9	35.8
Jackson	59.4	56.3	May 7	35.8
Hyttest HTW215	59.1	55.1	May 6	35.5
Trical 498*	59.0	46.6	May 5	42.2
Hyttest HTW295	58.9	52.1	May 7	38.8
SS FFR-566W	58.8	55.2	May 9	36.7
MD 36-17	58.6	57.3	May 6	34.2
VA97W-533	58.3	54.9	May 7	33.2
DynaGro 422	58.3	54.2	May 7	36.5
GA 90524E35	58.3	53.9	May 6	32.5
Coker 9704	58.1	58.0	May 6	34.5
Agripro Patton	57.8	55.6	May 6	37.8
MD 90113-93	57.4	53.8	May 8	35.8
Fleming	57.3	57.1	May 4	34.2
Hoffman 95	57.2	56.0	May 8	36.7
Glory	57.0	55.6	May 7	34.8
MD 4-25	56.8	52.4	May 8	34.3

Entry	Yield (Bu/A)	Test Weight (Lb/Bu)	Heading date	Height (in.)
Agripro Mason	55.0	55.2	May 6	37.2
Hyttest HTW275	53.6	55.3	May 7	33.7
MD 24-59	53.3	53.4	May 6	32.3
Madison	53.0	54.9	May 6	38.0
DynaGro 426	52.8	56.1	May 7	39.3
Agripro Hickory	52.6	56.7	May 6	37.5
PA 8769-158	52.3	54.6	May 11	38.8
DynaGro 403	52.2	53.6	May 6	35.7
Arcia*	51.3	51.5	May 5	45.3
Roberts	50.2	56.4	May 6	36.2
MD 4-21	49.0	52.5	May 6	33.5
Agripro Foster	47.5	56.5	May 7	35.0
KY 86C-61-8	46.8	54.3	May 7	36.7
Coker 9663	45.9	56.9	May 7	41.3
FL 304	42.5	54.9	May 7	37.2
Location Means	59.3	55.4	May 7	35.8
State-wide Means	65.9	55.9	May 6	36.5
LSD (.05)	8.0	1.5	1 day	1.7
CV (%)	8.3	1.7	0.4	3.0

*Indicates a triticale or wheat/rye cross, not a wheat variety. Its standard test weight is similar to barley (48lb/Bu).

Table 9. 2000 Maryland State Wheat Variety Performance Trials at the Clarksville Facility - Clarksville, MD.

Entry	Yield (Bu/A)	Test Weight (Lb/Bu)	Heading date	Height (in.)	Lodging (0-10)
VA 96W-250	94.1	58.2	May 7	38.0	1.2
VA 97W-358	90.9	57.4	May 7	37.7	3.3
Arcia*	86.6	53.3	May 3	49.5	0.7
VA 96W-247	85.2	57.5	May 8	38.0	1.8
Coker 9663	84.7	57.4	May 8	46.7	3.7
MD 39-58	84.5	57.8	May 8	38.5	2.7
Jackson	84.4	57.4	May 9	40.7	3.2
SS FFR-518W	83.9	56.5	May 5	38.3	1.2
MD 4-25	83.6	54.7	May 9	36.0	1.5
Trical 498*	83.4	46.8	April 29	42.8	0.7
Coker 9835	82.6	56.6	May 8	35.8	1.5
VA97W-533	82.4	56.7	May 9	37.2	2.3
Roane	81.6	57.7	May 9	38.0	4.5
Coker 9803	81.1	58.5	May 8	39.3	2.8
Coker 9704	81.0	59.0	May 8	37.2	1.7
Roberts	79.8	56.9	May 7	39.7	2.8
Agripro Hickory	79.8	57.8	May 7	41.5	1.0
Pioneer 2643	79.3	56.4	May 7	35.0	0.7
Pioneer 2552	79.2	57.7	May 8	38.5	2.7
SS FFR-535W	79.2	58.7	May 9	36.8	3.3
MD 24-59	79.1	56.7	May 6	34.7	0.3
USG 3209	78.6	57.4	May 7	34.2	2.0
MD 36-17	78.3	59.0	May 7	37.8	0.3
DynaGro 403	78.2	56.1	May 8	39.0	2.5
Hyttest HTW275	77.7	56.0	May 8	36.3	0.0
Glory	77.3	56.3	May 9	38.7	1.0
MD 39-20	76.9	57.5	May 8	35.8	2.3
MD 11-52	76.4	57.8	May 7	34.8	3.0
MD 90113-93	76.0	56.3	May 8	40.0	3.7
BL 930390	75.5	56.4	May 10	36.2	1.8
GA 901146E15	74.8	54.9	May 6	36.2	2.5
SS FFR-555W	74.8	56.1	May 9	38.3	2.3
SS FFR-566W	74.8	57.1	May 9	40.7	0.5
Pocahontas	74.7	57.8	May 7	37.5	3.8
Featherstone 520	74.5	58.1	May 8	39.0	4.0
Madison	74.0	56.5	May 7	40.5	3.7
Hoffman 95	73.9	57.3	May 9	39.7	2.8
Century II	73.7	58.7	May 8	38.8	2.5
DynaGro 422	73.5	56.8	May 8	39.5	2.2
MD 4-21	73.2	54.9	May 7	35.8	2.3
USG 3408	72.3	57.7	May 8	38.7	1.7
Agripro Mason	70.1	57.4	May 7	38.7	0.7
Hyttest HTW215	68.6	55.7	May 8	38.0	2.5
Agripro Foster	68.6	56.8	May 9	37.8	2.5
Agripro Patton	68.5	56.8	May 8	40.7	4.0

Entry	Yield (Bu/A)	Test Weight (Lb/Bu)	Heading date	Height (in.)	Lodging (0-10)
SS FFR-522W	67.0	57.9	May 7	38.8	5.3
Freedom	66.7	54.8	May 9	40.2	3.8
GA 90524E35	65.7	54.0	May 6	35.2	3.3
VA 96W-158	65.7	57.5	May 7	40.2	4.5
DynaGro 426	65.3	58.0	May 8	42.3	2.7
Fleming	64.4	56.1	May 2	34.5	0.8
DynaGro 419	64.3	55.8	May 10	38.5	1.0
MD 25-35	64.3	56.6	May 5	37.0	1.3
AGS 2000	64.0	58.0	May 7	41.0	4.3
MD 71-19	62.2	57.2	May 8	35.7	2.7
Hyttest HTW295	60.4	56.3	May 8	39.7	4.0
FL 304	59.0	56.0	May 9	40.0	1.0
KY 86C-61-8	58.5	57.1	May 9	38.8	2.3
VA 96-54-326	58.4	57.5	May 7	37.8	4.0
PA 8769-158	52.2	56.0	May 12	40.2	4.2
Location Means	74.5	56.7	May 8	38.5	2.4
State-wide Means	65.9	55.9	May 6	36.5	-
LSD (.05)	20.1	1.2	1 day	2.1	2.9
CV (%)	16.6	1.3	0.4	3.5	76.0

*Indicates a triticale or wheat/rye cross, not a wheat variety. Its standard test weight is similar to barley (48lb/Bu).

Table 10. 2000 Maryland State Wheat Variety Performance Trials at the Keedysville Facility-Keedysville, MD.

Entry	Yield (Bu/A)	Test Weight (Lb/Bu)	Heading date	Height (in.)
GA 901146E15	90.3	54.4	May 5	35.5
MD 11-52	89.1	56.0	May 8	33.7
MD 71-19	86.4	55.5	May 9	35.8
VA 96W-158	85.9	56.1	May 6	38.8
Trical 498*	85.4	45.7	May 3	45.8
Hyttest HTW215	85.3	53.9	May 7	39.2
SS FFR-535W	84.7	57.3	May 10	34
USG 3209	83.8	55.9	May 8	32.8
Jackson	83.8	56.5	May 9	38.3
AGS 2000	83.6	57.1	May 7	38.3
VA 96W-250	83.5	55.9	May 7	34.2
Coker 9704	81.5	56.5	May 8	36.2
Agripro Patton	81.5	54.1	May 8	38.8
Coker 9803	80.4	56.4	May 7	37.5
Fleming	80.3	56.4	May 3	35.8
Hyttest HTW275	80.3	55.0	May 8	36
Coker 9835	79.7	54.7	May 11	36
VA 96-54-326	79.7	56.2	May 7	37.5
VA 96W-247	79.3	56.2	May 8	35.3
Pioneer 2643	79.2	55.2	May 7	32.2
MD 36-17	79.1	56.9	May 6	36.3
Century II	78.5	56.6	May 10	35.8
VA97W-533	76.2	54.8	May 8	34.7
DynaGro 422	75.8	55.1	May 7	37.2
BL 930390	75.4	55.4	May 11	33.5
Featherstone 520	75.4	56.9	May 8	37.2
Pocahontas	75.3	55.0	May 6	35
VA 97W-358	75.1	56.1	May 6	34.3
Hoffman 95	75.1	56.8	May 11	38.8
GA 90524E35	74.4	52.4	May 7	35
Roberts	74	56.1	May 5	36.2
MD 25-35	73.7	56.9	May 6	35.7
Pioneer 2552	73.3	55.5	May 9	34.3
DynaGro 403	73	54.7	May 8	37.5
Agripro Foster	72.9	55.2	May 11	34.8
SS FFR-555W	72.8	54.1	May 11	35.8
USG 3408	72.7	56.1	May 8	35.5
DynaGro 419	72.4	54.7	May 11	38.2
MD 4-25	72	51.1	May 9	33.7
Freedom	71.9	54.1	May 12	38
SS FFR-522W	71.5	56.4	May 7	35
MD 39-20	71.3	54.6	May 7	35.2
SS FFR-566W	71.2	56.2	May 11	37.8
DynaGro 426	71.1	56.5	May 9	39.5
MD 39-58	70.8	56.3	May 7	34.8

Entry	Yield (Bu/A)	Test Weight (Lb/Bu)	Heading date	Height (in.)
Madison	70.7	54.8	May 7	36.8
SS FFR-518W	69.3	55.1	May 6	35.5
Coker 9663	68.9	56.9	May 9	40.5
MD 4-21	68.7	53.0	May 6	37.2
Hyttest HTW295	68.4	53.8	May 10	36.3
Glory	68.2	55.2	May 10	35.3
MD 90113-93	66.5	54.8	May 8	35.2
KY 86C-61-8	66.3	54.0	May 8	35.8
Roane	66.1	55.5	May 11	31
MD 24-59	65.6	54.7	May 7	34
PA 8769-158	65.4	55.4	May 12	40
Agripro Mason	63.7	56.0	May 6	36.8
Agripro Hickory	61.8	56.4	May 8	37.8
Arcia*	59.9	52.9	May 5	44.8
FL 304	58.8	55.9	May 9	37.5
Location Means	74.9	55.2	May 8	36.4
State-wide Means	65.9	55.9	May 6	36.5
LSD (.05)	15.5	1.3	2 days	3.2
CV (%)	12.8	1.5	0.8	5.4

*Indicates a triticale or wheat/rye cross, not a wheat variety. Its standard test weight is similar to barley (48lb/Bu).

Table 11. 2000 Maryland State Wheat Variety Performance Trials Planted No-till at Hayden Farm-Beltsville, MD.

Entry	Yield (Bu/A)	Test weight	Heading date	Height
VA 96W-250	63.1	57.7	May 6	33.2
USG 3209	62.0	58.0	May 7	32.0
VA 96W-247	60.6	57.2	May 7	32.2
AGS 2000	60.4	58.5	May 7	37.5
Pocahontas	58.9	57.5	May 6	33.8
SS FFR-518W	58.5	57.6	May 6	33.3
Pioneer 2552	58.2	57.7	May 8	34.2
Pioneer 2643	58.2	56.4	May 6	30.8
Century II	57.9	57.8	May 6	35.3
GA 901146E15	57.5	54.9	May 5	33.8
SS FFR-535W	57.2	57.5	May 9	33.0
VA 96-54-326	57.0	57.8	May 6	34.8
Trical 498*	57.0	46.9	May 2	42.2
MD 11-52	56.2	57.4	May 6	28.7
MD 39-58	55.9	57.9	May 6	32.7
MD 39-20	55.9	57.8	May 6	31.8
SS FFR-522W	55.3	59.1	May 7	34.7
Coker 9803	55.1	58.3	May 6	34.0
Arcia*	54.6	52.2	May 3	43.3
MD 71-19	54.5	57.3	May 7	30.7
Hyttest HTW275	54.0	57.0	May 7	32.7
Roane	53.0	57.8	May 8	30.0
SS FFR-555W	52.5	56.0	May 9	33.3
SS FFR-566W	52.3	56.0	May 10	36.7
VA 96W-158	52.2	57.0	May 6	34.5
GA 90524E35	51.3	53.7	May 7	30.7
DynaGro 422	51.3	54.9	May 7	34.3
Featherstone 520	51.2	59.0	May 8	33.5
Patton	51.1	57.2	May 7	36.2
BL 930390	50.7	55.3	May 9	32.3
Freedom	50.5	53.7	May 9	35.0
Coker 9704	50.5	59.0	May 7	32.5
Glory	50.3	56.9	May 8	33.2
DynaGro 419	50.2	55.8	May 9	35.8
Coker 9835	50.0	55.4	May 8	31.0
Roberts	49.7	56.4	May 6	34.5
VA 97W-358	49.4	58.1	May 6	32.0
Jackson	49.1	56.8	May 8	35.5
USG 3408	48.8	56.6	May 7	33.2
PA 8769-158	48.5	56.6	May 12	38.5
Madison	48.1	55.7	May 7	36.0
DynaGro 426	47.9	57.1	May 7	37.8
MD 24-59	47.8	56.6	May 8	31.3
MD 90113-93	47.7	54.9	May 9	32.7
Fleming	47.5	59.3	May 4	32.7

Entry	Yield (Bu/A)	Test weight	Heading date	Height
MD 25-35	47.4	58.2	May 6	32.2
MD 36-17	46.8	58.4	May 5	33.0
Hickory	46.1	58.6	May 7	37.2
DynaGro 403	44.5	55.9	May 7	32.5
Coker 9663	44.3	56.2	May 8	38.0
Hyttest HTW215	44.1	57.0	May 5	32.0
Foster	44.1	56.7	May 8	32.2
Hyttest HTW295	43.7	53.2	May 9	34.8
Mason	43.3	57.3	May 7	33.0
Hoffman 95	42.4	57.4	May 9	33.5
VA97W-533	42.2	57.2	May 6	30.5
MD 4-25	42.1	53.2	May 8	30.0
KY 86C-61-8	41.8	57.2	May 7	35.8
MD 4-21	41.5	54.2	May 7	32.8
FL 304	31.9	56.4	May 7	33.7
Location Mean	50.9	56.6	May 7	33.8
LSD (0.05)	9.3	0.9	1 day	2.4
CV (%)	11.3	1.0	0.4	0.7

*Indicates a triticale or wheat/rye cross, not a wheat variety. Its standard test weight is similar to barley (48lb/Bu).

Table 12. 2000 Maryland State Barley Variety Performance Trials averaged over 4 locations in Maryland -**Quantico, Queenstown, Beltsville, and Clarksville.**

Entry	Yield (Bu/A)	Test Weight (Lbs/Bu)	Heading Date	Height (in)	Lodging (0-10)	Beards
GA-Luttrell	90.7	35.6	April 24	38.0	1.0	Long
VA 96-44-307	87.6	42.2	April 22	34.8	0.8	Short
PA 8649-95	86.2	43.1	May 1	40.0	0.3	Long
VA 97B-176	85.7	44.1	April 24	36.5	1.5	Short
GA-Acton	85.5	37.1	April 28	41.9	0.8	Medium
VA 96B-301	83.6	42.7	April 20	35.6	1.4	Medium
MD 811183-28	83.5	40.1	April 30	39.0	1.4	Long
MD 911222-61	82.8	41.4	April 24	35.6	1.0	Short
VA 96-44-321	82.6	42.8	April 25	36.7	1.0	Short
Pennbar 66	81.3	43.6	May 2	39.7	0.4	Long
VA 97B-389	81.1	45.0	April 27	37.8	0.9	Long
Starling	81.0	41.5	April 27	41.3	2.2	None
VA 97B-398	81.0	43.3	April 23	35.3	1.5	Short
MD 881007-6	80.8	41.2	April 22	38.6	1.2	None
VA 97B-284	80.3	46.4	April 24	38.1	1.3	Short
VA 95-42-33	80.1	41.6	April 24	38.6	2.0	None
Nomini	79.1	41.5	April 23	43.2	2.5	None
MD 841006-55	78.8	41.4	April 24	41.1	1.6	None
MD 911077-17	78.7	39.7	April 24	40.1	1.0	None
VA 96B-248	77.9	42.9	April 25	36.4	1.6	Short
Pamunkey	77.4	41.2	April 22	39.2	3.1	Long
VA 97B-33	77.1	43.6	April 23	35.0	2.3	Short
VA 96B-70	76.2	43.3	April 20	34.8	2.3	Short
92AB1347 (malt)	75.6	40.2	April 29	33.2	0.8	Long (2 row)
Wysor	74.4	41.3	April 26	41.4	2.5	None
MD 911047-73	73.7	42.6	April 25	39.0	1.2	Long
Pennco	73.1	41.8	April 30	41.2	1.3	None
Callao	71.7	44.3	April 23	35.4	3.5	Long
Clemson 100	70.8	42.8	April 25	42.6	0.0	Short
MD 911235-30	70.7	38.9	April 24	40.8	2.5	Short
MD 911222-75	69.2	40.0	April 24	39.6	0.4	Short
MD 911047-84	68.5	38.5	April 19	37.0	2.7	Long
MD 911132-82	67.8	40.9	April 24	39.2	1.8	None
MD 911047-27	64.3	41.5	April 24	39.0	2.2	None
MD 911132-23	63.0	42.6	April 23	40.0	2.3	None
Barsoy	62.0	40.8	April 20	38.2	2.3	Long
MD 911222-74	58.6	41.8	May 1	40.1	1.4	Long
92Ab2262 (malt)	57.1	39.9	April 30	33.3	1.7	Long (2 row)
92Ab2260 (malt)	49.7	36.7	April 27	31.4	3.6	Long (2 row)
92Ab1340 (malt)	40.0	35.5	May 1	33.2	5.8	Long
Means	74.7	41.4	April 25	38.0	1.7	
LSD (.05)	9.4	1.7	2 days	1.2	1.0	-
CV (%)	15.6	5	1.8	3.8	75	

Table 13. Relative yield of barley entries compared to the mean yield of all entries at each location and throughout the state in 2000.

Entry	State	Quantico	Queenstown	Beltsville	Clarksville
	-----Relative Yield (%)-----				
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GA-Luttrell	121.4*	129.6*	103.6*	141.4*	117.0*
VA 96-44-307	117.3*	113.0*	112.5*	121.4*	124.7*
PA 8649-95	115.4*	104.4	114.9*	110.9	131.7*
VA 97B-176	114.7*	110.9*	105.4*	114.1	128.7*
GA-Acton	114.4*	129.6*	96.8	116.7*	115.2*
VA 96B-301	112.0*	108.3	115.2*	100.0	121.1*
MD 811183-28	111.8*	124.0*	99.5	112.7	110.7*
MD 911222-61	110.8*	111.1*	122.4*	97.5	109.0*
VA 96-44-321	110.6*	116.4*	112.8*	113.8	100.7
Pennbar 66	108.8*	98.6	116.0*	111.0	111.8*
VA 97B-389	108.5	104.4	106.7*	115.2*	111.1*
Starling	108.5	106.4	119.4*	96.6	108.1*
VA 97B-398	108.4	104.9	105.3*	108.8	115.3*
MD 881007-6	108.2	105.4	118.3*	119.4*	93.6
VA 97B-284	107.5	112.0*	111.3*	80.2	117.6*
VA 95-42-33	107.3	115.5*	115.4*	102.2	94.0
Nomini	105.9	106.9	112.1*	113.5	93.7
MD 841006-55	105.5	109.1	119.3*	125.5*	74.3
MD 911077-17	105.4	94.8	102.0*	104.1	121.9*
VA 96B-248	104.2	106.1	104.9*	107.8	99.3
Pamunkey	103.7	102.1	112.2*	94.2	103.4
VA 97B-33	103.2	89.9	105.8*	113.7	108.5*
VA 96B-70	102.0	105.2	103.3*	103.2	96.8
92AB1347 (malt)	101.2	102.7	98.2	107.5	98.3
Wysor	99.7	91.7	101.1*	105.7	103.5
MD 911047-73	98.7	100.5	95.1	108.8	93.6
Pennco	97.9	98.4	97.9	99.7	96.1
Callao	95.9	92.6	109.8*	103.9	81.2
Clemson 100	94.8	100.6	86.9	110.3	85.9
MD 911235-30	94.7	103.7	97.5	67.0	101.3
MD 911222-75	92.7	93.3	78.2	107.2	97.3
MD 911047-84	91.6	94.4	75.8	92.6	104.7
MD 911132-82	90.8	91.1	105.7*	96.2	72.9
MD 911047-27	86.0	76.4	95.3	85.7	88.0
MD 911132-23	84.3	89.8	96.8	74.4	73.6
Barsoy	82.9	75.0	75.0	80.7	101.7
MD 911222-74	78.5	84.1	77.0	70.6	80.0
92Ab2262 (malt)	76.4	77.7	77.9	59.4	85.2
92Ab2260 (malt)	66.6	69.3	64.0	58.2	72.0
92Ab1340 (malt)	53.6	52.0	52.3	50.8	59.2

Table 14. Two-year and three-year averages of grain yield and test weight of barley entries in Maryland, 1998-2000.

Entry	Yield (Bu/A)	Test Weight (Lbs/Bu)	Yield (Bu/A)	Test Weight (Lbs/Bu)
GA-Luttrell	96.5	40.7	90.9	42.1
GA-Acton	94.9	41.4	90.4	42.4
VA 96B-301	93.0	45.5	89.6	45.8
VA 95-42-33	92.0	44.7	89.5	45.2
MD 811183-28	91.3	43.8	89.2	44.5
VA 96-44-321	90.7	46.1	-	-
VA 97B-389	90.6	47.5	-	-
VA 96-44-307	90.3	45.6	-	-
MD 881007-6	89.4	44.6	86.9	44.7
VA 96B-248	88.5	45.8	-	-
VA97B-284	88.4	48.9	-	-
Pennbar 66	87.7	45.8	85.0	46.2
Callao	86.2	47.0	84.7	47.4
MD 841006-55	86.1	44.1	84.6	44.8
VA 97B-33	86.0	46.8		
Pamunkey	86.0	45.2	81.3	46.5
Starling	85.7	44.4	86.1	44.4
Pennco	85.4	44.0	85.4	44.6
Nomini	84.9	44.3	85.1	44.5
Wysor	83.1	44.6	83.7	44.9
Clemson 100	76.5	46.1	79.7	46.5
Barsoy	71.0	45.0	67.3	45.7

Table 15. 2000 Maryland State Barley Variety Performance Trials at the Poplar Hill Facility - **Quantico, MD.**

Entry	Yield (Bu/A)	Test weight (Lbs/Bu)	Heading date	Height (in)	Lodging (0-10)
GA-Luttrell	110.0	36.7	April 21	36.3	0.0
GA-Acton	110.0	37.0	April 27	40.0	0.3
MD 811183-28	105.0	42.3	April 30	38.3	0.0
VA 96-44-321	98.9	46.4	April 22	35.7	0.0
VA 95-42-33	98.1	44.8	April 21	37.3	0.7
VA 96-44-307	96.0	46.7	April 18	32.8	0.0
VA 97B-284	95.1	50.8	April 22	36.2	0.0
MD 911222-61	94.3	42.2	April 24	34.0	1.0
VA 97B-176	94.1	48.7	April 21	34.8	1.7
MD 841006-55	92.6	44.7	April 21	39.2	0.0
VA 96B-301	91.9	46.9	April 17	33.3	0.3
Nomini	90.8	44.3	April 21	41.2	1.7
Starling	90.3	44.7	April 22	40.2	0.0
VA 96B-248	90.1	47.3	April 23	34.7	0.7
MD 881007-6	89.5	45.2	April 17	36.8	0.7
VA 96B-70	89.3	46.1	April 17	32.8	2.0
VA 97B-398	89.1	47.7	April 21	32.8	0.7
VA 97B-389	88.6	49.8	April 23	36.3	0.0
PA 8649-95	88.6	46.3	May 1	39.8	0.0
MD 911235-30	88.1	42.2	April 21	38.7	0.3
92AB1347 (malt)	87.2	43.8	April 26	30.7	0.3
Pamunkey	86.7	39.7	April 18	37.5	3.7
Clemson 100	85.4	44.9	April 21	40.8	0.0
MD 911047-73	85.3	44.8	April 21	37.7	1.0
Pennbar 66	83.7	46.7	May 2	39.3	0.0
Pennco	83.6	44.1	April 27	41.5	0.3
MD 911077-17	80.5	43.4	April 21	38.5	0.7
MD 911047-84	80.1	39.5	April 16	34.7	1.0
MD 911222-75	79.2	39.7	April 22	38.5	0.0
Callao	78.6	47.6	April 19	33.2	4.3
Wysor	77.8	45.4	April 24	39.7	2.7
MD 911132-82	77.4	45.3	April 21	37.2	1.0
VA 97B-33	76.3	47.8	April 20	32.7	3.7
MD 911132-23	76.3	47.0	April 20	38.3	1.3
MD 911222-74	71.4	42.8	May 1	39.5	1.0
92Ab2262 (malt)	66.0	43.0	April 28	31.5	1.0
MD 911047-27	64.9	43.8	April 22	37.3	1.3
Barsoy	63.7	40.9	April 16	34.0	1.0
92Ab2260 (malt)	58.8	42.9	April 25	30.3	3.7
92Ab1340 (malt)	44.2	37.1	May 2	33.0	6.0
Location Means	84.9	44.3	April 22	36.4	1.1
State-wide Means	74.7	41.4	April 25	38.0	1.7
LSD (.05)	16.3	2.4	2 days	1.6	1.2
CV (%)	11.8	3.4	1	2.8	66

Table 16. 2000 Maryland State Barley Variety Performance Trials at the Wye - **Queenstown, MD.**

Entry	Yield (Bu/A)	Test weight (Lbs/Bu)	Heading date	Height (in)	Lodging (0-10)
MD 911222-61	97.3	43.8	April 22	36.1	0.0
Starling	94.9	42.9	April 22	40.5	0.0
MD 841006-55	94.9	42.9	April 19	40.0	0.0
MD 881007-6	94.1	43.4	April 16	38.5	0.0
Pennbar 66	92.2	44.9	April 28	40.1	0.0
VA 95-42-33	91.8	42.8	April 17	38.2	0.0
VA 96B-301	91.6	44.1	April 15	35.2	0.2
PA 8649-95	91.4	44.6	April 24	39.9	0.2
VA 96-44-321	89.7	44.4	April 20	35.6	0.0
VA 96-44-307	89.4	44.6	April 16	34.8	0.0
Pamunkey	89.2	43.1	April 16	40.2	0.8
Nomini	89.2	41.7	April 17	43.2	0.7
VA 97B-284	88.5	47.0	April 16	37.5	0.5
Callao	87.3	46.3	April 17	35.6	0.7
VA 97B-389	84.8	47.3	April 22	39.3	0.0
VA 97B-33	84.1	43.6	April 17	34.8	0.4
MD 911132-82	84.0	41.4	April 18	39.1	0.0
VA 97B-176	83.8	44.8	April 17	36.3	0.3
VA 97B-398	83.7	45.7	April 17	34.7	0.3
VA 96B-248	83.4	44.0	April 19	35.8	0.0
GA-Luttrell	82.3	40.0	April 18	38.7	0.0
VA 96B-70	82.1	44.1	April 15	35.5	0.7
MD 911077-17	81.1	41.6	April 18	39.8	0.0
Wysor	80.4	43.3	April 22	40.6	0.2
MD 811183-28	79.1	43.3	April 23	39.2	0.0
92AB1347 (malt)	78.0	42.4	April 23	30.7	0.0
Pennco	77.8	41.9	April 26	41.0	0.0
MD 911235-30	77.5	40.9	April 17	41.5	0.0
GA-Acton	76.9	37.8	April 22	40.3	0.2
MD 911132-23	76.9	44.7	April 18	39.3	0.4
MD 911047-27	75.8	41.3	April 20	39.1	0.4
MD 911047-73	75.6	44.1	April 18	39.3	0.0
Clemson 100	69.1	43.9	April 20	41.0	0.0
MD 911222-75	62.2	42.4	April 19	38.4	0.0
92Ab2262 (malt)	61.9	40.9	April 23	31.2	0.0
MD 911222-74	61.2	41.1	April 27	39.3	0.0
MD 911047-84	60.3	40.7	April 15	36.1	1.4
Barsoy	59.7	42.7	April 16	39.4	1.0
92Ab2260 (malt)	50.9	37.1	April 21	30.5	0.3
92Ab1340 (malt)	41.6	35.2	April 24	33.1	1.4
Location Mean	79.5	42.7	April 19	37.7	0.2
State-wide Means	74.7	41.4	April 25	38.0	1.7
LSD (.05)	17.3	3.2	2 days	2.1	0.7
CV (%)	13.4	4.6	1.3	3.5	

Table 17. 2000 Maryland State Barley Variety Performance Trials at Hayden Farm - **Beltsville, MD.**

Entry	Yield (Bu/A)	Test weight (Lbs/Bu)	Heading date	Height (in)	Lodging (0-10)
GA-Luttrell	77.1	30.4	April 26	40.3	0.0
MD 841006-55	68.4	39.2	April 28	44.5	1.0
VA 96-44-307	66.2	37.1	April 28	37.3	0.3
MD 881007-6	65.1	37.6	April 25	40.2	0.0
GA-Acton	63.6	35.1	April 30	45.2	0.3
VA 97B-389	62.8	41.8	April 29	39.0	0.3
VA 97B-176	62.2	40.8	April 29	38.2	0.3
VA 96-44-321	62.0	38.8	May 1	39.5	0.0
VA 97B-33	61.9	41.2	April 28	37.2	0.3
Nomini	61.9	39.6	April 25	44.3	2.7
MD 811183-28	61.4	35.9	May 3	40.8	0.7
Pennbar 66	60.5	40.5	May 4	42.5	0.0
PA 8649-95	60.5	39.6	May 4	43.3	0.0
Clemson 100	60.1	39.5	April 29	45.0	0.0
VA 97B-398	59.3	38.1	April 26	37.2	0.0
MD 911047-73	59.3	38.9	April 28	40.8	0.3
VA 96B-248	58.7	38.7	April 28	38.5	0.0
92AB1347 (malt)	58.6	41.2	May 3	39.5	0.0
MD 911222-75	58.4	37.1	April 28	40.8	0.0
Wysor	57.6	38.5	May 1	44.0	2.0
MD 911077-17	56.7	37.9	April 28	42.0	0.3
Callao	56.6	41.3	April 27	36.5	1.0
VA 96B-70	56.2	39.7	April 24	36.5	0.0
VA 95-42-33	55.7	38.9	April 28	40.3	2.0
VA 96B-301	54.5	38.8	April 23	38.0	1.0
Pennco	54.4	40.9	May 2	41.3	1.0
MD 911222-61	53.2	38.5	May 1	37.0	0.0
Starling	52.7	38.6	April 30	43.0	1.3
MD 911132-82	52.4	39.9	April 29	41.8	2.7
Pamunkey	51.3	39.6	April 26	42.0	2.0
MD 911047-84	50.5	34.0	April 22	39.8	3.0
MD 911047-27	46.7	39.7	April 26	39.3	2.3
Barsoy	44.0	37.4	April 21	40.2	2.3
VA 97B-284	43.7	43.1	April 30	41.0	2.0
MD 911132-23	40.5	38.4	April 27	42.5	3.7
MD 911222-74	38.5	43.2	May 3	41.8	0.7
MD 911235-30	36.5	37.2	April 28	42.7	1.7
92Ab2262 (malt)	32.4	39.7	May 4	37.2	1.0
92Ab2260 (malt)	31.7	36.8	May 2	33.7	4.0
92Ab1340 (malt)	27.7	34.4	May 3	35.8	7.3
Location Means	54.5	38.7	April 29	40.3	1.2
State-wide Means	74.7	41.4	April 25	38.0	1.7
LSD (.05)	14.8	2.0	2 days	2.6	1.4
CV (%)	16.6	3.2	1.0	4.0	72.2

Table 18. 2000 Maryland State Barley Variety Performance Trials at Clarksville - **Clarksville, MD.**

Entry	Yield (Bu/A)	Test Weight (Lbs/bu)	Heading Date	Height (in)	Lodging (0-10)
PA 8649-95	105.0	45.9	May 6	36.8	0.8
VA 97B-176	103.0	46.3	April 28	36.7	3.8
VA 96-44-307	99.5	44.6	April 25	34.3	3.0
MD 911077-17	97.2	39.9	April 29	40.0	3.0
VA 96B-301	96.6	45.1	April 25	35.8	4.0
VA 97B-284	93.9	48.9	April 29	37.7	2.5
GA-Luttrell	93.4	39.1	April 30	36.7	4.0
GA-Acton	92.0	42.7	May 4	42.0	2.5
VA 97B-398	92.0	45.8	April 27	36.5	5.2
Pennbar 66	89.2	46.6	May 5	36.7	1.7
VA 97B-389	88.6	45.2	May 4	36.5	3.3
MD 811183-28	88.4	42.8	May 3	37.5	4.8
MD 911222-61	87.0	45.3	May 1	35.3	3.2
VA 97B-33	86.6	46.0	April 27	35.3	5.0
Starling	86.3	43.9	May 3	41.5	7.3
MD 911047-84	83.6	44.1	April 26	37.3	5.3
Wysor	82.6	42.2	May 1	41.2	5.2
Pamunkey	82.5	46.3	April 29	37.0	5.8
Barsoy	81.1	46.2	April 27	39.3	5.0
MD 911235-30	80.8	39.6	April 29	40.5	7.8
VA 96-44-321	80.4	46.0	May 1	36.0	4.2
VA 96B-248	79.2	45.5	April 29	36.5	5.7
92AB1347 (malt)	78.5	37.2	May 5	31.8	2.7
MD 911222-75	77.7	45.1	April 30	40.7	1.7
VA 96B-70	77.2	47.2	April 25	34.2	6.3
Pennco	76.7	44.4	May 4	40.8	3.8
VA 95-42-33	75.0	43.8	April 28	38.7	5.3
Nomini	74.8	44.5	April 29	44.0	4.8
MD 881007-6	74.7	42.5	April 28	38.8	4.2
MD 911047-73	74.7	46.6	May 1	38.3	3.5
MD 911047-27	70.2	45.3	April 30	40.2	4.8
Clemson 100	68.6	46.9	April 29	43.7	0.0
92Ab2262 (malt)	68.0	40.2	May 3	33.3	4.7
Callao	64.8	46.2	April 28	36.2	8.0
MD 911222-74	63.9	44.4	May 5	39.7	4.0
MD 841006-55	59.3	42.9	April 30	40.8	5.3
MD 911132-23	58.7	44.4	April 29	40.0	4.0
MD 911132-82	58.1	41.1	April 30	38.5	3.7
92Ab2260 (malt)	57.5	34.0	May 1	31.0	6.5
92Ab1340 (malt)	47.2	39.3	May 6	31.0	8.5
Location Means	79.8	43.8	April 30	37.7	4.4
State-wide Means	74.7	41.4	April 25	38.0	1.7
LSD (.05)	20.8	2.1	1 day	1.7	2.8
CV (%)	16.0	2.9	0.8	2.7	38.