Table 1. Mean grain yield, percent protein, test weight, plant height, and percent lodging of irrigated soft white winter wheat. Parma, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Goetze	170	11.7	59.0	37	0
ID-D-05	177	12.0	61.7	39	17
ID02-859	160	12.2	58.4	39	26
ID629	145	11.4	61.2	40	34
ID630	152	11.8	61.3	38	20
ID93-64901A	166	11.2	59.7	42	51
ID99-419	151	11.2	58.7	40	52
ID99-435	155	11.9	58.6	44	26
ID99-22407A	162	11.6	59.7	43	50
KWH4010	178	12.3	62.2	40	5
KW3072	126	12.2	61.0	40	90
KWSW023	163	10.8	57.8	44	22
Malcolm	169	11.1	59.4	41	31
ORCF102	162	12.1	60.1	41	20
Stephens	157	11.9	58.3	39	50
Tubbs	171	11.3	59.6	41	10
Tubbs06	161	11.9	58.7	44	46
WB 528	166	11.8	61.1	39	17
Average	161	11.7	59.8	40	32
$LSD_{.10}$[2]	11	0.6	0.9	2	18

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 2. Mean grain yield, percent protein, test weight, plant height, percent lodging and Julian heading date of irrigated hard winter wheat. Parma, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Winter hard reds					
Hoff	143	12.9	61.1	40	29
ID 621	146	13.4	61.2	40	51
ID 653	112	14.2	62.1	49	56
Moreland	138	12.9	60.7	39	41
Winter hard whites					
Darwin	120	14.1	61.3	43	87
Gary	134	13.1	59.7	44	91
Ivory	155	12.7	59.9	41	52
NuHorizon	148	12.2	63.2	42	24
Average	137	13.1	61.2	42	54
$LSD_{.10}$[2]	12	0.9	1.6	5	30

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 3. Mean grain yield, test weight, plant height, percent lodging and Julian heading date of irrigated fall planted winter and spring barley genotypes. Parma, 2007

	Grain Yd[1]	Test Wt.	Plant Ht.	Lodging	Thins
Entry	bu/A	lb/bu	in	%	%
Winter					
Charles	168	46.7	37	62	.8
Maja	205	48.9	43	34	3
Strider	155	45.2	43	55	7
Sunstar Pride	209	48.6	39	55	6
Spring					
Herald	138	49.3	48	2	.8
Idagold	194	51.6	35	32	1
Merlin (hl)	162	61.1	37	8	1
WB Salute	102	51.0	45	17	1
YU599-006	154	50.3	41	0	.2
02AH684 (hl)	117	58.6	46	2	1
Average	160	51.1	41	27	2
$LSD_{.10}$[2]	28	1.3	3	20	1

[1]Grain yield is based on a test weight of 60 lb/bu for barley, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 4. Mean grain yield, percent protein, test weight, plant height, percent and lodging of irrigated soft white winter wheat. Weiser, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Goetze	163	11.7	59.8	32	0
ID629	151	12.4	62.7	36	0
ID630	126	13.1	63.0	32	0
ID99-419	160	11.8	59.9	36	0
ID99-435	145	12.9	59.1	40	0
ID9922407A	157	11.3	61.0	39	0
Malcolm	169	11.6	61.3	36	0
ORCF102	156	12.4	60.9	38	0
Stephens	164	11.8	60.3	35	0
Tubbs	175	11.4	60.0	39	0
Tubbs06	161	12.6	59.3	38	0
WB 528	166	11.6	62.2	37	0
Average	158	12.0	60.8	37	0
$LSD_{.10}$[2]	16	1.0	0.7	2	0

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 5. Mean grain yield, percent protein, test weight, plant height, percent lodging and Julian heading date of irrigated hard winter wheat. Weiser, 2007

Entry	Grain Yd[1] bu/A	Protein %	Test Wt. lb/bu	Plant Ht. in	Lodging %
Winter hard reds					
Hoff	146	12.9	62.6	38	17
ID621	156	12.7	62.8	36	2
ID653	119	14.1	62.5	43	55
Moreland	147	13.9	61.5	33	0
Winter hard whites					
Darwin	127	13.8	63.2	41	25
Gary	119	14.0	60.1	38	67
Ivory	150	12.8	62.6	37	0
NuHorizon	162	13.4	64.8	33	0
Average	141	13.5	62.5	38	21
$LSD_{.10}$[2]	14	1.3	0.8	3	33

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 6. Mean grain yield, test weight, plant height, percent lodging and Julian heading date of irrigated fall planted winter and spring barley genotypes. Weiser, 2007

	Grain Yd[1]	Test Wt.	Plant Ht.	Lodging	Thins
Entry	bu/A	lb/bu	in	%	%
Winter					
Charles	163	50.5	29	0	.6
Maja	196	53.6	29	0	.6
Strider	202	51.1	29	15	.7
Sunstar Pride	218	50.9	26	0	2.7
Spring					
Herald	121	50.0	31	0	.8
Idagold	178	54.2	24	0	.8
Merlin (hl)	139	61.9	27	0	3
WB Salute	149	53.7	29	0	1
YU599-006	139	50.9	24	0	.3
02AH684 (hl)	129	60.3	31	0	2
Average	163	53.7	28	2	1
$LSD_{.10}$[2]	26	0.7	3	6	.4

[1]Grain yield is based on a test weight of 48 lb/bu for barley, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 7. Mean grain yield, percent protein, test weight, plant height, percent lodging and Julian heading date of late planted irrigated soft white winter wheat. Parma, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Goetze	144	10.8	58.8	35	0
ID629 (waxy)	147	11.6	62.1	41	5
ID630 (waxy)	143	12.2	62.3	37	0
ID99-419	153	10.2	60.0	39	0
ID99-435	146	10.5	59.4	42	0
ID9922407A	144	10.4	59.4	42	0
Malcolm	148.	10.7	59.1	40	0
ORCF-102	136	11.2	59.5	39	17
Stephens	159	11.2	58.6	39	2
Tubbs	141	10.9	58.4	39	0
Tubbs06	154	10.8	58.4	41	0
WB 528	149	11.0	60.4	37	0
Average	147	10.4	59.4	39	2
$LSD_{.10}$[2]	9	0.4	0.6	1.1	13

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 8. Mean grain yield, percent protein, test weight, plant height, and percent lodging of late planted irrigated hard winter and spring wheat genotypes. Parma, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Winter hard reds					
Esperia	133	13.5	60.9	33	0
Hoff	125	12.2	61.6	38	0
ID621	139	12.5	60.4	38	0
ID653	107	13.5	61.5	49	70
Moreland	119	12.4	58.5	36	0
M4	114	14.3	61.5	44	27
Winter hard whites					
Darwin	129	12.7	61.9	46	50
Gary	118	12.1	58.3	44	47
Ivory	142	11.4	60.7	41	0
Mieti	118	12.7	60.2	27	0
Mol	99	14.6	61.2	32	0
NuHorizon	141	11.9	62.9	37	0
Spring hard wheats					
Lochsa (HWS)	137	12.9	61.1	41	0
Sagittario (HRS)	122	12.8	60.9	28	0
WB 936 (HRS)	139	12.7	62.4	36	0
Average	126	12.8	61.5	38	13
$LSD_{.10}$[2]	8	0.5	4.9	2	18

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 9. Mean grain yield, percent protein, test weight, plant height, percent lodging and Julian heading date of late planted irrigated soft white winter wheat. Grandview, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Goetze	60	11.4	57.2	24	0
ID0629 (waxy)	55	11.7	59.2	25	0
ID0630 (waxy)	48	12.7	58.7	24	0
ID99-419	67	10.2	59.7	26	0
ID99-435	58	10.9	59.0	29	0
ID99-22407A	55	10.7	59.5	28	0
Malcolm	57	11.2	60.0	27	0
ORCF-102	57	11.6	58.4	27	0
Stephens	64	11.2	57.8	27	0
Tubbs	49	11.3	57.4	25	0
Tubbs06	59	11.2	58.7	27	0
WB 528	52	11.7	59.5	24	0
Average	57	11.3	58.8	26	0
$LSD_{.10}$[2]	7	0.6	0.7	2	0

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 10. Mean grain yield, percent protein, test weight, plant height, percent lodging and Julian heading date of late planted irrigated hard winter and spring wheat genotypes. Grandview, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Winter hard reds					
Hoff	47	12.4	61.1	26	0
ID621	57	11.6	60.8	24	0
ID653(imi)	47	12.6	60.5	32	0
Moreland	49	13.2	59.5	22	0
M4 (waxy)	29	15.1	57.1	26	0
Winter hard whites					
Darwin	51	13.3	61.5	31	0
Gary	52	11.8	60.4	32	0
Ivory	46	12.2	60.1	26	0
NuHorizon	47	12.0	61.9	23	0
Spring					
Lochsa (HWS)	46	13.6	59.5	23	0
WB 936 (HRS)	39	14.4	59.3	22	0
Average	47	12.9	60.2	26	0
$LSD_{.10}$[2]	6	0.7	.4	2	0

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 11. Mean grain yield, percent protein, test weight, plant height, percent lodging and Julian heading date of dry land soft white winter wheat. Emmett, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Eltan	40	16.2	59.8	25	0
Hubbard	35	16.9	60.0	25	0
ID0587	46	17.1	57.5	24	0
ID0620	37	16.8	59.2	24	0
Malcolm	39	16.7	59.7	39	0
Simon	51	16.6	58.6	24	0
Stephens	42	17.2	57.5	22	0
Tubbs	44	16/7	56.9	25	0
Tubbs06	44	17.2	57.6	25	0
Average	42	16.8	58.5	24	0
$LSD_{.10}$[2]	13	0.9	1.1	2	0

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 12. Mean grain yield, percent protein, test weight, plant height, percent lodging and Julian heading date of dryland hard winter wheat. Emmett, 2007

Entry	Grain Yd[1] bu/A	Protein %	Test Wt. lb/bu	Plant Ht. in	Lodging %
Boundary	35	17.5	58.4	22	0
Buchanan	32	16.6	61.2	28	0
Darwin (HWW)	46	17.0	62.5	29	0
Finley	41	17.2	62.0	27	0
Gary (HWW)	25	17.4	58.4	25	0
Ivory (HWW)	31	17.5	58.5	23	0
Juniper	37	18.4	60.7	31	0
Moreland	43	18.3	58.2	22	0
Promontory	44	17.7	61.4	25	0
Utah 100	42	17.4	57.9	25	0
Average	38	17.5	59.9	26	0
$LSD_{.10}$[2]	12	0.5	1.2	2	0

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 13. Mean grain yield, percent protein, test weight, plant height, percent lodging and Julian heading date of irrigated soft white spring wheat. Parma, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Alturas	137	10.4	61.3	40	0
Cataldo	129	11.6	61.7	38	0
ID629 (waxy)	134	11.3	61.0	40	0
ID630(waxy)	132	12.1	61.1	38	0
ID645	142	10.6	60.7	40	0
Jubilee	127	10.6	59.3	42	0
Pettit	140	10.4	60.7	33	0
Nick	138	11.0	61.5	39	0
Penawawa	124	10.5	60.4	37	0
PenawawaX (waxy)	125	11.0	60.4	38	0
Average	133	11.0	60.8	38.5	0
$LSD_{.10}$[2]	6	0.7	0.7	1	0

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 14. Mean grain yield, percent protein, test weight, plant height, percent lodging, and Julian heading date of irrigated hard spring wheat. Parma, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Hard Red					
Winchester (578)	124	13.6	62.3	37	2
Jefferson	120	13.5	62.2	38	0
Jerome	135	13.6	62.0	37	0
Sagittario	116	13.4	60.3	28	0
WB 936	131	13.4	61.3	36	0
Hard White					
Lochsa	129	13.2	60.1	39	0
Lolo	134	12.5	63.7	40	0
Otis	127	12.5	61.8	44	0
Vaiolet	93	13.9	59.5	26	0
Average	123	13.3	61.4	36	0
$LSD_{.10}$[2]	4	0.6	0.7	1	2

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 15. Mean grain yield, test weight, plant height, and Julian heading date, lodging, and thins of irrigated spring barley. Parma, 2007

	Grain Yd[1]	Test Wt.	Plant Ht.	Lodging	Thins
Entry	bu/A	lb/bu	in	%	%
Two row					
Aquila	160	52.9	43	7	1
Burton	138	52.8	44	67	1
Idagold	173	52.3	34	29	3
Merit	131	49.6	41	82	3
Merlin (hl, w)	158	61.2	35	0	1
Radiant	139	52.3	41	77	3
Spaulding R759-1	148	54.6	41	37	1
WA10701-99	123	51.4	42	79	2
WB Salute (w)	123	51.8	42	84	2
PB1-01-PO4-4220 (hl,w,lp)	123	57.1	42	52	3
01ID435H (hl)	107	52.4	41	82	5
02AH684 (hl)	124	59.1	44	2	1
2B99-2316	109	49.5	39	69	4
2B99-2657	140	49.7	41	54	2
Six row					
Creel	131	48.5	44	80	4
Goldeneye	139	51.8	42	54	1
Herald (lp)	154	48.9	46	22	1
Merit	131	49.6	41	82	3
Millennium	174	50.0	40	19	3
Nebula	178	49.7	35	0	.4
Steptoe	147	48.6	44	85	1
YU599-006 (w)	146	47.7	31	0	1
Average	141	51.9	41	48	2
$LSD_{.10}$[2]	23	1.4	2	24	1

[1]Grain yield is based on a test weight of 48 lb/bu for barley, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 16. Mean grain yield, percent protein, test weight, plant height, percent lodging and Julian heading date of irrigated soft white spring wheat. Weiser, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Cataldo	130	11.5	61.9	34	0
Alturas	139	11.1	61.9	36	0
ID0629 (waxy)	132	11.6	61.7	37	0
ID0630 (waxy)	127	12.1	62.6	34	0
Pettit	133	10.5	61.2	29	0
ID0645	133	10.9	62.6	37	0
Jubilee	128	11.7	61.7	38	0
Nick	131	11.5	62.8	36	0
Penawawa	126	11.8	62.8	34	0
PenawawaX (waxy)	133	11.9	62.9	33	0
Average	131	11.5	62.2	35	0
$LSD_{.10}$[2]	8	0.7	0.7	2	0

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 17. Mean grain yield, percent protein, test weight, plant height, percent lodging, and Julian heading date of irrigated hard spring wheat. Weiser, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Hard Red					
Jefferson	109	15.1	61.9	37	20
Jerome	141	14.1	63.1	34	0
Sagittario	119	14.6	61.2	27	0
WB 936	133	14.9	62.6	32	0
Winchester	113	14.3	62.6	35	2
Hard White					
Lochsa	130	14.9	61.7	36	0
Lolo	126	13.8	64.0	37	0
Otis	120	14.0	61.6	42	7
Voiolet	109	13.9	61.1	24	2
Average	122	14.4	62.2	34	3
$LSD_{.10}$[2]	13	1.8	1.5	1	13

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 18. Mean grain yield, test weight, plant height, and Julian heading date, lodging, and thins of irrigated spring barley. Weiser, 2007

Entry	Grain Yd[1] bu/A	Test Wt. lb/bu	Plant Ht. in	Lodging %	Thins %
Two row					
Burton	134	53.3	36	17	1
Idagold	123	50.6	28	12	4
Merit	80	48.0	33	55	8
Merlin (hl, waxy)	128	61.7	29	10	2
PBI-04-P04-4222					4
Radiant	123	52.6	35	65	4
WA10701-99	132	51.2	35	55	2
WB Salute (waxy)	94	51.7	36	30	2
Clear Water 435h (hl)	75	55.3	38	65	7
02AH684 (hl)	116	59.5	34	0	2
2B99-2316	94	48.6	33	67	7
2B99-2657	118	49.8	35	75	4
Six row					
Aquila	133	54.8	33	2	2
Creel	134	51.1	36	45	2
Goldeneye	145	51.5	34	60	1
Herald (low phy)	129	51.9	37	12	2
Legacy	120	51.6	35	55	2
Millennium	154	51.4	33	20	1
Nebula	146	50.5	27	0	.6
Steptoe	137	51.4	37	20	1
YU599-006 (waxy)	140	50.2	28	10	.5
Average	122	52.7	34	37	3
$LSD_{.10}$[2]	26	2.2	3	34	2

[1]Grain yield is based on a test weight of 48 lb/bu for barley, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 19. Mean grain yield, percent protein, test weight, plant height, percent lodging and Julian heading date of irrigated soft white spring wheat. Kuna, 2007

Entry	Grain Yd[1] bu/A	Protein %	Test Wt. lb/bu	Plant Ht. in	Lodging %
Alturas	111	9.9	61.2	32	0
Cataldo	90	11.9	58.9	30	0
ID0629 (waxy)	111	11.1	61.0	34	0
ID0630 (waxy)	107	11.2	62.4	33	0
ID0645	100	11.5	63.2	34	0
Jubilee	105	10.6	62.7	32	0
Nick	106	10.5	62.5	33	0
Penawawa	101	10.9	62.7	32	0
PenawawaX (waxy)	100	11.3	62.1	30	0
Pettit	103	10.4	61.3	26	0
Average	103	10.9	61.8	32	0
$LSD_{.10}$[2]	11	0.9	1.5	2	0

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.

Table 20. Mean grain yield, percent protein, test weight, plant height, percent lodging, and Julian heading date of irrigated hard spring wheat. Kuna, 2007

	Grain Yd[1]	Protein	Test Wt.	Plant Ht.	Lodging
Entry	bu/A	%	lb/bu	in	%
Hard Red					
Jefferson	90	13.5	62.9	31	0
Jerome	90	13.0	63.3	30	0
Sagittario	88	12.2	61.5	24	0
Winchester	81	12.8	63.6	30	
WB 936	80	13.8	62.2	25	0
Hard White					
Lochsa	93	13.5	62.2	29	0
Lolo	100	11.9	64.1	32	0
Otis	107	11.3	63.9	33	0
Vaiolet	80	12.7	58.0	18	0
Average	90	12.8	62.4	28	0
$LSD_{.10}$[2]	12	0.7	1.3	2	0

[1]Grain yield is based on a test weight of 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

[2]Means must differ by more than the $LSD_{.10}$ to be statistically different at the 10% probability level.