Research Bulletin 183
May 2014

2012 Small Grain and Grain Legume Report

Northern Idaho Small Grain and Grain Legume Research and Extension Program

Doug Finkelnburg

University of Idaho
College of Agricultural and Life Sciences

Cover photo: Wheat infected with stripe rust displaying a susceptible reaction. Photo by Doug Finkelnburg

Published and distributed by the Idaho Agricultural Experiment Station, Donn Thill, Director, University of Idaho College of Agricultural and Life Sciences, Moscow, Idaho 83844-2337.

© 2014 by the University of Idaho

2012 Small Grain and Grain Legume Report

Northern Idaho Small Grain and Grain Legume Research and Extension Program

Funding for this project provided by:

Idaho Wheat Commission
USA Pea and Lentil Council
Idaho Barley Commission

Doug Finkelnburg [1]

Plant Science Division
Department of Plant, Soil and Entomological Sciences
University of Idaho
Moscow, ID 83844-2339

http://www.extension.uidaho.edu/cereals

[1]Extension Educator Phone (208) 799-3096, email - dougf@uidaho.edu

ACKNOWLEDGMENTS

Partial funding for these small grain and legume performance evaluations was provided by Idaho wheat, barley, and grain legume producers through cooperative research and extension grants from the Idaho Wheat and Barley Commissions and the USA Pea and Lentil Council. Support was also provided by the Idaho Agricultural Experiment Station and the Cooperative Extension System of the University of Idaho. Fees paid by seed companies were also used to support the evaluations. This report represents the collective efforts of many individuals. The off-station nurseries were coordinated locally by County Educators with the Idaho Cooperative Extension System. Grower-cooperators provided their time, land and other inputs for management of these trials and appreciation is expressed to them for their support. The University of Idaho Wheat Quality Laboratory at Aberdeen determined the protein content and kernel hardness of harvested spring and winter wheat samples. Appreciation is also expressed to the numerous support workers who assisted with trial establishment, maintenance, harvest, and grain processing. Finally, cereal breeders throughout the Northwest are recognized for their contributions since the nurseries would not be possible without their entries. The author wishes to thank all who have contributed to the success of this project.

Grower Cooperators

Kurt Blume - Genesee
Ron Stone- Craigmont
Roger Riggers - Craigmont
Kyle Morscheck- Genesee
Bert Henriksen – Lewiston
Russ Zenner – Genesee
Doug Bruce – Tensed
Tim Dillin – Bonners Ferry

Plant Breeders

Bob Zemetra
Jianli Chen
Mike Pumphry
George Vandemark
Rebecca McGee
Aaron Carter
Don Obert
Jim Peterson
Kim Kidwell
Mike Wood
Kurt Braunwart
Richard Cooley
Dale Clark
John Moffatt
Jean-Bruno Beaufume
Kim Garland-Campbell

Industry Cooperators

WestBred/Monsanto
AgriPro/Syngenta Cereals
ProGene LLC
PNW Cooperative
Primeland Cooperative
Limagrain Cereals
Plant Breeders 1
Wilbur-Ellis Co.
AllStar, Inc
Limagrain Cereal Seeds

Extension Educators

Jennifer Jensen
Ken Hart

County Specialists

Judy Floch

U of I Employees

Roy Patten
Juliet Marshall
Katherine O' Brien
Brad Bull
David Brooks
Brad Huffman
Evan Dixon
Brad Pakish
Cole Senefsky
Larry Caudill
Jack Fellman
Krishna Humagain

Table of Contents

ACKNOWLEDGMENTS ii
TABLE OF CONTENTS iii
INTRODUCTION 1
Cereal Test Procedures 1
Legume Test Procedures 2
Statistical Interpretation 2
Growing Conditions and Factors Affecting Trials 3

TRIAL LOCATIONS, MANAGEMENT AND VARIETIES TESTED
Table 1. 2011-2012 Northern Idaho variety trial site management information 4
Table 2. Released varieties tested in northern Idaho variety trials 9

WINTER WHEAT
Table 3. Soft white winter wheat variety performance results at Craigmont 13
Table 4. Soft white winter wheat variety performance results at Lewiston 14
Table 5. Soft white winter wheat variety performance results at Genesee 15
Table 6. Soft white winter wheat variety performance results at Moscow 16
Table 7. Soft white winter wheat variety performance results at Tensed 17
Table 8. Soft white winter wheat variety performance results at Bonners Ferry 18
Table 9. Soft white winter wheat variety performance comparison in northern Idaho 19
Table 10. Hard winter wheat variety performance results at Craigmont 20
Table 11. Hard winter wheat variety performance results at Lewiston 21
Table 12. Hard winter wheat variety performance results at Genesee 22
Table 13. Hard winter wheat variety performance results at Moscow 23
Table 14. Hard winter wheat variety performance results at Tensed 24
Table 15. Hard winter wheat variety performance results at Bonners Ferry 25
Table 16. Hard winter wheat variety performance comparison in northern Idaho 26

SPRING WHEAT
Table 17. Soft white spring wheat variety performance results at Craigmont, ... 27
Table 18. Soft white spring wheat variety performance results at Genesee 28
Table 19. Soft white spring wheat variety performance results at Bonners Ferry 29
Table 20. Soft white spring wheat variety performance comparison in northern Idaho 30
Table 21. Hard spring wheat variety performance results at Craigmont 31
Table 22. Hard spring wheat variety performance results at Genesee 32
Table 23. Hard spring wheat variety performance results at Bonners Ferry 33
Table 24. Hard spring wheat variety performance comparison in northern Idaho 34

SPRING BARLEY
Table 25. Spring barley variety performance results at Craigmont 35
Table 26 Spring barley variety performance results at Genesee 36
Table 27. Spring barley variety performance results at Moscow 37

Table 28. Spring barley variety performance results at Bonners Ferry 38
Table 29. Spring barley variety performance comparison in Northern Idaho 39
SPRING PEAS
Table 30. Dry pea variety performance results at Craigmont 40
Table 31. Dry pea variety performance southeast of Genesee, Nez Perce Co. 41
Table 32. Dry pea variety performance northwest of Genesee, Latah Co. 42
Table 33. Dry pea variety performance results at Moscow.....43
Table 34. Combined dry spring pea results in northern Idaho.....44

SPRING LENTILS
Table 35. Lentil variety performance at Craigmont,.....45
Table 36. Lentil variety performance southeast of Genesee, Nez Perce Co. 46
Table 37. Lentil variety performance northwest of Genesee, Latah Co. 47
Table 38. Lentil variety performance results at Moscow.....48
Table 39. Combined lentil results in northern Idaho 49

SPRING CHICKPEAS
Table 40. Chickpea variety performance northwest of Genesee, Nez Perce Co. 50

WINTER PEAS
Table 41. Winter barley variety performance results at Bonners Ferry 51

WINTER BARLEY
Table 42. Winter barley variety performance results at Bonners Ferry 52

Introduction

This report summarizes the performance of winter wheat, spring wheat, spring barley, winter pea, spring pea, lentil and chickpea cultivars tested in extension variety trials conducted in northern Idaho during the 2011-2012 crop season. The variety trials were located in cooperators' fields at 8 test sites in Lewis, Nez Perce, Latah, Benewah and Boundary counties.

Plant breeding and extension testing programs strive to increase yield potential through enhanced disease and insect resistance, winter hardiness, straw strength and other agronomic factors. In addition, varieties are developed for improved end-use quality and new markets. A more detailed description of variety development, cooperative extension testing and evaluation, and seed production programs is given in the University of Idaho publication CIS 976 titled, "Small Grain Variety Development and Adaptation in Idaho". Additional variety performance data for northern Idaho and the rest of the state can be viewed at the website http://www.extension.uidaho.edu/cereals/. In Idaho, public varieties are evaluated for general adaptation in regional testing programs. The northern Idaho Extension variety-testing program evaluates the relative performance of cereal and legume varieties grown in various northern Idaho environments under a range of commercial production conditions. Breeding lines that have shown promise through regional, public and private testing programs are evaluated along with leading commercially released varieties.

Increases in field crop yield are the result of a combination of improved agronomic practices and advances in variety development. Trials reported in this publication help producers compare new cultivars with widely grown cultivars using field production practices common for their area. The information provided represents crop performance results from specific locations, production practices, and environmental conditions. Relative performance of varieties can change when tested under other environments and production practices. Evaluation of any variety included in these trials should not be construed as recommending any variety over varieties not included in the trials.

Cereal Test Procedures

Thirteen winter cereal trials were planted in northern Idaho during the fall of 2011 and 10 spring cereal trials were planted in the spring of 2012. For each crop, the seeding rate for all entries was a common number of seeds planted per square foot. These rates were determined by weighing 300 seeds of each cereal cultivar. Winter wheat and spring barley were planted at 24 seeds per square foot, and spring wheat at 28 seeds per square foot. Winter wheat, spring wheat, and barley seed were treated with 1 ounce of Dividend Extreme per 100 pounds of seed. Plots in conventional tillage systems were planted 15 feet long on 5-foot centers with 7 rows, 7-inches apart. Direct-seeded trials had 5 paired rows with 3-inch spacing and 10-inch from center to center of pairs. Typical cereal seeding depth varied from 1 to 1.5 inches depending on soil texture and moisture conditions. All trials were replicated 3 or 4 times in complete randomized design (CRD) or a randomized complete block design (RCBD). After plants were well established, the plots were cut back to a plot size of approximately 11.5 feet in length with an application of glyphosate using a tractor-mounted, shielded sprayer. All trials were established and maintained primarily under "grower management" conditions. Fertilizers and pesticides used in the trials are listed in Table 1 for the sites where the information was reported. Planting and harvesting operations by University of Idaho personnel were timed to approximately coincide with the cooperator's operations.

Each small grain entry at each location was evaluated for grain yield, test weight, plant height, and lodging. Plot length was measured to determine each individual plot area. Cereal yields were reported in bushels per acre, using the standard 60 pounds per bushel conversion for wheat and 48 pounds per bushel for barley. Protein and kernel hardness were determined from a composite sample of three or four replications from each site for both winter and spring wheat. Wheat whole grain protein at 12% moisture was measured at the University of Idaho Wheat Quality Laboratory at Aberdeen using Near Infrared Spectrometry (NIRS) technology. Kernel hardness was also determined by NIRS. Values under 35 indicate soft wheat and values above 35 indicate hard wheat. Cereal test weight is reported in pounds per standard bushel. Cereal plant height is the length of the plant from the soil surface to the tip of the head (awns excluded).

Lodging was determined for all cereals. Area affected was scored from 0% to 100%, with 0% equal to no lodging and 100% being completely lodged. Percentage grain plumps and thins were measured for barley. Plumpness is the percent of the sample that stayed on top of a 6/64-inch slotted screen after shaking. Thin percentage is the portion of the sample that went through a 5.5/64-inch slotted screen.

Legume Test Procedures

In the spring of 2012, spring pea and lentil trials were seeded near Craigmont, Genesee and Moscow. A chickpea trial was conducted at the University of Idaho's Kambitsch farm northwest of Genesee. For each legume cultivar, 100 seeds were weighed and seeding rates calculated to give a planting density of pea at 8 seeds per square foot, lentil at 9 seeds per square foot, and chickpea at 6 seeds per square foot. Spring pea and lentil seed were treated with 2 ounces of an Apron, Cruiser, and Maxim mix per 100 pounds of seed and chickpea seed was treated with 2.5 oz of "Garb mix" (Apron, Cruiser, Maxim and LSP) per 100 pounds of seed. Legume plots were established in a manner similar to the cereal trials; they were planted at 20 feet long and were cut back to 15 feet after establishment. Planting depths used were between 1 and 2 inches for lentils and between 1.5 and 2.5 inches for pea and chickpea. Sites were hand-weeded to supplement chemical control. Legumes were evaluated for seed yield, plant height, and 100-seed weight. Seed yields were expressed as pounds per acre. Lentil or chickpea plant heights or pea vine lengths were measured from soil surface to end of growing point on the main tiller. Pea canopy heights were measured from the soil surface to the average tall point in the canopy approximately three weeks prior to harvest.

Statistical Interpretation

Crop class averages are shown within the body of the data tables and overall trial average is shown at the bottom of the table. The least significant difference (LSD) and the coefficient of variation (CV) are listed. The LSD is given at the 5% error level and is an aid in comparing varieties. If the measured values of any two varieties within a column differ by the LSD value or greater, they may be considered different with a confidence level of 95%. If the measured values are less than the LSD value, the differences may be due to random error rather than real differences. If no significant statistical differences were found among cultivars, NS is shown for the LSD. Where data represent cultivar means across locations, an approximation of combined LSD was calculated. For 2012 yields, varieties statistically equal to the top yielding variety are presented in bold type face. Coefficient of variation (CV) is also included in the tables. This is given as a general measurement of the precision of each experiment. Lower CV percentage values indicate less experimental variation and greater precision. CV values were not averaged across trials or

years. Wheat protein and hardness data are from composited samples, therefore no LSD or CV values are presented.

Cultivar choice should take into consideration as much performance data as possible with comparisons across years and locations. In addition to yield, end use quality, disease and insect resistance, lodging tendency, maturity, plant height, winter hardiness, test weight, and any observations from grower experience can be used in deciding on which cultivars to plant. The Idaho Wheat Commission website also provides a list of recommended varieties: www.idahowheat.org under "Preferred Varieties".

Growing Conditions and Factors Affecting Trials

Fall cereal trials were planted in October 2011. Winter wheat trial stands were well established at all locations. Winter temperatures across northern Idaho were mild and winter crop survived well. Late spring and early summer precipitation was above average in all locations, but late the summer was dry and conditions remained dry well into fall planting. *Cephelosporium* Stripe was observed in winter wheat in both re-cropped fields and fields with a three-year rotation including legumes. Stripe-rust occurred in low to moderate levels across the Palouse and Camas Prairies in mid to late summer of 2012. Late summer hail storms severely damaged enough acres in Nez Perce County to gain a county disaster designation in early July. The average winter wheat yield over all locations in 2011-2012 was 3 bushels/acre less than the average yield over the previous 3 crop years.

Spring trials were seeded between April 15 and May 14, 2012 (see Table 1). Frequent weather systems brought cool temperatures and precipitation throughout the planting season. Spring wheat yields in 2012 were 17 bushels/acre higher than the previous 3-year average. Spring barley yields were 15 bushels/acre higher than the previous 3-year average. Specific management practices for individual trials are listed in Table 1.

Trial Locations, Management and Varieties Tested

Table 1. 2011-2012 Northern Idaho Extension variety trial site management information.

County	Nursery Location	Rainfall Zone (inches)	Elevation (feet)	Production System	Planting Date	Harvest Date	Previous Crop	Fertilizer[1] N-P-K-S(lb/A)	----Chemical---- Name(s)	Rates(s)
Winter Cereals - Soft White Winter Wheat										
Lewis	Nezperce	22"	3200'	Direct Seed	9/30/11	8/22/12	W. Wheat	100-32-0-24	BMP[2]	
Nez Perce	Tammany	14"	1660'	Conventional Tillage	10/8/11	7/26/12	S. Fallow	100-10-0-10 (f)	Powerflex	3.5 oz/A
									Brox-M	6 oz/A
									Orion	17 oz/A
									Tilt	4 oz/A
Nez Perce	Genesee	20"	2700'	Conventional Tillage	10/7/11	8/4/12	W.Wheat		BMP[2]	
Latah	Moscow Parker Farm	24"	2630'	Direct Seed	10/8/11	8/13/12	S. Pea	100-32-0-24 (f)	Roundup RT	20 oz/A Pre
								43- 0-0-8 (s)	Huskey	12 oz/A
									Affinity Broad	0.8 oz/A
									Puma	11 oz/A
Benewah	Tenesed	27"	2600'	Conventional Tillage	10/3/11	8/26/12	Lentils	120-32-0-22 (f)	Bronate	12 oz/A
								30-0-0-7 (s)	Ospray	4.5 oz/A
									Tilt	4 oz/A (twice)
									Peak	3 oz/A
Boundary	B. Ferry	25"	1750'	Direct Seed	10/14/11	8/22/12	S. Canola	100-10-0-15(f)	Powerflex	3.5 oz/A
								43-18-18-6(s)	Headline	9 oz/A
									Tilt	4oz/a
Winter Cereals - Hard Winter Wheat										
Lewis	Nezperce	22"	3200'	Direct Seed	9/30/11	9/14/11	W. Wheat	120-10-0-16(f)	BMP2	
								31-10-0-8(s)	Quilt	7oz/A

1- (f)-fall applied fertility, (s)-spring applied fertility

2- BMP - Recommended best management practice rates of chemical application.

Table 1 (continued). 2011-2012 Northern Idaho Extension variety trial site management information.

County	Nursery Location	Rainfall Zone (inches)	Elevation (feet)	Production System	Planting Date	Harvest Date	Previous Crop	Fertilizer[1] N-P-K-S(lb/A)	----Chemical---- Name(s)	Rates(s)
Winter Cereals - Hard Winter Wheat										
Nez Perce	Tammany	14"	1660'	Conventional Tillage	10/8/11	7/26/12	S. Fallow	100-10-0-10 (f) 30-10-0-7 (s)	Powerflex Brox-M Orion Tilt	3.5 oz/A 6 oz/A 17 oz/A 4 oz/A
Nez Perce	Genesee	20"	2700'	Direct Seed	10/7/11	8/22/12	W.Wheat	160-10-0-15	BMP[2]	
Latah	Moscow Parker Farm	24"	2630'	Direct Seed	10/8/11	8/9/12	S. Pea	173-42-0-40	Roundup RT Huskey Affinity Broad Puma Spectrum Quilt	20 oz/A Pre 12 oz/A 0.8 oz/A 11 oz/A 7oz/A
Benewah	Tenesed	27"	2600'	Conventional Tillage	10/3/11	8/26/12	Lentils	120-32-0-22 (f) 60-0-0-7 (s)	Bronate Ospray Tilt Peak	12 oz/A 4.5 oz/A 4 oz/A (twice) 3 oz/A
Boundary	B.Ferry	25"	1750'	Direct Seed	10/14/11	8/22/12	S. Canola	100-10-0-15(f) 43-18-18-6(s)	Powerflex Headline Tilt	3.5 oz/A 9 oz/A 4oz/a
Spring Cereals - Soft Spring Wheat										
Lewis	Craigmont	22"	3650'	Conventional Tillage	5/2/12	9/5/12	W. Wheat	104-8-0-6	Orion Ally	17 oz./A 0.10 oz./A
Nez Perce	Genesee	20"	2650'	Direct Seed	4/27/11	9/1/11	W. Wheat	60-0-0-0 (f) 30-10-0-8 (s)	Roundup (RT-3) Orion MCPA Ester Tilt	1 pt/A Pre (F+S) 17 oz/A 8 oz/A 4 oz/A
Boundary	B. Ferry	25"	1750'	Direct Seed	5/11/12	9/14/12	S. Canola	97-15-0-11	Axial Headline Tilt Afinity Broad Spec Wildcard	 8 oz/A 4oz/A

1- (f)-fall applied fertility, (s)-spring applied fertility

Table 1 (continued). 2011-2012 Northern Idaho Extension variety trial site management information.

County	Nursery Location				Planting Date	Harvest Date	Previous Crop	Fertilizer N-P-K-S(lb/A)	----Chemical---- Name(s)	Rates(s)
Spring Cereals - Hard Spring Wheat										
Lewis	Craigmont	22"	3650'	Conventional Tillage	5/2/12	5/12/12	W. Wheat	128-15-0-12	Orion	17 oz./A
									Ally	0.10 oz./A
Nez Perce	Genesee	20"	2650'	Direct Seed	4/15/12		W. Wheat	60-0-0-0 (f)	Roundup (RT-3)	1 pt/A Pre (F+S)
								62-20-0-15(s)	Orion	17 oz/A
									MCPA Ester	8 oz/A
									Tilt	4 oz/A
Spring Cereals - Hard Spring Wheat										
Boundary	B. Ferry	25"	1750'	Direct Seed	5/11/12	5/14/12	Canola	106-18-0-14	Axial	
									Headline	8 oz/A
									Tilt	4oz/A
									Afinity Broad Spec	
									Wildcard	
Spring Cereals - Spring Barley										
Lewis	Craigmont	22"	3650'	Conventional Tillage	5/2/12	9/8/11	W. Wheat	80-0-0-0	Orion	17 oz./A
									Ally	0.10 oz./A
Nez Perce	Genesee	20"	2650'	Direct Seed	4/15/12		W. Wheat	60-0-0-0(f)	Roundup (RT-3)	1 pt/A Pre (F+S)
								31-10-0-8(s)	Orion	17 oz/A
									MCPA Ester	8 oz/A
									Tilt	4 oz/A
Latah	Moscow Parker Farm	24"	2630'	Direct Seed	5/10/12		W. Wheat	80-26-0-20	Roundup	20 oz/A Pre
									Huskie	13 oz./A
Boundary	B. Ferry	25"	1750'	Direct Seed	5/11/12	5/14/12	S. Canola	75-8-0-6	Axial	
									Headline	8 oz/A
									Tilt	4oz/A
									Afinity Broad Spec	
									Wildcard	

1- (f)-fall applied fertility, (s)-spring applied fertility

Table 1 (continued). 2011-2012 Northern Idaho Extension variety trial site management information.

County	Nursery Location				Planting Date	Harvest Date	Previous Crop	Fertilizer N-P-K-S(lb/A)	----Chemical---- Name(s)	Rates(s)
Legumes - Winter Peas										
Latah	Moscow	24"	2600'	Conventional	10/8/12	8/12/12	Fallow	None	Roundup	32 oz/A Pre
	Parker Farm			Tillage					Warrior II	1.9 oz/A(twice)
Legumes - Spring Peas										
Latah	Moscow	24"	2630'	Direct Seed	5/10/12	8/13/12	S. Barley	None	Roundup	32 oz/A Pre
	Parker Farm								Warrior II	1.9 oz/A
Nez Perce	Genesee	20"	2600'	Direct Seed	4/22/12	8/13/12	S. Barley		Lorox	1 1/4 lb/A
	Zenner Farm								Sencor	1/4 lb/A
									Dimethoate	1/3 pt/A
									Select	12 oz/A
									Quadris	4 oz/A
Latah	Genesee	20"	2800'	Conventional	5/7/02	8/16/12	S. Barley	None	Roundup	20 oz/A Pre
	Kambitsch			Tillage					Tricor	1/4 lb. A
	Farm								Prowl	2 pt./A
									Warrior II	1.9 oz/A
Lewis	Craigmont	22"	3300'	Conventional	5/9/12	8/28/12	S. Wheat		Persuit	
				Tillage					Sencor	
Legumes - Spring Lentils										
Latah	Moscow	24"	2615'	Conventional	5/14/12	8/25/12	S. Barley	None	Roundup	32 oz/A Pre
	Parker Farm			Tillage					Tricor	1/4 lb./A
									Warrior II	1.9 oz/A
Latah	Genesee	20"	2800'	Direct Seed	5/7/12	8/24/12	S. Barley	None	Roundup	20 oz/A Pre
	Kambitsch								Tricor	1/4 lb. A
	Farm								Prowl	2 pt./A
									Warrior	2.6 oz./A
Nez Perce	Genesee	20"	2600'	Direct Seed	4/22/12	8/13/12	Barley	None	Roundup	16 oz/A Pre
	Zenner Farm								Dimethoate	16 0z/A
									Select	10 oz./A
									Warrior II	1.9 oz/A
Lewis	Craigmont	22"	3300'	Conventional	5/9/12	8/28/12	S. Wheat	None	Persuit	
				Tillage					Sencor	

.

Table 1 (continued). 2011-2012 Northern Idaho Extension variety trial site management information.

County	Nursery Location				Planting Date	Harvest Date	Previous Crop	Fertilizer N-P-K-S(lb/A)	----Chemical---- Name(s)	Rates(s)
Legumes - Spring										
Chickpeas										
Latah	Genesee Kambitsch Farm	20"	2800'	Conventional Tillage	5/7/12	9/12/12	S. Barley	None	Roundup	20 oz/A Pre
									Tricor	1/4 lb. A
									Prowl	2 pt./A
									Warrior	2.6 oz./A

1- (f) fall applied fertility, (s) spring applied fertility
2- BMP - Recommended best management practice rates of chemical application.

Table 2. Released varieties tested in Northern Idaho Extension variety trials in 2011-2012.

Variety	Experimental No.	Released	Developer(s) of variety
Soft white winter wheat			
Bitterroot	ID 92-22407A	2007	University of Idaho
Bruneau	ID 93-64901A	2009	University of Idaho
Brundage-96	ID-B-96	2001	University of Idaho
Madsen	WA 7163	1988	Washington State University/USDA-ARS
ORCF-102	OR2010007	2004	Oregon State University
Simon	ID 91-34302A	2002	University of Idaho
Stephens	OR 65-116	1977	Oregon State University
Skiles	ORH010085	2007	Oregon State University
UICF-Brundage	ID 02-859	2009	University of Idaho
UICF-Lambert	ID 99-435	2008	University of Idaho
ARS-Amber	ARS960277L		Washington State University/USDA-ARS
SY-Ovation	30PN-108#21		Syngenta Cereals
Mary	OR2040726		Oregon State University
WB-528	BZ 6W98-528	2004	WestBred/Monsanto
WB-523	BU6WOO-523		WestBred/Monsanto
WB-456	BU6W99-456	1994	WestBred/Monsanto
WB-Junction	BZ-6W02-616	2012	WestBred/Monsanto
AP-Legacy	AP 267-3	2009	Syngenta Cereals
AP-Badger		2010	Syngenta Cereals
Art-Deco	NSA-2153A		Liagrain Cereal Seeds
WB-1066CL			WestBred/Monsanto
WB-1070CL			WestBred/Monsanto
AP-700CL		2007	Syngenta Cereals
Winter club wheat			
Cara	ARS97135-9	2007	Washington State University/USDA-ARS
Chukar	WA 7855	2001	Washington State University/USDA-ARS
ARS-Chrystal	ARS-970075-3C	2012	Washington State University/USDA-ARS
ARS-Crescent	ARS-970163-4C	2012	Washington State University/USDA-ARS
Hard winter wheat			
Boundary (R)	IDO 467	1997	University of Idaho, USDA/ARS
Esparia (R)			AllStar Seeds
Norwest-553 (R)	ORN00B553	2007	OSU, USDA/ARS with Nickerson, UK
UI-SRG (R)	IDO 656	2011	University of Idaho, USDA/ARS
UI-Silver (W)	IDO 658	2011	University of Idaho, USDA/ARS
UICF-Grace (W)	IDO 651	2011	University of Idaho, USDA/ARS
WB-Rimrock			WestBred/Monsanto
WB-Arrowhead			WestBred/Monsanto
Genesis			AllStar Seeds
Azimut			Limagrain Cereal Seeds
Altigo			Limagrain Cereal Seeds
Eddy	BZ9W96-788-e		WestBred/Monsanto

Table 2 (cont.) Released varieties tested in Northern Idaho Extension variety trials in 2011-2012.

Variety	Experimental No.	Released	Developer(s) of Variety
Winter barley			
Charles (malt)	ARS92Ab1274	2005	University of Idaho, USDA/ARS
Endeavor (malt)	ARS95Ab2299	2007	University of Idaho, USDA/ARS
Sprinter		1987	WestBred, LLC, Bozeman, MT
Sunstar Pride		1995	Sunderman Breeding
Strider		1998	Oregon State University, USDA/ARS
Soft white spring wheat			
Alturas	IDO 526	2002	University of Idaho, USDA/ARS
Babe	WA 8039	2009	Washington State University/USDA-ARS
Diva	WA 8090	2009	Washington State University/USDA-ARS
JD	WA 8047	2009	Washington State University/USDA-ARS
Nick	BZ 698-31	2000	WestBred/Monsanto
Penawawa		1985	Washington State University/USDA-ARS
Whit	WA 8008	2008	Washington State University/USDA-ARS
WB-1035CL2			WestBred/Monsanto
UI-Stone	IDO599	2012	University of Idaho, USDA/ARS
Hard white spring wheat			
Lolo	IDO 533	1999	University of Idaho, USDA/ARS
WB-Hartline			WestBred/Monsanto
Hard red spring wheat			
Albany		2009	Limagrain Cereal Seed, LLC
Buck Pronto		2001	Limagrain Cereal Seed, LLC
AP-Bullseye	BO2-0081	2009	AgriPro
Cabernet			Resource Seeds
Jefferson	IDO 462	1998	University of Idaho, USDA/ARS
Kelse	WA 7954	2009	Washington State University/USDA-ARS
WB-Fuzion	BZ901-717	2008	WestBred/Monsanto
WB-Volt		2008	WestBred/Monsanto
Glee	WA 8074	2012	Washington State University/USDA-ARS
UI-Winchester	IDO 578	2009	University of Idaho, USDA/ARS
WB-Expresso		2007	WestBred/Monsanto
Two-row spring barley			
Baronesse (feed)	NS 078054	1992	WestBred/Monsanto
Camas (feed)	ND 9147	1998	University of Idaho, USDA/ARS
Champion (feed)	YU-501-385D		WestBred/Monsanto
Spaulding (feed)	PB1-95-2R-522	2005	Plant Breeders 1, Moscow, ID
Harrington (malt)	TR-441	1981	University of Saskatchewan, Canada
Lenetah (feed)	01Ab11107	2007	University of Idaho, USDA/ARS
Merit (malt)		2000	Busch Ag. Resources, Inc.
AC Metcalfe (malt)	TR-232	1994	Ag. Canada

Table 2 (cont.) Released varieties tested in Northern Idaho Extension variety trials in 2011-2012.

Variety	Experimental No.	Released	Developer(s) of variety
Two-row spring barley			
CDC-Copeland (malt)		1999	University of Saskatchewan, Canada
CDC-Merideth (malt)		2008	University of Saskatchewan, Canada
Clearwater	01ID435H	2008	University of Idaho, USDA/ARS
Xena			WestBred, LLC, Bozeman, MT
Six-row spring barley			
Tradition (malt)	6B95-2482	2003	Busch Ag. Resources, Inc.
Aquila (feed)		2003	Utah Agricultural Expirimental Station
Millenium (feed)	UT004603	1999	Utah Agricultural Expirimental Station
Lentils			
Brewer		1984	Washington State University/USDA-ARS
Crimson		1990	Washington State University/USDA-ARS
Eston		1980	University of Saskatchewan, Canada
Essex		2010	Washington State University/USDA-ARS
Merrit	LC 460266B	2001	Washington State University/USDA-ARS
Pardina			Spain
Morena	LC 02601144P	2011	Washington State University/USDA-ARS
Richlea			Ag. Canada
Riveland			Washington State University/USDA-ARS
Avondale	LC 10602300R	2012	Washington State University/USDA-ARS
Yellow peas			
Carousel	SW 995848	2004	ProGene
Universal		2000	Svalof Weibull
Green peas			
Aragorn		2007	ProGene
Ariel	NZ 4L25	2001	Crop and Food Research, New Zealand
Banner	Pro 031-7053	2007	ProGene
Columbian			Campbell Soup Co.
Pacifica	Pro 011-7107	2003	ProGene
Greenwood	Pro 7040	2012	ProGene
Kabuli chickpeas			
Dwelley		1994	Washington State University, USDA/ARS
Dylan	CA 9990I604C	2005	Washington State University, USDA/ARS
Sierra	CA 9783152C	2001	Washington State University, USDA/ARS
Billy Beans		2010	PNW COOP
Saywer	CA0090B347C	2010	Washington State University, USDA/ARS
CDC-Frontier		2003	University of Saskatchewan, Canada

Table 2 (cont.) Released varieties tested in Northern Idaho Extension variety trials in 2011-2012.

Variety	Experimental No.	Released	Developer(s) of variety
Kabuli chickpeas			
CDC-Alma		2010	University of Saskatchewan, Canada
CDC-Orion		2010	University of Saskatchewan, Canada
Winter Feed Peas			
Specter	PS9830F009	2006	Washington State University, USDA/ARS
Windham		2006	Washington State University, USDA/ARS
Whistler			ProGene

Winter Wheat

Table 3. Soft white winter wheat variety performance results at Nezperce, 2011-2012.

Variety or Selection	Three-Year Yield bu/A	Two-Year Yield bu/A	2011-2012+ Crop Year Trial Yield bu/A	Test Weight lb/bu	Plant Height inches	Seed Protien %	Hardness Score 0-100
Soft White*							
OR08047P94			**107**	57.9	36	11.1	24
ARS-Chrystal[C]			**107**	58.9	42	11.4	25
ARS-Crescent[C]			**107**	58.6	41	9.9	26
Skiles	71	90	**103**	58.9	35	12.1	23
ID96-16702A		95	**103**	60.0	43	11.5	27
AP-Badger	75	95	**101**	58.1	34	11.7	32
SY-Ovation			**100**	59.6	38	12.2	29
Cara[C]	73	94	**99**	57.2	38	11.5	32
WB-523		92	**98**	59.9	37	12.5	28
Chukar[C]	72	93	**98**	57.6	41	11.4	31
Art Deco			96	57.2	34	11.9	27
Kaseberg			96	57.9	36	10.9	25
ARS-Amber			96	58.2	40	12.0	30
Mary		91	95	59.3	36	12.0	27
ORCF-102	77	95	91	58.6	38	12.1	34
UICF-Brundage	70	89	87	57.5	36	12.1	26
Bitterroot	76	94	86	58.1	39	12.3	27
WB-1066CL		83	85	61.4	40	13.9	36
Brundage-96	68	89	85	57.4	35	12.1	30
Bruneau	69	88	84	56.7	37	12.0	24
Madsen	68	87	84	57.2	36	12.8	30
WB-456			82	59.6	35	13.9	33
LWW-04-4009			81	58.3	36	12.7	25
WB-Junction		89	81	59.7	36	12.7	30
WB-528	70	88	78	59.4	35	13.5	35
Simon	66	85	78	56.8	38	12.9	36
AP700CL			70	57.0	36	12.7	39
IDO663		82	70	55.3	35	13.6	29
WB-1070CL			68	60.3	34	14.8	36
Stephens			63	57.2	38	13.0	33
Trial Average	**71**	**90**	**89**	**58.3**	**37**	**12.3**	**30**
LSD (0.05)	**7**	**9**	**10**	**1.4**	**2**	**--**	**--**
CV (%)	**12**	**10**	**6**	**1.4**	**3**	**--**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

+ This location was affected by cephelosporium stripe. C-Club Wheat.

Table 4. Soft white winter wheat variety performance results at Tammany, 2011-2012.

Variety or Selection	Three-Year Yield bu/A	Two-Year Yield bu/A	2011-2012 Crop Year Trial Yield bu/A	Test Weight lb./bu	Plant Height inches	Seed Protien %	Hardness Score 0-100	Lodging Score %
Soft White*								
OR08047P94			**91**	57.5	41	9.8	20	0
Art Deco			**89**	60.0	39	10.3	24	0
WB-1070CL			**84**	62.3	41	11.0	26	2
WB-528	115	114	**84**	60.5	44	11.2	29	7
WB-523		116	**83**	61.1	45	10.8	21	5
ORCF-102	111	111	**83**	58.5	45	11.1	35	0
AP-Badger	110	103	82	57.1	41	10.0	24	13
ARS-Chrystal[C]			82	60.0	48	9.6	23	5
Mary		112	81	60.1	42	9.9	22	3
WB-Junction		113	80	60.6	44	10.6	21	7
Skiles	108		79	60.1	42	11.8	27	2
SY-Ovation			79	59.8	44	10.5	28	5
IDO663		110	78	59.7	45	10.7	30	3
UICF-Brundage	110	105	78	59.1	42	10.9	21	3
Bitterroot	109	108	77	60.4	47	10.6	22	3
Kaseberg			77	57.7	42	10.9	19	0
AP700CL			77	58.8	45	11.5	31	3
ARS-Crescent[C]			75	59.1	46	9.3	26	3
Simon	101	100	75	58.6	45	11.4	29	0
ID96-16702A		108	72	60.2	48	10.8	24	7
Bruneau	113	110	72	60.5	46	9.8	24	7
Cara[C]	112	113	70	59.1	44	10.9	29	0
Chukar[C]	106	109	68	58.3	45	10.1	27	2
WB-456			68	61.7	40	11.9	31	0
Madsen	108	108	68	59.3	45	12.3	32	0
Brundage-96	100	98	67	58.3	45	11.9	26	3
ARS-Amber			64	60.1	46	9.8	29	3
Stephens			64	58.2	46	10.8	28	0
LWW-04-4009			62	59.8	41	10.8	20	17
WB-1066CL		94	60	61.6	48	11.9	38	7
Trial Average	**109**	**108**	**76**	**59.6**	**44**	**10.7**	**26**	**0**
LSD (0.05)	**6**	**7**	**9**	**1.2**	**2**	**--**	**--**	**8**
CV (%)	**6**	**6**	**7**	**1.2**	**3**	**--**	**--**	**132**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

C - club wheat

Table 5. Soft white winter wheat variety performance results at Genesee, 2011-2012.

Variety or Selection	Three-Year Yield bu/A	Two-Year Yield bu/A	2011-2012 Crop Year Seed Yield bu/A	Test Weight lb/bu	Plant Height inches	Seed Protien %	Hardness Score 0-100
Soft White							
LWW-04-4009			**106**	60.7	41	12.1	25
Bitterroot	76	121	**102**	57.9	47	12.1	21
Bruneau		129	**101**	57.9	46	12.1	23
WB-528	70	124	**101**	60.6	44	12.8	27
Mary		127	**99**	59.6	42	12.9	25
OR08047P94			**99**	57.6	41	11.6	27
AP700CL			**98**	60.8	45	13.0	28
Art Deco			**97**	60.1	39	11.0	23
Skiles	71	119	**96**	59.4	42	12.7	22
Cara[C]	73	127	**95**	57.3	44	12.6	32
Kaseberg			**95**	58.7	42	12.1	23
Chukar[C]	72	123	**94**	56.0	45	12.7	31
AP-Badger	75	119	**93**	57.9	41	12.5	32
Brundage-96		122	**93**	59.7	45	12.3	24
Stephens			**93**	60.1	46	12.7	25
IDO663		120	**91**	59.9	45	12.5	26
UICF-Brundage	70	120	**91**	58.7	42	12.5	22
WB-523		117	90	61.2	45	12.8	23
SY-Ovation			89	62.4	44	12.7	28
WB-Junction		123	88	62.0	44	12.5	22
ARS-Crescent[C]			88	57.0	46	12.6	32
ID96-16702A		118	88	60.7	48	12.3	25
ARS-Amber			88	56.8	46	12.6	30
Madsen	68	114	87	57.8	45	13.0	28
ORCF-102	77	119	86	59.1	45	12.5	27
WB-1066CL		121	81	60.8	48	14.6	36
Simon	66	119	81	57.4	45	13.2	26
WB-456			80	61.7	40	14.1	29
ARS-Chrystal[C]			80	57.1	48	12.8	26
WB-1070CL			79	61.9	41	14.2	30
Trial Average	**72**	**121**	**91**	**59.5**	**44**	**12.7**	**26**
LSD (0.05)	**7**	**13**	**16**	**2.6**	**2**	**--**	**--**
CV (%)	**12**	**10**	**11**	**2.6**	**3**	**--**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

C - club wheat

Table 6. Soft white winter wheat variety performance results at Moscow, 2011-2012.

Variety or Selection	Three-Year Yield bu/A	Two-Year Yield bu/A	2011-2012+ Crop Year Seed Yield bu/A	Test Weight lb/bu	Plant Height inches	Seed Protien %	Hardness Score 0-100
Soft White*							
ARS-Crescent[C]			**121**	60.4	40	8.6	26
Kaseberg			**121**	59.3	37	9.1	17
Mary		112	**120**	60.5	38	9.4	19
Brundage-96	110	102	**117**	60.4	38	10.2	25
ORCF-102	111	103	**116**	60.5	40	9.8	31
WB-528	114	110	**116**	61.5	39	9.9	26
ID96-16702A		110	**114**	61.3	42	9.1	21
ARS-Amber			**111**	60.5	38	10.0	30
AP700CL			**108**	60.8	39	10.2	30
OR08047P94			**108**	57.1	36	9.5	19
WB-Junction		105	**108**	62.3	37	9.8	22
UICF-Brundage	113	105	**107**	59.5	37	9.4	18
Madsen	117	109	**106**	60.0	38	9.9	26
Art Deco			**105**	60.6	34	9.6	17
Chukar[C]	112	107	**104**	59.3	38	9.4	29
SY-Ovation			**104**	61.0	38	9.5	25
WB-1066CL		102	**102**	62.7	41	10.7	45
Bitterroot	113	107	100	60.1	40	9.2	17
Stephens			99	60.3	38	9.6	24
Simon	108	96	98	58.6	37	9.6	23
AP-Badger	103	97	98	58.4	35	8.9	21
LWW-04-4009			98	60.6	35	10.1	21
Cara[C]	108	101	96	58.7	35	9.4	26
WB-523		105	95	61.4	36	9.5	20
WB-1070CL			94	63.3	34	10.5	26
Bruneau	120	109	92	59.4	37	9.0	17
IDO663		95	90	60.4	36	9.9	25
WB-456			89	62.8	36	10.4	28
Skiles	107	97	85	60.9	34	9.9	24
ARS-Chrystal[C]			75	59.4	36	9.2	22
Trial Average	**111**	**104**	**103**	**60.4**	**37**	**9.6**	**24**
LSD (0.05)	**7**	**10**	**20**	**1.0**	**2**	**--**	**--**
CV (%)	**7**	**9**	**12**	**1.0**	**3**	**--**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

+ This location was affected by cephelosporium stripe. C-Club Wheat.

Table 7. Soft white winter wheat variety performance results at Tensed, 2011-2012

Variety or Selection	Two-Year Yield bu/A	2011-2012+ Crop Year Seed Yield bu/A	Test Weight lb/bu	Plant Height inches	Seed Protien %	Hardness Score 0-100
Soft White*						
ARS-Crescent[C]		**104**	57.1	39	10.3	21
Mary	**103**	**103**	59.6	37	10.6	15
Cara[C]	**124**	**102**	57.3	37	11.4	22
OR08047P94		**102**	56.6	35	10.5	18
Bitterroot	**112**	**100**	58.6	41	10.4	17
Bruneau	**120**	**97**	57.6	38	10.5	13
ORCF-102	**115**	**97**	59.5	39	11.4	27
Madsen	**119**	**93**	57.9	38	10.9	24
Kaseberg		**90**	57.8	35	10.1	17
ARS-Chrystal[C]		**90**	57.3	39	10.4	16
WB-456		**89**	61.0	35	12.5	30
Chukar[C]	**116**	**87**	56.7	39	10.6	18
WB-Junction	**112**	**86**	59.7	35	11.3	21
SY-Ovation		**86**	58.2	37	11.2	19
Brundage-96	**109**	**85**	57.3	35	10.6	20
UICF-Brundage	**110**	**85**	57.3	34	10.5	13
ID96-16702A	**113**	**85**	59.0	38	11.5	19
ARS-Amber		**84**	56.7	37	10.8	23
AP-Badger	**110**	82	56.2	33	11.0	24
LWW-04-4009		81	58.1	34	11.5	18
Skiles	109	80	58.3	34	11.1	19
Art Deco		79	57.3	33	10.6	12
Simon	101	74	56.7	36	11.2	19
IDO663	95	71	58.2	35	11.7	25
Stephens		68	57.4	37	11.5	21
WB-528	105	68	60.7	35	10.6	23
AP700CL		67	56.8	36	11.9	27
WB-523	101	65	59.6	37	10.5	18
WB-1066CL	89	53	59.4	36	13.4	30
WB-1070CL		52	60.6	31	12.4	22
Trial Average	**109**	**84**	**58.2**	**36**	**11.1**	**20**
LSD (0.05)	**21**	**21**	**1.8**	**2**	**--**	**--**
CV (%)	**18**	**15**	**1.9**	**4**	**--**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**
+ This location was affected by cephelosporium stripe. C - Club Wheat

Table 8. Soft white winter wheat variety performance results at Bonners Ferry, 2011-2012.

Variety or Selection	3-Year Yield bu/A	2-Year Yield bu/A	2011-2012+ Crop Year Seed Yield bu/A	Test Weight lb/bu	Plant Height inches	Seed Protien %	Hardness Score 0-100
Soft White							
ID96-16702A		109	**99**	57.9	37	10.6	16
WB-Junction		104	**92**	57.5	31	10.9	13
ARS-Chrystal[C]			**88**	54.1	36	12.0	14
AP700CL			80	55.7	35	11.5	15
ARS-Amber			80	55.3	31	11.8	26
Mary			76	56	31	11.4	12
LWW-04-4009			75	52.9	30	12.2	13
WB-528	105	98	75	56.4	33	11.8	17
Bitterroot	113	105	75	55.3	37	10.5	14
Bruneau	110	98	73	51.9	31	11.7	10
Art Deco			72	51.8	29	10.8	5
Madsen			72	53.6	33	11.7	18
Chukar[C]	100	92	71	45.5	35	13.1	18
Brundage-96	94	86	70	53.3	32	11.9	16
UICF-Brundage	94	89	68	52.6	32	12.1	11
ORCF-102	94	79	68	54.6	31	12.0	20
ARS-Crescent[C]			67	51.6	34	12.0	17
WB-456			65	55.9	29	12.7	20
AP-Badger	96	81	65	52.5	30	12.1	21
Cara[C]	107	97	64	47.6	33	13.5	19
WB-1066CL		87	64	56.8	30	12.8	20
Simon	100	82	63	47.3	35	11.8	12
Kaseberg			60	50.6	31	11.8	12
OR08047P94			59	47	28	12.0	12
SY-Ovation			58	54.4	33	11.6	13
Stephens			55	52.0	33	11.9	19
WB-523		87	55	50.4	33	13.1	13
Skiles	98	89	54	50.4	28	12.7	13
WB-1070CL			53	57.0	29	12.4	12
IDO663		72	43	48.5	28	13.1	18
Trial Average	**101**	**91**	**69**	**52.9**	**32**	**12.0**	**15**
LSD (0.05)	**10**	**9**	**12**	**3.8**	**9**	**--**	**--**
CV (%)	**13**	**10**	**10**	**4.4**	**17**	**--**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

+ This location affected by water-logged soils in June and July. C - Club Wheat

Table 9. Soft white winter wheat performance results across North Idaho, 2011-2012.

			2011-2012 Crop Year										
Variety or Selection	Three-Year Yield	Two-Year Yield	N. Idaho Average	Yield of "Stephens"	Nezperce	Tammany	Genesee	Moscow	Tensed	Bonners Ferry	Test Weight	Protein	Plant Height
	bu/A	bu/A	bu/A	%	----------bu/A----------						lb/bu	%	inches
Soft White													
Mary		106	**96**	**132**	95	81	99	120	103	76	59.1	11.0	38
OR08047P94			**94**	**133**	107	91	99	108	102	59	55.6	10.8	36
ARS-Crecent[C]			**94**	**131**	107	75	88	121	104	67	57.3	10.5	41
ID96-16702A		109	**93**	**120**	103	72	88	114	85	99	59.8	11.0	43
ORCF-102	98	104	**90**	**125**	91	83	86	116	97	68	58.5	11.5	40
Bitterroot	101	108	**90**	**124**	86	77	102	100	100	75	58.4	10.9	42
Kaseberg			**90**	**125**	96	77	95	121	90	60	57.0	10.8	37
Art Deco			**90**	**120**	96	89	97	105	79	72	57.8	10.7	35
WB-Junction		108	**89**	**116**	81	80	88	108	86	92	60.3	11.3	38
Cara[C]	100	109	88	124	99	70	95	96	102	64	56.2	11.6	39
ARS-Amber			87	118	96	64	88	111	84	80	57.9	11.2	31
Chukar[C]	97		87	118	98	68	94	104	87	71	55.6	11.2	41
WB-528	100	107	87	113	78	84	101	116	68	75	59.8	11.6	38
ARS-Chrystal[C]			87	115	107	82	80	75	90	88	57.8	10.9	42
AP-Badger	96	101	87	118	101	82	93	98	82	65	56.7	11.0	36
Bruneau	102	109	87	119	84	72	101	92	97	73	57.3	10.9	39
Brundage-96	94	101	86	117	85	67	93	117	85	70	57.7	11.5	38
SY-Ovation			86	119	100	79	89	104	86	58	59.2	11.3	39
Madsen	99	106	85	116	84	68	87	106	93	72	57.6	11.8	39
LWW-04-4009			84	112	81	62	106	98	81	75	58.4	11.6	36
AP700CL			83	107	70	77	98	108	67	80	58.3	11.8	39
Skiles	96	102	83	115	103	79	96	85	80	54	58.0	11.7	36
WB-523		103	81	109	98	83	90	95	65	55	58.9	11.5	39
WB-456			79	109	82	68	80	89	89	65	60.5	12.6	36
Simon	94	97	78	105	78	75	81	98	74	63	55.9	11.7	39
WB-1066CL		96	74	96	85	60	81	102	53	64	60.4	12.9	41
UICF-Brundage	96	103	74	100	87	78	91	107	85	68	57.5	11.3	32
IDO663			74	100	70	78	91	90	71	43	57.0	11.9	28
Stephens			74	100	63	64	93	99	68	55	57.5	11.6	40
WB-1070CL			72	94	68	84	79	94	52	53	60.9	12.6	35
Trial Average	**98**	**104**	**88**	**--**	**89**	**76**	**91**	**103**	**84**	**69**	**58.1**	**11.4**	**38**
LSD (0.05)	**4**	**4**	**7**	**--**	**10**	**9**	**16**	**20**	**21**	**12**	**0.8**	**--**	**1**
CV (%)	**10**	**10**	**--**	**--**	**6**	**7**	**11**	**12**	**15**	**10**	**--**	**--**	**--**
Site-Years	**17**	**12**	**6**	**6**	1	**1**	**1**	**1**	**1**	**1**	**6**	**6**	**6**

*** Varieties in bold were statistically equal to the top yielding variety in 2012. C- Club Wheat.**

Table 10. Hard winter wheat variety performance results at Nezperce, 2011-2012.

Variety or Selection	Three-Year Yield bu/A	Two-Year Yield bu/A	2011-2012+ Crop Year Seed Yield bu/A	Seed Protien %	Hardness Score 0-100	Test Weight lb/bu	Plant Height inches	Lodging %
Hard Wheat*								
UI-Silver (w)		88	**103**	12.0	78	62.7	41	41
Boundary	66	92	**102**	11.8	67	60.4	37	37
WB-Rimrock		97	**100**	12.5	81	62.2	38	38
UI-SRG	66	89	**95**	12.4	80	61.5	45	45
Eddy			93	12.6	69	63.1	34	34
IDO816			92	11.8	75	60.5	39	39
Altigo			88	12.4	69	58.0	33	33
Genesis			86	13.1	62	59.8	29	29
Norwest-553	61	77	81	12.9	66	60.1	34	34
Azimut			80	12.4	67	57.7	33	33
Esperia	55	75	78	14.1	67	60.2	33	33
UICF-Grace (w)		76	70	13.6	79	59.7	47	47
WB-Arrowhead			68	12.7	62	59.0	38	38
Trial Average	**62**	**85**	**87**	**12.6**	**71**	**60.4**	**37**	**37**
LSD (0.05)	**7**	**9**	**7**	**--**	**--**	**0.8**	**3**	**3**
CV (%)	**12**	**10**	**5**	**--**	**--**	**0.8**	**5**	**5**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

+ This location was affected by cephelosporium stripe.

Table 11. Hard winter wheat variety performance results at Tammany, 2011-2012.

			2011-2012++ Crop Year					
Variety or Selection	Three-Year Yield bu/A	Two-Year Yield bu/A	Seed Yield bu/A	Seed Protien %	Hardness Score 0-100	Test Weight lb/bu	Plant Height inches	Lodging %
Hard Wheat*								
Altigo			**78**	10.6	71	57.5	37	0
Azimut			**77**	11.2	67	56.4	36	0
Eddy			**75**	11.7	61	62.3	43	10
Norwest-553	108	110	**75**	11.3	72	61.7	39	0
WB-Arrowhead			**72**	12.1	63	60.2	46	13
Genesis			**67**	12.3	63	60.7	37	0
Esperia	97	96	**65**	12.1	61	60.6	38	0
UI-Silver (w)		90	61	12.4	78	58.6	48	53
UI-SRG	94	94	57	12.1	74	60.7	54	60
IDO816			56	11.5	70	59.8	45	43
Boundary	90	84	51	11.8	72	59.7	45	0
WB-Rimrock		82	51	10.9	58	55.9	42	0
UICF-Grace (w)		52	40	13.5	75	59.0	56	90
Trial Average	**97**	**87**	**64**	**11.8**	**68**	**59.5**	**44**	**21**
LSD (0.05)	**6**	**7**	**13**	**--**	**--**	**1.7**	**4**	**22**
CV (%)	**6**	**6**	**12**	**--**	**--**	**1.7**	**6**	**68**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

++ This location was affected by heavy hail prior to harvest.

Table 12. Hard winter wheat variety performance results at Genesee, 2011-2012.

Variety or Selection	Three-Year Yield bu/A	Two-Year Yield bu/A	2011-2012 Crop Year Seed Yield bu/A	Test Weight lb/bu	Plant Height inches	Seed Protien %	Hardness Score 0-100	Lodging %
Hard Wheat*								
Norwest-553	61	120	**100**	62.8	33	13.2	69	0
WB-Arrowhead			**97**	57.9	36	12.9	60	30
Azimut			**93**	58.0	35	12.8	67	0
Eddy			**93**	63.0	34	12.8	65	7
IDO816			92	59.0	38	13.4	70	30
Boundary	66	119	91	59.0	36	12.4	64	0
UI-Silver (w)		113	91	59.1	35	12.5	70	30
WB-Rimrock		125	89	62.2	36	12.9	78	6
Genesis			88	60.3	31	13.4	57	1
Altigo			86	58.6	33	13.0	62	0
UI-SRG	66	108	83	59.8	42	13.7	73	23
Esperia	55	108	74	61.6	29	13.7	68	0
UICF-Grace (w)		90	72	59.3	46	14.0	75	27
Trial Average	**62**	**89**	**89**	**60.0**	**36**	**13.1**	**68**	**12**
LSD (0.05)	**7**	**13**	**7**	**0.8**	**3**	**--**	**--**	**3**
CV (%)	**12**	**10**	**5**	**0.8**	**5**	**--**	**--**	**5**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 13. Hard winter wheat variety performance results at Moscow, 2011-2012.

Variety or Selection	Three-Year Yield bu/A	Two-Year Yield bu/A	2011-2012+ Crop Year Seed Yield bu/A	Test Weight lb/bu	Plant Height inches	Seed Protien %	Hardness Score 0-100	Lodging %
Hard Wheat*								
UI-Silver (w)		115	**121**	61.8	43	10.6	72	7
WB-Rimrock		95	**117**	62.4	40	10.5	68	0
UI-SRG	115	115	**114**	62.1	49	11.6	79	10
Boundary	106	100	**113**	60.7	40	11.0	62	0
IDO816			**110**	60.9	42	10.9	73	7
Genesis			**109**	60.9	37	11.3	61	0
Altigo			**109**	58.0	35	10.8	61	0
Eddy			**104**	64.0	38	11.6	69	0
Norwest-553	110	102	**103**	61.5	34	11.6	64	0
WB-Arrowhead			94	61.2	40	11.7	61	0
UICF-Grace (w)		91	93	61.0	52	11.5	77	50
Azimut			92	56.8	31	11.3	65	0
Esperia	82	78	78	62.9	33	12.0	62	0
Trial Average	**103**	**100**	**104**	**61.1**	**40**	**11.3**	**67**	**6**
LSD (0.05)	**7**	**10**	**19**	**1.3**	**4**	**--**	**--**	**22**
CV (%)	**7**	**9**	**11**	**1.3**	**6**	**--**	**--**	**68**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

+ This location was affected by cephelosporium stripe.

Table 14. Hard winter wheat variety performance results at Tensed, 2011-2012.

Variety or Selection	Two-Year Yield bu/A	2011-2012+ Crop Year Seed Yield bu/A	Test Weight lb/bu	Plant Height inches	Seed Protien %	Hardness Score 0-100
Hard Wheat*						
UI-Silver (w)	109	**103**	59.9	40	11.5	76
Boundary	109	**102**	59.4	38	11.7	67
WB-Rimrock		**100**	61.2	38	11.8	76
UI-SRG	115	**95**	60.2	46	12.1	79
Eddy		**93**	61.9	33	12.6	67
IDO816		**92**	60.2	42	12.0	78
Altigo		**88**	57.4	35	11.9	73
Genesis		**86**	57.1	31	13.0	61
Norwest-553	112	81	60.5	34	13.0	69
Azimut		80	56.3	32	12.3	72
Esperia	95	78	60.0	31	14.2	68
UICF-Grace (w)	84	70	56.1	49	14.3	76
WB-Arrowhead		68	61.2	41	12.2	68
Trial Average	**104**	**87**	**59.3**	**38**	**12.5**	**72**
LSD (0.05)	**21**	**10**	**1.4**	**2**	**--**	**--**
CV (%)	**18**	**6**	**1.4**	**3**	**--**	**--**

+ This location affected by Cephelosporum Stripe.

Table 15. Hard winter wheat variety performance results at Bonners Ferry, 2011-2012.

Variety or Selection	Three-Year Yield bu/A	Two-Year Yield bu/A	2011-2012++ Crop Year Seed Yield bu/A	Test Weight lb/bu	Plant Height inches	Seed Protien %	Hardness Score 0-100
Hard Wheat*							
UI-SRG	94	96	**78**	59.2	40	12.5	77
Altigo			**73**	53.7	27	11.8	61
Norwest-553	99	92	**70**	57.4	29	12.3	63
Eddy			**67**	63.1	31	12.3	66
UICF-Grace (w)		81	61	55.1	41	13.5	76
WB-Rimrock			61	57.2	32	12.3	69
Genesis			60	54.8	24	12.1	61
Azimut			58	52.8	27	12.6	57
UI-Silver (w)		79	57	56.2	31	13.0	79
IDO816			55	57.5	33	12.6	78
WB-Arrowhead			53	56.7	29	12.1	61
Esperia	71	64	47	56.8	24	13.3	55
Boundary	85	71	46	52.7	30	13.1	56
Trial Average	**87**	**81**	**60**	**56.4**	**31**	**12.6**	**66**
LSD (0.05)	**11**	**9**	**12**	**3.0**	**3**	**--**	**--**
CV (%)	**13**	**10**	**12**	**3.2**	**5**	**--**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

+ This location affected by prolonged water-logged soils in June and July.

Table 16. Hard winter wheat performance results across North Idaho, 2011-2012.

Variety or Selection	Three-Year Yield	Two-Year Yield	2011-2012 Crop Year: N. Idaho Yield	Yield of "Boundary"	Nezperce	Tammany	Genesee	Moscow	Tensed	Bonners Ferry	Test Weight	Protein	Plant Height
	----------bu/A----------			%	----------bu/A----------						lb/bu	%	inches
Hard Wheat													
UI-Silver (w)		99	**89**	**106**	103	61	91	121	103	57	59.7	12.0	40
Eddy			**88**	**104**	93	75	93	104	93	67	62.9	12.3	35
UI-SRG	92	103	**87**	**104**	95	57	83	114	95	78	60.6	12.4	46
Altigo			**87**	**103**	88	78	86	109	88	73	57.2	11.8	34
WB-Rimrock		97	**86**	**103**	100	51	89	117	100	61	60.2	11.8	38
Norwest-553	94	102	**85**	**101**	81	75	100	103	81	70	60.7	12.4	34
Boundary	88	96	**84**	**100**	102	51	91	113	102	46	58.7	12.0	38
IDO816			83	99	92	56	92	110	92	55	59.7	12.0	40
Genesis			83	98	86	67	88	109	86	60	58.9	12.5	32
Azimut			80	95	80	77	93	92	80	58	56.3	12.1	32
WB-Arrowhead			75	89	68	72	97	94	68	53	59.4	12.3	38
Esperia	78	86	70	83	78	65	74	78	78	47	60.4	13.2	31
UICF-Grace (w)		79	68	80	70	40	72	93	70	61	58.4	13.4	49
Trial Average	**88**	**95**	**82**	**--**	**87**	**64**	**89**	**104**	**87**	**60**	**59.5**	**12.3**	**37**
LSD (0.05)	**4**	**4**	**5**	**--**	**7**	**13**	**7**	**19**	**10**	**12**	**0.6**	**--**	**1**
CV (%)	**10**	**10**	**--**	**--**	**5**	**12**	**5**	**11**	**6**	**12**	**--**	**--**	**--**
Site-Years	**17**	**12**	**6**	**6**	1	**1**	**1**	**1**	**1**	**1**	**6**	**6**	**6**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Spring Wheat

Table 17. Soft white spring wheat variety performance results at Craigmont, 2012.

Variety or Selection*	Three-Year Yield bu/A	Two-Year Yield bu/A	2011-2012 Crop Year Seed Yield bu/A	Seed Protien %	Hardness Score 0-100	Test Weight lb/bu	Plant Height inches
Alturas	61	68	**71**	10.1	15	60.4	31
IDO852			**66**	9.9	13	60.7	32
Diva	67	73	**64**	9.4	21	61.9	30
UI-Stone	61	68	**64**	9.6	12	60.8	31
WB-1035CL2		57	**63**	11.4	27	61.0	33
JD	66	74	**63**	10.5	25	60.2	30
IDO668			**63**	9.9	8	60.1	33
IDO851			**62**	9.6	16	60.7	33
IDO687	61	65	**61**	10.1	18	60.5	33
IDO671	57	65	**60**	10.0	17	59.6	32
Nick	52	55	**60**	9.9	24	59.5	33
Whit	56	62	**59**	10.0	20	61.1	33
IDO686	60	66	58	10.2	18	60.1	32
Penawawa	50	54	57	10.5	22	60.6	30
IDO854			56	10.6	23	58.9	30
Babe	60	63	55	9.5	18	59.6	29
Trial Average	**59**	**64**	**61**	**10**	**19**	**60.3**	**32**
LSD (0.05)	**5**	**7**	**12**	**--**	**--**	**2.0**	**5**
CV (%)	**11**	**11**	**14**	**--**	**--**	**2.4**	**10**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**
C-Club Wheat.

Table 18. Soft white spring wheat variety performance results at Genesee, 2012.

Variety or Selection*	Three-Year Yield bu/A	Two-Year Yield bu/A	2011-2012 Crop Year Seed Yield bu/A	Seed Protien %	Hardness Score 0-100	Test Weight lb/bu	Plant Height inches
IDO854			**84**	11.7	28	62.1	36
IDO852			**83**	10.9	22	62.6	35
IDO687	97	78	**83**	11.0	26	63.6	35
Alturas	90	79	**81**	11.1	23	62.1	35
UI-Stone	88	74	**81**	10.8	18	62.5	36
IDO851			**80**	10.7	21	61.9	35
Diva	91	77	**79**	10.9	28	62.4	38
IDO668			**78**	11.5	17	61.7	35
Penawawa	91	72	75	10.9	24	62.8	35
IDO686	85	64	75	11.5	23	62.7	37
IDO671	92	73	75	10.6	23	62.1	35
Nick	86	71	74	11.7	26	62.6	35
JD	94	75	73	11.1	29	63.2	37
Whit	96	74	73	11.3	29	62.6	35
Babe	94	73	72	10.6	21	62.6	35
WB-1035CL2		67	70	12.5	27	62.4	34
Trial Average	**91**	**73**	**77**	**11.2**	**24**	**62.5**	**35**
LSD (0.05)	**8**	**8**	**7**	**--**	**--**	**0.6**	**1**
CV (%)	**11**	**10**	**6**	**--**	**--**	**0.5**	**2**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**
C-Club Wheat.

Table 19. Soft white spring wheat variety performance results at Bonners Ferry, 2012.

			2011-2012 Crop Year				
Variety or	Three-Year	Two-Year	Seed	Seed	Hardness	Test	Plant
Selection*	Yield	Yield	Yield	Protien	Score	Weight	Height
	bu/A	bu/A	bu/A	%	0-100	lb/bu	inches
IDO687	75	89	**101**	12.5	22	62.6	33
IDO671	77	83	**98**	12.2	23	61.3	31
Nick	73	71	**95**	13.4	28	61.6	32
Babe	76	70	93	13.3	25	62.2	34
IDO686	73	83	92	13.8	23	62.8	36
IDO851			91	11.9	20	61.2	31
Alturas	73	80	90	12.4	21	61.2	32
Penawawa	69	66	89	13.0	21	61.7	34
Diva	73	81	86	12.7	29	61.8	34
IDO852			86	12.1	21	61.5	31
Whit	71	78	85	14.2	29	61.4	35
WB-1035CL2			85	14.5	29	61.0	32
JD[C]	69	82	84	13.3	36	62.6	38
IDO668			83	13.0	17	61.5	31
IDO854			81	12.9	24	61.3	33
UI-Stone	69	70	81	12.0	22	60.8	31
Trial Average	**73**	**78**	**89**	**13.0**	**24**	**62**	**33**
LSD (0.05)	**11**	**10**	**7**	**--**	**--**	**0.4**	**1**
CV (%)	**18**	**13**	**6**	**--**	**--**	**0.4**	**3**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**
C-Club Wheat.

Table 20. Soft white spring wheat performance results across North Idaho, 2012.

			2011-2012 Crop Year							
Variety or Selection*	Three-Year Yield	Two-Year Yield	N. Idaho Average	Yield of "Penawawa"	Craigmont	Genesee	Bonners Ferry	Test Weight	Protein	Plant Height
	--------bu/A----------			%	------bu/A-------			lb/bu	%	inches
IDO687	78	77	**82**	**111**	61	83	101	62.2	11.2	34
Alturas	74	77	**81**	**109**	71	81	90	61.2	11.2	32
IDO852			**78**	**106**	66	83	86	61.6	11.0	33
IDO851			**78**	**105**	62	80	91	61.3	10.7	33
IDO671	74	75	**77**	**105**	60	75	98	61.0	10.9	33
Nick	67		76	104	60	74	95	61.3	11.7	33
Diva	77	77	76	104	64	79	86	62.0	11.0	34
UI-Stone	72	73	75	102	64	81	81	61.4	10.8	33
IDO686	73	70	75	102	58	75	92	61.8	11.8	35
IDO668		68	75	101	63	78	83	61.1	11.5	33
IDO854			74	100	56	84	81	60.8	11.7	33
Penawawa	67		74	100	57	75	89	61.7	11.5	33
Babe	74	73	73	100	55	72	93	61.5	11.1	33
JD[C]	78	76	73	100	63	73	84	62.0	11.6	35
WB-1035CL2		66	73	99	63	70	85	61.4	12.8	33
Whit	74	72	72	98	59	73	85	61.7	11.8	34
Trial Average	**74**	**73**	**76**	**--**	**61**	**77**	**89**	**61.0**	**11.5**	**32**
LSD (0.05)	**4**	**6**	**5**	**--**	**12**	**7**	**7**	**0.6**	**--**	**2**
CV (%)	**12**	**12**	**--**	**--**	**14**	**6**	**6**	**--**	**--**	**12**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**
C-Club Wheat.

Table 21. Hard spring wheat variety performance results at Craigmont, 2012.

Variety or Selection*	Three-Year Yield bu/A	Two-Year Yield bu/A	2011-2012 Crop Year Seed Yield bu/A	Seed Protien %	Hardness Score 0-100	Test Weight lb/bu	Plant Height inches
WB-Hartline (w)	66	71	**70**	12.0	62	60.1	33
Glee			**70**	12.0	66	59.9	33
WA8166			**69**	12.5	69	61.4	34
AP-Bullseye		61	**66**	12.0	80	62.7	29
WB-Fuzion	59	62	**66**	12.1	68	60.0	35
UI-Winchester	61	67	**64**	12.3	63	59.4	32
WB-Volt		63	**63**	12.5	79	62.1	33
97S0621-05			**62**	12.6	74	62.0	35
Jefferson	58	62	61	12.7	73	60.3	31
OR4201261 (w)	59	67	61	13.0	67	57.7	30
WB-Expresso		67	60	13.9	77	60.4	30
Buck-Pronto		68	59	14.0	70	59.4	31
Kelse	54	57	55	13.4	65	60.6	33
Lolo (w)	50	51	55	11.9	65	60.5	33
Cabernet	55	57	52	12.4	57	59.6	24
Albany		49	48	12.3	73	59.7	32
Trial Average	**58**	**62**	**61**	**12.6**	**69**	**60.3**	**32**
LSD (0.05)	**5**	**7**	**8**	**--**	**--**	**1.5**	**2**
CV (%)	**11**	**11**	**9**	**--**	**--**	**1.3**	**5**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**
(w) - hard white

Table 22. Hard spring wheat variety performance results at Genesee, 2012.

			2011-2012 Crop Year				
Variety or	Three-Year	Two-Year	Seed	Seed	Hardness	Test	Plant
Selection*	Yield	Yield	Yield	Protien	Score	Weight	Height
	bu/A	bu/A	bu/A	%	0-100	lb/bu	inches
WB-Hartline (w)	101	88	**91**	13.4	63	61.0	36
Lolo (w)	95	85	**91**	13.3	75	62.9	38
OR4201261 (w)	98	86	**89**	12.2	77	62.2	33
Glee			**83**	13.5	67	62.2	38
WA8166			**83**	13.4	72	62.6	38
Albany		81	**82**	13.1	78	62.0	36
UI-Winchester	91	80	**80**	13.4	62	61.7	36
WB-Volt	80	80	**80**	13.4	85	63.5	36
Jefferson	95	79	**79**	13.8	70	60.8	37
Kelse	87	78	78	14.4	72	62.0	40
Buck-Pronto		75	77	14.7	72	62.2	36
AP-Bullseye	78	78	76	13.3	78	63.3	33
WB-Expresso		73	74	13.7	79	62.2	32
Cabernet	83	68	71	13.3	63	62.4	29
WB-Fuzion	79	69	67	14.4	73	61.8	37
97S0621-05			66	14.5	75	62.4	36
Trial Average	**89**	**78**	**79**	**13.6**	**73**	**62.2**	**36**
LSD (0.05)	**8**	**8**	**12**	**--**	**--**	**0.8**	**1**
CV (%)	**11**	**10**	**10**	**--**	**--**	**0.9**	**3**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**
(w) - hard white

Table 23. Hard spring wheat variety performance results at Bonners Ferry, 2012.

			2011-2012 Crop Year				
Variety or	Three-Year	Two-Year	Seed	Seed	Hardness	Test	Plant
Selection*	Yield	Yield	Yield	Protien	Score	Weight	Height
	bu/A	bu/A	bu/A	%	0-100	lb/bu	inches
Albany			**97**	14.1	77	61.0	31
WB-Hartline (w)	72	78	**91**	14.1	59	60.0	32
Glee			87	14.1	75	61.4	30
WB-Fuzion	58	57	86	15.7	77	61.6	34
WB-Volt	85		85	13.3	84	61.5	32
Lolo (w)	59	56	81	14.2	78	62.1	34
WA8166			81	14.2	75	62.1	30
Jefferson	65	66	80	14.7	72	61.1	31
97S0621-05			78	15.6	79	62.2	33
WB-Expresso			78	15.4	87	60.7	29
OR4201261 (w)	70	76	78	12.9	73	60.3	31
UI-Winchester	65	64	77	14.3	70	61.3	29
Cabernet	57	61	77	14.4	60	60.6	26
AP-Bullseye	68		74	15.6	85	62.1	29
Kelse	63		72	15.7	71	60.9	34
Buck-Pronto			67	15.5	72	61.2	30
Trial Average	**66**	**65**	**80**	**14.6**	**75**	**61.2**	**31**
LSD (0.05)	**11**	**10**	**6**	**--**	**--**	**0.4**	**1**
CV (%)	**18**	**13**	**5**	**--**	**--**	**0.4**	**3**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**
(w) - hard white

Table 24. Hard spring wheat performance results across North Idaho, 2012.

			2011-2012 Crop Year							
Variety or Selection*	Three-Year Yield	Two-Year Yield	N. Idaho Average	Yield of "Cabernet"	Craigmont	Genesee	Bonners Ferry	Test Weight	Protein	Plant Height
	----------bu/A----------			%	----------bu/A----------			lb/bu	%	inches
WB-Hartline (w)	79	79	**84**	**127**	70	91	91	60.3	13.2	33
Glee			**80**	**120**	70	83	87	61.2	13.2	33
WA8166			77	117	69	83	81	62.0	13.4	34
OR4201261 (w)	75	77	76	114	61	89	78	60.1	12.7	31
WB-Volt		76	76	114	63	80	85	62.3	13.1	34
Albany		69	76	114	48	82	97	60.9	13.2	33
Lolo (w)	66	66	75	114	55	91	81	61.8	13.1	35
UI-Winchester	71	71	74	111	64	80	77	60.8	13.3	32
Jefferson	72	70	74	111	61	79	80	60.7	13.7	33
WB-Fuzion	64	63	73	110	66	67	86	61.1	14.1	35
AP-Bullseye		69	72	109	66	76	74	62.7	13.6	30
WB-Expresso		72	71	107	60	74	78	61.1	14.3	30
97S0621-05			69	104	62	66	78	62.2	14.2	34
Kelse	67	68	69	103	55	78	72	61.2	14.5	35
Buck-Pronto		70	68	102	59	77	67	60.9	14.7	32
Cabernet	64	62	66	100	52	71	77	60.9	13.4	26
Trial Average	**70**	**70**	**74**	**--**	**61**	**79**	**80**	**61.3**	**13.6**	**33**
LSD (0.05)	**4**	**6**	**5**	**--**	**8**	**12**	**6**	**0.9**	**--**	**2**
CV (%)	**12**	**12**	**--**	**--**	**9**	**10**	**5**	**--**	**--**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**
(w) - hard white

Table 25. Spring barley variety performance results at Craigmont, 2012.

Variety or Selection*	Three-Year Yield	Two-Year Yield	2011-2012 Crop Year Seed Yield	Test Weight lb/bu	Plant Height inches	Plumps %	Thins %
	----------bu/A----------						
08ID2661			**110**	54.3	31	80	5
LN09-0920			**108**	55.3	25	91	1
Merideth			**99**	53.4	30	94	2
Spaulding	94	103	**98**	56.5	30	92	1
AC-Metcalfe	86	98	**97**	55.8	33	92	2
Tetonia	87	97	**97**	54.4	30	86	2
Copeland		94	**96**	53.9	32	95	1
Xena			**96**	55.0	30	91	1
Champion	100	112	**95**	56.5	31	91	3
2Ab07-X031098-3			**95**	55.8	29	88	2
Aquila		101	**93**	54.3	37	90	2
Baronesse	83	95	**92**	54.8	29	92	1
Millenium			**91**	52.5	35	65	8
2Ab04-X01084-27			**91**	53.6	29	94	1
Lenetah	98	102	90	55.6	28	95	1
Camas	93	100	88	56.5	31	93	1
Clearwater	77	84	88	61.8	32	73	6
Tradition	81	85	84	54.1	37	85	2
Harrington	78	89	81	55.4	30	86	2
08ID1549			74	61.0	31	68	7
Trial Average	**88**		**93**	**55.5**	**31**	**87**	**3**
LSD (0.05)	**8**	**12**	**19**	**0.9**	**3**	**7**	**2**
CV (%)	**11**	**12**	**14**	**1.2**	**7**	**6**	**62**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 26. Spring barley variety performance results at Genesee, 2012.

Variety or Selection*	Three-Year Yield	Two-Year Yield	2011-2012 Crop Year Seed Yield	Test Weight	Plant Height	Plumps	Thins
	----------bu/A----------			lb/bu	inches	%	%
Tetonia	102	116	**105**	54.3	33	71	8
Champion	104	112	**95**	55.8	34	83	3
LN09-0920			**94**	55.0	27	83	5
Baronesse	99	104	**94**	54.4	32	75	6
Spaulding	99	107	92	55.7	32	77	6
Camas	98	104	92	55.1	35	86	4
2Ab07-X031098-3			91	55.0	35	79	6
Xena			91	54.5	31	83	4
08ID2661			90	54.8	31	76	5
Millenium			90	53.5	28	66	10
08ID1549			90	61.8	33	53	15
Harrington	87	94	90	54.8	35	62	11
2Ab04-X01084-27			89	52.1	32	67	11
Copeland		96	88	53.5	37	81	5
Merideth			88	54.2	33	84	5
AC-Metcalfe	95	98	87	54.7	33	79	8
Lenetah	96	100	87	55.1	31	84	4
Clearwater	81	90	83	61.4	33	49	13
Tradition	85	85	79	54.8	38	82	4
Aquila		90	76	55.5	34	82	4
Trial Average	**95**	**100**	**89**	**55.3**	**33**	**75**	**7**
LSD (0.05)	**7**	**10**	**11**	**0.8**	**2**	**8**	**3**
CV (%)	**9**	**10**	**9**	**1.0**	**5**	**8**	**37**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 27. Spring barley variety performance results at Moscow, 2012.

Variety or Selection*	Three-Year Yield	Two-Year Yield	2011-2012 Crop Year Seed Yield	Test Weight lb/bu	Plant Height inches	Plumps %	Thins %
	----------bu/A----------						
Spaulding	86	87	**106**	55.3	25	94	1
Champion	85	84	**103**	53.0	28	93	1
Xena			**103**	53.9	27	95	1
2Ab04-X01084-27			**102**	52.4	26	95	1
Baronesse	83	84	**101**	53.6	25	94	1
LN09-0920			**100**	53.7	25	95	1
Lenetah	80	78	**100**	54.4	26	95	1
Merideth			**99**	53.4	26	96	1
Camas	87	92	**99**	54.4	29	93	1
2Ab07-X031098-3			**98**	53.5	27	94	1
Harrington	83	85	**98**	54.6	26	89	2
08ID1549			**98**	63.0	28	82	4
Tetonia	84		96	54.1	28	93	1
Copeland		81	96	53.3	27	94	1
08ID2661			94	52.8	25	81	3
Aquila		81	93	53.5	31	94	1
AC-Metcalfe	77	78	90	53.9	26	95	1
Clearwater	69	67	88	61.2	29	81	4
Tradition	75	72	87	52.9	32	87	1
Millenium			81	51.6	29	75	5
Trial Average	**81**	**81**	**97**	**54.4**	**27**	**91**	**2**
LSD (0.05)	**7**	**10**	**8**	**1.7**	**2**	**2**	**1**
CV (%)	**10**	**12**	**6**	**1.3**	**6**	**2**	**28**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 28. Spring barley variety performance results at Bonners Ferry, 2012.

			2011-2012 Crop Year					
Variety or	Three-Year	Two-Year	Seed	Test	Plant	Plumps	Thins	Lodging
Selection*	Yield	Yield	Yield	Weight	Height			
	----------bu/A----------			lb/bu	inches	%	%	%
Spaulding	136	127	**134**	54.4	32	96	1	5
Camas	131	123	**132**	52.5	34	97	1	28
08ID2661			**129**	51.8	33	94	2	10
LN09-0920			**128**	52.2	26	96	1	0
Tetonia	136	124	**126**	53.5	32	97	1	20
Champion	128	124	**126**	54.2	33	98	0	23
Copeland		120	**125**	52.1	36	98	0	35
Lenetah	133	128	**125**	57.0	31	96	1	18
2Ab04-X01084-27			122	48.8	32	96	1	40
Baronesse	125	117	120	52.4	31	98	0	20
Xena			120	53.5	33	90	1	18
Millenium			119	50.5	35	88	3	0
2Ab07-X031098-3			119	52.9	34	96	1	18
Merideth			119	51.2	32	94	1	45
08ID1549			117	61.2	32	92	1	15
Harrington	121	114	114	52.5	33	87	4	65
AC-Metcalfe	123	111	114	53.4	34	95	2	33
Aquila		113	112	52.6	37	96	1	3
Tradition	117	102	104	52.2	37	97	0	43
Clearwater	75	54	95	60.1	33	86	3	50
Trial Average	**122**	**113**	**120**	**53.4**	**33**	**94**	**1**	**24**
LSD (0.05)	**8**	**11**	**11**	**3.2**	**1**	**4**	**1**	**17**
CV (%)	**7**	**9**	**7**	**4.3**	**3**	**6**	**62**	**50**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 29. Spring barley performance results across North Idaho, 2012.

			2011-2012 Crop Year									
Variety or Selection*	Three-Year Yield	Two-Year Yield	N. Idaho Average	Yield of "Baronesse"	Craigmont	Genesee	Moscow	Bonners Ferry	Test Weight	Plant Height	Plumps	Thins
	----------bu/A---------			%	---------bu/A---------				lb/bu	inches	%	%
Spaulding	103	106	**108**	**106**	98	92	106	134	55.5	30	90	2
LN09-0920			**107**	**106**	108	94	100	128	54.0	26	91	2
Tetonia	102	105	**106**	**104**	97	105	96	126	54.1	30	86	3
08ID2661			**106**	**104**	110	90	94	129	53.4	30	83	4
Champion	104	108	**105**	**103**	95	95	103	126	54.9	31	91	2
Camas	102	104	**103**	**101**	88	92	99	132	54.6	32	92	2
Xena			**102**	**101**	96	91	103	120	54.2	30	90	2
Baronesse	97	100	**102**	**100**	92	94	101	120	53.8	29	90	2
Copeland	93		101	100	96	88	96	125	53.2	33	92	2
Merideth			101	99	99	88	99	119	53.1	30	92	2
2Ab04-X01084-27			101	99	91	89	102	122	51.7	30	88	4
2Ab07-X031098-3			101	99	95	91	98	119	54.3	31	89	3
Lenetah	101	101	100	99	90	87	100	125	55.5	29	92	2
AC-Metcalfe	95	96	97	95	97	87	90	114	54.5	32	90	3
Harrington	91	95	96	94	81	90	98	114	54.3	31	81	4
Millenium			95	94	91	90	81	119	52.0	32	73	6
08ID1549			95	93	74	90	98	117	61.7	31	74	7
Aquila			93	92	93	76	93	112	53.9	35	91	2
Tradition	89	85	89	87	84	79	87	104	53.5	36	88	2
Clearwater	75	74	88	87	88	83	88	95	61.1	32	72	6
Trial Average	**96**	**97**	**100**	**--**	**93**	**89**	**97**	**120**	**54.7**	**31**	**87**	**3**
LSD (0.05)	**4**	**5**	**6**	**--**	**19**	**11**	**8**	**11**	**0.8**	**1**	**3**	**1**
CV (%)	**9**	**11**	**--**	**--**	**14**	**9**	**6**	**7**	**--**	**--**	**--**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 30. Spring pea variety performance results at Craigmont, 2012.

Variety or Selection*	Seed Yield lb/A	Seed Weight g/100	Canopy Height inches	Vine Length inches	Erect Index 0.1-1.0
Pro793	**2766**	25.6	26	27	1.0
Pro822	**2761**	23.2	26	28	0.9
PS07100470	**2753**	22.1	25	26	1.0
PS05100840	**2672**	20.1	25	25	1.0
Greenwood*	**2644**	19.7	24	25	1.0
Pacifica	**2582**	21.7	25	27	0.9
Pro091-7137	**2574**	19.0	24	25	1.0
Carousel	**2525**	22.8	26	27	1.0
Pro081-7116	**2521**	21.7	27	27	1.0
PS07100471	**2517**	20.7	25	26	1.0
PS03101445	**2456**	19.3	23	24	1.0
PS08101108	**2454**	21.4	23	23	1.0
Banner	**2441**	18.0	24	26	1.0
PS08101004	**2402**	21.3	23	24	1.0
PS07100925	**2393**	23.3	21	21	1.0
PS03101822	**2370**	22.2	22	24	0.9
Universal	2338	20.9	25	25	1.0
PS05100736	2335	22.3	21	21	1.0
PS05100735	2300	21.4	22	22	1.0
Aragorn	2151	20.8	23	24	1.0
Columbian	2123	17.5	18	41	0.4
Ariel	2043	17.2	22	22	1.0
Trial Average	**2460**	**21.0**	**24**	**25**	**1**
LSD (0.05)	**411**	**1.3**	**3**	**3**	**--**
CV (%)	**12**	**4.5**	**9**	**9**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 31. Spring pea variety performance results southeast of Genesee, 2012.

Variety or Selection*	Three-Year Yield lb/A	Two-Year Yield lb/A	Seed Yield lb/A	Seed Weight g/100	Canopy Height inches	Vine Length inches	Erect Index 0.1-1.0
PS08101004			**2563**	22.2	26	28	0.9
PS07100471		2433	**2556**	20.7	25	27	0.9
PS07100925			**2531**	23.6	23	25	0.9
PS03101445			**2504**	18.8	26	28	0.9
Pro091-7137			**2487**	19.2	26	29	0.9
Pacifica	2538	2446	**2423**	21.1	24	26	0.9
PS05100840		2171	**2313**	20.2	25	28	0.9
PS05100735			**2190**	21.4	22	23	1.0
Carousel	2259	2039	**2176**	22.8	25	26	1.0
Pro793			**2171**	24.8	23	26	0.9
Pro081-7116			**2134**	20.3	23	28	0.8
Greenwood*			**2132**	18.4	25	28	0.9
PS08101108			2096	23.4	22	23	0.9
PS07100470		2135	2034	21.3	24	26	1.0
Pro822			1893	23.1	23	26	0.9
PS05100736		1555	1892	20.6	21	24	0.9
Banner	2353	1958	1841	18.8	22	26	0.9
PS03101822		1953	1785	22.4	22	24	0.9
Columbian	1632	1676	1774	18.1	20	38	0.5
Ariel	2104	1646	1725	17.1	22	25	0.9
Universal	2360	2147	1701	20.2	23	26	0.9
Aragorn		1906	1511	19.9	23	26	0.9
Trial Average	**2208**	**2005**	**2111**	**20.8**	**23**	**27**	**1**
LSD (0.05)	**302**	**388**	**494**	**1.0**	**2**	**4**	**--**
CV (%)	**16**	**18**	**14**	**2.9**	**6**	**8**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 32. Spring pea variety performance results northwest of Genesee, 2012.

Variety or Selection*	Two-Year Yield	2011-2012 Crop Year Seed Yield	Seed Weight g/100	Canopy Height inches	Vine Length inches	Erect Index 0.1-1.0
	--------lb/A--------					
PS08101108		**3721**	24.8	22.7	29.3	0.8
PS07100925		**3711**	24.0	25.3	30.7	0.8
PS05100736	3496	**3679**	22.4	25.0	31.7	0.8
Pacifica	3866	**3546**	23.1	28.7	38.0	0.8
Pro793		**3539**	26.0	29.7	33.3	0.9
PS03101445	3868	**3522**	19.0	26.7	32.7	0.8
Pro091-7137		**3512**	21.1	23.7	35.7	0.7
Carousel	3431	**3506**	24.1	29.7	35.0	0.8
PS07100470	3418	**3500**	23.0	26.7	34.3	0.8
Banner	3853	**3493**	19.8	28.0	34.3	0.8
PS03101822	3638	**3482**	24.3	23.3	31.3	0.8
PS05100840	3685	**3447**	20.5	26.3	32.3	0.8
PS07100471	3350	**3443**	21.4	27.3	33.3	0.8
PS05100735		**3423**	22.5	24.3	27.7	0.9
Pro822		**3403**	24.2	28.0	33.0	0.8
PS08101004		**3300**	23.6	25.3	31.0	0.8
Universal	3677	**3269**	21.9	28.0	33.7	0.8
Pro081-7116	3263	**3263**	22.6	28.3	34.7	0.8
Greenwood*		**3254**	20.3	25.7	31.0	0.8
Ariel	3235	3054	18.6	26.3	29.7	0.9
Aragorn	3292	2924	21.6	23.3	30.3	0.8
Columbian	2838	2480	18.9	17.3	42.3	0.4
Trial Average	**3494**	**3385**	**22.2**	**26**	**33**	**1**
LSD (0.05)	**374**	**578**	**1.5**	**5.1**	**5.3**	**--**
CV (%)	**9**	**10**	**4.1**	**12.0**	**9.8**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 33. Spring pea variety performance results at Moscow, 2012.

Variety or Selection*	Seed Yield lb/A	Seed Weight g/100	Canopy Height inches	Vine Length inches	Erect Index 0.1-1.0
PS07100925	**3406**	23.1	27	31	0.9
Greenwood*	**3014**	17.9	29	33	0.9
PS05100736	2971	21.0	25	33	0.8
Pacifica	2961	20.3	32	39	0.8
Carousel	2922	21.4	29	34	0.9
PS07100471	2874	20.3	28	34	0.8
Pro793	2863	24.3	30	35	0.9
PS03101445	2857	18.2	27	33	0.8
PS05100735	2839	21.5	25	31	0.8
PS08101108	2828	21.6	23	26	0.9
PS08101004	2819	21.1	26	36	0.7
Ariel	2733	16.0	29	35	0.9
PS03101822	2719	21.3	24	29	0.8
Banner	2693	18.0	29	33	0.9
Pro822	2686	22.5	29	36	0.8
Pro091-7137	2678	17.3	27	32	0.9
PS05100840	2623	18.7	28	34	0.8
Aragorn	2560	19.6	28	34	0.8
PS07100470	2549	20.3	28	32	0.9
Universal	2508	19.1	27	31	0.8
Pro081-7116	2358	18.8	27	31	0.8
Columbian	2187	18.7	22	51	0.4
Trial Average	**2757**	**20.1**	**27**	**34**	**0.8**
LSD (0.05)	**400**	**0.9**	**3**	**9**	**--**
CV (%)	**9**	**2.6**	**6**	**5**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 34. Spring pea performance results across North Idaho, 2012.

Variety or Selection*	Three-Year Yield	Two-Year Yield	2011-2012 Crop Year: N. Idaho Average	Yield of "Columbian"	Craigmont	Genesee (southeast)	Genesee (northwest)	Moscow	Seed Weight	Canopy Height	Vine Length	Erect Index
									----------4-site Average----------			
	----------lb/A----------			%	----------lb/A----------				g/100	inches	inches	%
PS07100925			**3010**	141	2393	2531	3711	3406	23.5	24	27	0.9
Pacifica	2640	3031	**2878**	134	2582	2423	3546	2961	21.5	27	33	0.9
PS07100471		2839	**2848**	133	2517	2556	3443	2874	20.8	26	30	0.9
Pro793			**2835**	132	2766	2171	3539	2863	25.2	27	30	0.9
PS03101445		2934	**2835**	132	2456	2504	3522	2857	18.8	26	29	0.9
Pro091-7137			**2813**	131	2574	2487	3512	2678	19.1	25	30	0.8
Carousel	2466	2733	**2782**	130	2525	2176	3506	2922	22.8	28	31	0.9
PS08101108			2775	130	2454	2096	3721	2828	22.8	22	25	0.9
PS08101004			2771	129	2402	2563	3300	2819	22.0	25	30	0.9
PS05100840		2871	2764	129	2672	2313	3447	2623	19.9	26	30	0.9
Greenwood*			2761	129	2644	2132	3254	3014	19.1	26	29	0.9
PS05100736		2547	2719	127	2335	1892	3679	2971	21.6	23	27	0.9
PS07100470		2738	2709	127	2753	2034	3500	2549	21.7	26	29	0.9
PS05100735			2688	126	2300	2190	3423	2839	21.7	23	26	0.9
Pro822			2686	125	2761	1893	3403	2686	23.2	27	31	0.9
Banner	2514	2781	2617	122	2441	1841	3493	2693	18.7	26	30	0.9
PS03101822		2741	2589	121	2370	1785	3482	2719	22.6	23	27	0.9
Pro081-7116		2577	2569	120	2521	2134	3263	2358	20.9	26	30	0.9
Universal	2463	2790	2454	115	2338	1701	3269	2508	20.5	26	29	0.9
Ariel	2247	2447	2389	112	2043	1725	3054	2733	17.2	25	28	0.9
Aragorn	2309	2523	2286	107	2151	1511	2924	2560	20.5	24	29	0.9
Columbian	1878	2223	2141	100	2123	1774	2480	2187	18.3	19	43	0.5
Trial Average	**2359**	**2698**	**2678**	**125**	**2460**	**2111**	**3385**	**2757**	**21.0**	**25**	**30**	**0.9**
LSD (0.05)	**156**	**217**	**235**	**11**	**411**	**494**	**578**	**400**	**0.6**	**2**	**3**	**--**
CV (%)	**13**	**12**	**--**		**12**	**14**	**10**	**9**	**--**	**--**	**--**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 35. Spring lentil variety performance results at Craigmont, 2012.

Variety or Selection	Seed Yield lb/A	Seed Weight g/100	Canopy Height inches
Pardina	**1061**	3.9	13
Morena	**978**	4.1	14
LC08600113P	**929**	4.5	13
LC08600116P	**788**	4.6	14
Eston	**774**	5.2	15
Essex	**677**	3.7	13
LC01602273E	**661**	4.4	14
LC05600812E	**605**	4.5	15
LC08600005E	**593**	6.3	15
LC09600054E	**515**	6.0	15
Brewer	**503**	5.8	16
Merrit	**499**	6.1	17
Richlea	**494**	5.2	16
Avondale	435	4.2	15
Riveland	428	5.3	15
LC06601734L	425	6.9	17
LC07600376L	363	4.1	14
LC07600536L	358	4.5	14
Crimson	355	6.9	17
LC01602062T	314	4.3	14
LC05600043T	267	3.4	13
Trial Average	**572**	**4.9**	**15**
LSD (0.05)	**329**	**1.4**	**1**
CV (%)	**41**	**20.5**	**6**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 36. Spring lentil variety performance results southeast of Genesee, 2012.

Variety or Selection*	Three-Year Yield lb/A	Two-Year Yield lb/A	2011-2012 Crop Year Seed Yield lb/A	Seed Weight g/100	Canopy Height inches
Avondale		2487	**2209**	4.9	16
LC07600376L			**2101**	7.5	16
LC07600536L			**2028**	6.3	17
Riveland	1887	2169	1990	6.8	17
LC08600005E		2299	1982	4.5	16
LC08600113P		2182	1949	4.2	14
Morena		2257	1896	3.7	16
Richlea	1996	2254	1885	4.8	17
LC08600116P			1872	4.6	15
LC06601734L		2457	1847	6.6	16
LC01602273E		2191	1841	3.2	15
LC05600812E		2119	1814	3.9	15
LC09600054E			1785	4.2	15
Merrit	1899	2118	1776	6.1	15
LC05600043T			1743	4.4	14
LC01602062T		2161	1743	4.5	14
Pardina	1967	2095	1667	3.9	13
Essex		2318	1634	3.0	15
Eston	1751	2124	1597	3.3	15
Brewer	1835	2085	1590	5.2	15
Crimson		2056	1575	2.9	13
Trial Average	**1889**	**2211**	**1835**	**4.7**	**15**
LSD (0.05)	**154**	**168**	**256**	**0.4**	**1**
CV (%)	**9.92**	**7.53**	**8**	**4.6**	**4**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 37. Spring lentil variety performance results at northwest of Genesee, 2012.

Variety or Selection*	Two-Year Yield lb/A	2011-2012 Crop Year Seed Yield lb/A	Seed Weight g/100	Canopy Height inches
Morena	2571	**2361**	4.5	14
Essex	2655	**2181**	4.1	13
Merrit	2454	**2155**	6.1	13
Pardina	2494	**2152**	3.7	11
LC01602273E	2410	**2118**	3.6	13
LC05600043T		**2106**	5.5	14
LC08600113P	2313	2005	4.7	13
Riveland	2277	1997	7.7	14
Avondale		1974	4.5	15
LC08600116P		1930	5.7	13
Richlea	2327	1864	4.9	15
Crimson	2235	1766	3.0	12
LC01602062T	2271	1756	4.4	13
LC05600812E	2161	1753	4.9	13
Brewer	2232	1724	4.8	12
LC06601734L		1704	6.8	15
LC08600005E	2217	1618	4.6	15
Eston	2161	1599	3.1	14
LC07600376L		1432	6.9	14
LC09600054E		1419	4.2	13
LC07600536L		1268	7.0	15
Trial Average	**2341**	**1852**	**5.0**	**14**
LSD (0.05)	**183**	**317**	**1.1**	**2**
CV (%)	**8**	**10**	**13.9**	**7**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 38. Spring lentil variety performance results at Moscow, 2012.

Variety or Selection*	Three-Year Yield lb/A	Two-Year Yield lb/A	2011-2012 Crop Year Seed Yield lb/A	Seed Weight g/100	Canopy Height inches
LC01602273E		1894	**1902**	3.4	13
LC05600043T			**1890**	4.6	15
LC08600113P		1558	**1872**	4.6	13
Riveland	1302	1604	**1870**	6.7	16
Essex		1957	**1859**	3.8	16
LC05600812E		1672	**1837**	4.3	15
LC06601734L	1422	1745	**1802**	6.6	15
Avondale		1930	**1794**	4.8	15
Merrit	1486	1763	**1785**	6.4	14
Pardina	1655	1712	**1741**	3.8	14
LC08600116P			**1635**	5.0	15
Richlea	1238	1556	**1601**	4.6	15
Brewer	1376	1696	**1565**	5.6	14
LC08600005E		1548	**1520**	4.5	13
LC07600536L		1240	1362	5.9	16
Eston	1234	1390	1344	3.4	12
Crimson	1296	1426	1326	3.4	12
LC09600054E			1236	4.2	14
LC07600376L			1236	6.0	17
Morena	1744	1734	1178	3.8	17
LC01602062T		1171	1143	4.3	12
Trial Average	**1417**	**1623**	**1595**	**4.7**	**14**
LSD (0.05)	**252**	**297**	**490**	**0.5**	**2**
CV (%)	**22**	**18**	**19**	**6.1**	**9**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 39. Spring lentil performance results across North Idaho, 2012.

			2011-2012 Crop Year							
Variety or Selection*	Three-Year Yield	Two-Year Yield	N. Idaho Average	Yield of "Pardina"	Craigmont	Genesee (southeast)	Genesee (northwest)	Moscow	Seed Weight	Canopy Height
	----------lb/A----------			%	----------lb/A----------				g/100	inches
Pardina	1872	1942	**1655**	100	1061	1667	2152	1741	3.8	13
LC08600113P		1834	**1653**	100	788	1949	2005	1872	4.5	13
LC01602273E		1946	**1634**	99	677	1841	2118	1902	3.5	13
LC05600043T			**1628**	98	774	1743	2106	1890	4.9	14
Avondale		2047	**1618**	98	494	2209	1974	1794	4.8	15
Morena		2005	**1603**	97	978	1896	2361	1178	4.0	15
Riveland	1621	1796	**1590**	96	503	1990	1997	1870	6.8	16
Merrit	1735	1889	**1577**	95	593	1776	2155	1785	6.2	14
Essex		2061	**1570**	95	605	1634	2181	1859	3.8	15
LC05600812E		1789	**1516**	92	661	1814	1753	1837	4.4	14
Richlea	1649	1822	1466	89	515	1885	1864	1601	5.1	15
LC08600116P			1449	88	358	1872	1930	1635	4.9	14
LC06601734L		2087	1445	87	425	1847	1704	1802	6.7	16
LC01602062T		1725	1393	84	929	1743	1756	1143	4.4	13
LC08600005E		1790	1389	84	435	1982	1618	1520	4.4	15
Brewer	1611	1776	1327	80	428	1590	1724	1565	5.2	14
LC07600536L		1221	1289	78	499	2028	1268	1362	6.3	16
LC07600376L		1389	1281	77	355	2101	1432	1236	6.8	16
Crimson		1669	1233	75	267	1575	1766	1326	3.2	13
Eston	1519	1677	1226	74	363	1597	1599	1344	3.5	14
LC09600054E			1188	72	314	1785	1419	1236	4.2	14
Trial Average	**1668**	**1804**	**1463**	**101**	**572**	**1835**	**1852**	**1595**	**1.7**	**5**
LSD (0.05)	**103**	**182**	**174**	**12**	**329**	**256**	**317**	**490**	**3.3**	**3**
CV (%)	**7**	**7**	**--**	**--**	**41**	**8**	**10**	**19**	**--**	**--**

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Table 40. Spring Chickpea variety performance results in Latah County, 2010-2012.

Variety or Selection	Three-Year Yield lb/A	Two-Year Yield lb/A	2011-2012 Crop Year Seed Yield lb/A	Seed Weight g/100	Canopy Height inches
CA04900843C		3754	**3449**	61.6	19
CA0690B0250C			**3288**	54.2	21
CA04900421C			**3227**	51.2	18
CA0690B0427C			**3199**	51.7	21
CA0390B007C		3427	**3192**	52.5	18
CA0790B0042C			**3168**	39.9	19
CA0469C025C	2703	3365	3056	52.1	19
CDC-Orion		3565	3033	45.9	16
CA0790B0043C			3009	56.5	20
Sawyer	2668	3394	2907	44.8	20
BillyBeans		3297	2876	30.7	19
Sierra	2314	2860	2803	53.6	18
Dwelley	2320	2907	2551	52.9	18
CDC-Frontier		2973	2519	37.6	16
CDC-Alma		2963	2466	37.4	14
Dylan	2160	2705	2243	60.4	17
Trial Average	2433	3201	**2936**	**48.9**	**18**
LSD (0.05)	189	311	**339**	**2.5**	**3**
CV (%)	9	10	**8**	**3.6**	**7**
Site Years	**3**	**2**	**1**	**1**	**1**

*** Varieties in bold were statistically equal to the top yielding variety.**

Winter Peas

Table 41. Winter Pea performance results at Moscow, 2012

Variety or Selection*	Yield lbs/A	Vine Length inches	Canopy Height inches	Erect Index
PS07300047W	**4237**	61	37	0.6
Specter	**4036**	58	32	0.6
PS03101269W	**3991**	61	32	0.5
Pro072-6034	**3972**	37	28	0.8
PS05300180W	**3883**	47	38	0.8
Windham	**3563**	42	28	0.7
Whistler	3249	43	28	0.6
Pro054-7256	2973	42	33	0.8
PS07300150W	2829	57	40	0.7
Average	3637	50	33	0.7
LSD (0.5)	739	9	3	--
CV (%)	11	10	6	--

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**

Winter Barley

Table 42. Winter Barley variety performance results at Bonners Ferry, 2011-2012.

Variety or Selection*	Yield bu/A	Test Weight lb./bu	Height Inches
OR816	**115**	48.8	27
Sprinter	**103**	47.7	27
Strider	**103**	48.0	26
OR81	**100**	48.3	26
OR77	**95**	47.5	31
Charles	**81**	48.6	28
Sunstar Pride	**79**	49.5	25
OR818	**77**	45.5	24
Endeavor	**76**	47.9	32
OR91	63	48.3	26
OR76	61	43.0	25
OR85	53	44.2	23
Average	84	47.3	--
LSD (0.05)	47	4.3	3
CV (%)	38	6.2	9

*** Varieties in bold were statistically equal to the top yielding variety in 2012.**