University of Idaho Extension

Farm Scene

Nez Perce County, 1239 Idaho Street, Lewiston, Idaho Fall 2008

The 2008 harvest is mostly complete as growers reap the remaining crops at higher elevations.

The growing season was dry—culminating in six consecutive years of below average rainfall and lowering range, pasture, and crop yields by 35%. For this reason, the Farm Service Agency in Nez Perce County requested county drought designation, which was approved by the county commissioners and forwarded on to the governor's office for approval then to the Secretary of Agriculture for final approval.

In spite of the drought, a significant amount of snowfall was received at mid to high elevations. However, the powdery snow blew into drifts in fields resulting in uneven moisture distribution, which was evidenced in the premature ripening of crops in low moisture areas within the fields.

Spring weather was dry and unusual as flood warnings were issued for the Clearwater River and its tributaries while mid and low elevations suffered from drought conditions.

Crop prices were elevated after harvest last year with winter wheat transcending the $20 per bushel mark on paper. Noteworthy: most growers were not positioned to capture these prices, instead, indications are that 50% of growers sold wheat for less than $5.50 per bushel, 30% sold for less than $7.50 per bushel, and 20% sold for more than $7.50 per bushel.

Production prices continue to ascend, although fluctuating somewhat, on a daily basis. Fertilizer costs, for example, have risen to $1 per pound for nitrogen and overall fertilizer costs have moved up to $150 to $170 per acre.

Farming enterprise remains a very competitive venture and growers continue to sharpen their pencils and computer skills to become better managers in order to remain viable.

Cereal Variety Selection for a specific elevation and rainfall level remains a primary asset of successful crop production. As a result, the cereal variety yield trial results in this newsletter will be of value. While reviewing the data, keep in mind that moisture was a limiting yield factor at all locations with cropping systems and rotations also affecting residual moisture and yield at test locations as follows:

- University of Idaho Winter Wheat Trials, S. Guy, & D. Finkelnberg
  - Lewiston, Tammany location was on a summer fallow rotation
  - Genesee, Rimrock was a re-crop rotation
- UI/Nez Perce County Extension Hard Red Winter Wheat at 3 Locations: Lewiston, Tammany, Gifford
  - All were planted on a re-crop rotation
- WSU Extension Soft White Winter Wheat at Anatone
  - Planted on a summer fallow rotation

In this issue:

Good luck with the remainder of harvest and all the best for the coming crop year!!

Best regards,

Larry J. Smith
Extension Educator

The following UI crop production publications can be found in pdf format online at Resources for Idaho (http://info.ag.uidaho.edu/) click on Catalog, CALS Publishing Catalog, New Releases in 2008,

2007 North-Central Idaho Crop Management Trials
2008 RES 171

2007 Small Grain and Grain Legume Report: Northern Idaho Small Grain and Grain Legume Research and Extension Program
2008 RES 170
Also available at:
http://www.ag.uidaho.edu/cereals/nidaho

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Developing Soft White Winter Wheat Cultivars for Idaho & the Pacific Northwest

The primary objective of the soft white winter wheat breeding program, directed by Dr. Robert Zemetra, is to develop cultivars with improved yield and other agronomic traits, improved end-use quality, increased biotic and abiotic stress resistance/tolerance using an integrated research approach. The program has increased its emphasis on improving disease resistance and winter-hardiness in winter wheat.

Bitterroot (ID92-22407A)
Bitterroot is the most recent release from the University of Idaho. It is a soft white winter wheat with good stripe rust resistance, excellent Cephalosporium stripe tolerance, good to excellent yield potential and superior end-use quality. Bitterroot, like Simon, shows a low level of physiological leaf spot copared to other soft white winter wheat cultivars. The Pacific Northwest Wheat Quality Council found it to have good end-use quality. Registered seed of Bitterroot should be available in fall 2008.

Brundage 96 (ID-B-96)
A Brundage re-selection from the Idaho Moscow program of Bob Zemetra. It has a moderate level of stripe rust resistance that allows it to be grown in Northern Idaho/Eastern Washington without the need for chemical control except in years that are highly conducive to stripe rust. Like Brundage it is also an awnless, short semi-dwarf with superior end use quality. It has good winter hardiness and matures similar to Stephens. Brundage 96 is rated as having the best end-use quality among soft white winter wheat cultivars grown in the Pacific Northwest.

Simon (ID034302A)
A 2003 UI release from Bob Zemetra. Simon is a replacement for Madsen that is earlier maturing. The first UI release with Pseudocercosporella foot rot resistance, Simon has good Cephalosporium stripe and Stripe rust resistance. Simon has high yield potential, good agronomic characteristics and good end-use quality in areas of moderate to high rainfall or under irrigation. Simon will show less physiological leaf spot compared to Madsen under similar environmental conditions. It is taller than Stephens but has good straw strength and lodging resistance. Test weight is better than Stephens. Simon has been evaluated in the Pacific Northwest Wheat Quality Collaborative trial and was found to have the desired quality for several end-uses.

New Public Release of Winter Wheat Varieties Available This Fall

ORCF-103 is an IMI tolerant Eltan cross that has a better tolerance for cold and snow than the mild tolerance of ORCF-101 and ORCF-102. ORCF-103 has good ceph stripe tolerance and has better yield potential than Eltan in North Central Washington. ORCF-103 has a straw strength similar to Eltan.

Norwest 553 is a hard red winter wheat with high yield potential, short and stiff strawed and with good protein and test weight. It shows some tolerance to Cercosporella foot rot and good resistance to stripe rust. It also shows winter hardiness better than that of Stephens.

Skiles (ORH 10085) is a Dusty cross with Hybritech germplasm (Croatia). Skiles has shown to be superior in test weight and has a heading date and height similar to that of Stephens. It has smaller heads, but high spikelet count and test weight. It has a similar cold tolerance to that of Eltan. Skiles shows good tolerance to ceph stripe and has been found to be susceptible to C. foot rot.

Goetze is a French line X Oregon experimental line. It has short, strong straws and excellent stripe rust resistance. It has been found to show intermediate response to C. foot rot and is moderately susceptible to ceph stripe. Goetze has less cold tolerance than Stephens.

Cara (ARS97135-9) is a soft white winter wheat with awnless spikes and white chaff. It has competitive yielding ability, excellent resistance to stripe rust, powdery mildew, common bunt and strawbreaker foot rot and excellent club grain end-use. Cara is suited to replace the remaining acreage of Rely and Hiller.

Xerpha (WA 7973) is a semi dwarf, soft white wheat with mid season maturity, common head type, awns, white straw and white glumes. Cold tolerance tests show that it is slightly more cold tolerant than Tubbs and Madsen and slightly less than Eltan. It is durable in high temperature, adult plant resistance to stripe rust and has a broad range of adaptation from deep furrow seeding with dry conditions to intermediate and high precipitation zones.

Idaho Wheat Commission
Hard Red Winter Wheat Variety Comparison
Seed Yield for Three Locations
2007-08

Cooperators: Gene & Blaine Butler, Butler Farm, Gifford, Idaho—20 inch rainfall
Art & Doug McIntosh, TriMax Associates—McIntosh Farms, Lewiston, Idaho
1. Lapwai area—12 inch rainfall
2. Tammany area—10 inch rainfall

with: Larry J. Smith, UI/Nez Perce County Extension
Bob Brown, UI/Nez Perce County Extension Tech Support

Idaho Wheat Commission
Washington Crop Improvement Association
Primeland Cooperatives, Lewiston, Idaho
Pacific Northwest Cooperative, Genesee, Idaho

		Gifford	Lapwai	Tammany	Average
		bu/acre	bu/acre	bu/acre	bu/acre
Boundary	(hard red winter wheat)	47	42	30	40
Paladin	(hard red winter wheat)	43	38	33	38
Bauermeister	(hard red winter wheat)	47	34	28	36
Eddy	(hard red winter wheat)	40	26	33	33
Declo	(hard red winter wheat)	37	33	23	31
DW (IDO 513)*	(hard red winter wheat)	33	36	23	31
	Average	41	35	28	35

Seed yield at these locations (recrop ground) impacted by severe drought.
Test bushel weight and percent protein currently under evaluation by Lewiston Grain Inspection Service.

University of Idaho Crop Management Trials -- Stephen Guy and Doug Finkelnburg

Winter wheat variety performance results at Genesee, 2007-2008.

Variety or Selection	Seed Yield	Test Weight	Plant Height
	bu/acre	lb/bu	inches
Soft White			
Xerpha	60	58.4	32
ID 93-64901A	59	58.6	31
Bitterroot*	59	59.2	32
WestBred 528	57	61.1	32
Goetze	56	58.1	29
IDO 587	56	58.0	31
IDO 655	55	60.3	34
ORCF-102	55	58.7	31
Simon	54	57.9	31
Brundage 96	53	54.0	30
ID 00-475-20H	53	58.7	31
Tubbs 06	53	56.4	33
ORCF-101	52	57.6	32
ID 02-859	52	56.7	29
ID 99-435	50	58.5	34
Concept	49	57.6	27
Mohler	48	56.9	32
Lambert	46	57.5	33
Stephens	46	57.3	31
Madsen	41	56.7	29
Average	53	57.9	31
Hard Wheat			
MDM (HW)	60	59.3	31
Bauermeister (HR)	58	58.3	31
IDO 621 (HR)	55	60.4	29
Boundary (HR)	52	59.7	30
Paladin (HR)	49	62.3	30
Average	55	60.0	30
Club			
ORN-553	63	62.5	30
Cara	50	57.1	27
Coda	48	59.6	31
Chukar	47	57.3	27
Rohde	45	59.5	28
Average	51	59.2	28
Overall Average	53	58.6	30
LSD (0.10)	8	1.4	3
CV (%)	11	3.3	3

Winter wheat variety performance results at Lewiston, 2007-2008.

Variety or Selection	Seed Yield	Test Weight	Plant Height
	bu/acre	lb/bu	inches
Soft White			
Xerpha	102	55.8	44
WestBred 528	97	59.0	40
ID 99-435	95	55.7	46
Lambert	95	56.2	45
Simon	94	56.4	42
Goetze	93	54.2	38
Tubbs 06	93	54.5	44
ID 93-64901A	92	56.8	44
ORCF-102	92	57.2	44
Mohler	90	55.5	42
ID 02-859	90	54.6	39
ORCF-101	88	55.4	40
Stephens	86	54.1	39
IDO 655	85	57.6	46
Brundage 96	85	55.7	40
IDO 587	83	54.3	40
Bitterroot*	81	57.2	43
Madsen	79	54.2	41
ID 00-475-20H	75	55.9	43
Concept	68	54.1	39
Average	88	55.7	42
Hard Wheat			
IDO 621 (HR)	99	58.8	40
Boundary (HR)	90	57.9	40
Paladin (HR)	86	59.9	40
Bauermeister (HR)	71	54.2	45
MDM (HW)	67	54.1	42
Average	83	57	41
Club			
ORN-553	97	60.1	36
Chukar	91	54.2	41
Cara	91	53.4	40
Rohde	90	58.7	42
Coda	77	54.7	41
Average	89	56	40
Overall Average	87	56	41
LSD (0.10)	9	1.4	2
CV (%)	7	1.8	3

*Bitterroot previously known as ID 92-22407A

2007 North-Central Idaho Crop Management Trials Summarizes field agronomic performance evaluations conducted in northern Idaho during 2007, including a demonstration trial of safflower yield, an herbicide response study with Clearfield wheat, an agronomic and cultivar evaluation for camelina, a study on the effects of seed treatments on grain-legume performance, a study of winter and spring wheat seed treatments, an evaluation of winter wheat varieties in strip-trials, a study of rapeseed meal pre-application and seed treatment of pea crops, and an evaluation of nitrogen application methods in winter wheat to reduce nitrogen runoff potential and improve use efficiency. 38 pp. 2008 RES 171

North Idaho Extension Cereals Program -- http://www.ag.uidaho.edu/cereals/nidaho

Northern Idaho Small Grain and Grain Legume Research and Extension Program

Stephen Guy and Doug Finkelnburg

Grain yield averages for winter wheat varieties tested for three years in northern Idaho.

Variety or Selection	2004-2005	2005-2006	2006-2007	Average
Number of Sites	5	5	5	15
	----------bu/acre----------			
Soft White				
Brundage 96	104	82	73	86
Concept	100	83	68	84
Hubbard	92	86	70	83
IDO 587	99	80	64	81
Lambert	106	82	68	85
Madsen	98	82	69	83
Masami	93	85	68	82
Mohler	107	89	74	90
ORCF-101	100	83	68	84
ORCF-102	103	91	68	87
Simon	101	84	69	85
Stephens	104	82	67	84
WestBred 528	109	86	73	89
Average	101	84	69	85
Hard Red				
Boundary	85	81	70	79
Average	85	81	70	79
Club				
Chukar	99	84	65	83
Coda	92	80	65	79
Rohde	99	80	72	84
Average	97	81	67	82
Overall Average	99	84	69	84
LSD (0.10)	4	3	4	--

2007 Small Grain and Grain Legume Report: Northern Idaho Small Grain and Grain Legume Research and Extension Program

Presents the results of variety performance trials conducted during the 2006-07 season at sites from Craigmont to Bonners Ferry. Varieties of winter wheat, spring wheat, spring barley, and spring legumes (green and yellow dry peas, lentils, and chickpeas) were tested. 53 pp. 2008 RES 170

North Idaho Extension Cereals Program – http://www.ag.uidaho.edu/cereals/nidaho

The publication can also be found in pdf format online at Resources for Idaho (http://info.ag.uidaho.edu/) click on Catalog, CALS Publishing Catalog, New Releases in 2008, 2007 Small Grain and Grain Legume Report: Northern Idaho Small Grain and Grain Legume Research and Extension Program

2008 WSU Extension Soft White Winter Wheat Nursery at Anatone, Washington

Variety Name *Club Italized	5 YEAR AVERAGE (BU/A)	3 YEAR AVERAGE (BU/A)	2 YEAR AVERAGE (BU/A)	2008 (BU/A)
XERPHA		88.1	84.2	89.0
ID02-859			75.0	84.7
ORF2267-03				82.0
GEORGE	90.5	79.9	72.4	81.5
ELTAN	90.0	80.9	75.9	79.8
MADSEN	86.1	78.0	71.7	79.1
BZ6WM04-1066				77.4
LAMBERT	79.3	75.9	69.3	75.1
ELTAN/MADSEN			72.4	73.5
WB 1020M		77.8	70.3	72.7
ARS970075-3				72.3
BRUEHL	85.5	72.7	66.9	72.2
ORCF-102		83.4	74.1	71.8
ROD	92.9	82.2	76.5	71.7
ARS970168-2C				71.7
BRUNDAGE 96	82.7	71.3	66.4	71.5
ELTAN/TUBBS06				71.2
FINCH	86.7	75.5	69.9	71.1
WB 523		78.3	70.3	70.5
ARS960277L				70.5
BITTERROOT		77.2	67.7	70.1
WB 456		75.4	70.2	69.7
ROD/TUBBS06				69.4
CODA	87.9	80.6	72.6	69.0
CASHUP	84.9	71.0	63.9	68.2
WA008065				67.6
MJ-9	91.6	79.3	70.8	66.8
WA008064				66.7
CHUKAR	83.9	67.8	63.6	66.3
MADSEN/ROD		75.2	63.9	65.9
ARS970278-2			58.9	65.9
SKILES				65.7
ORCF-103			66.8	64.9
SALUTE			69.1	64.8
STEPHENS	79.8	71.1	65.4	64.6
TUBBS 06		70.5	63.4	64.3
WA008063				64.3
AP 700 CL			67.6	63.8
WA008066				63.4
9364901A			65.0	62.7
RJAMES	88.2	76.7	67.0	62.3
WB-528	85.4	72.8	61.3	61.5
LEGION				61.5
SIMON	77.4	74.6	63.5	61.4
CARA	77.0	63.4	62.5	61.3
MASAMI	91.2	72.5	66.9	59.6
ID990435		73.9	66.0	58.8
ORCF-101	83.7	72.9	64.4	56.6
OR2050910				38.0
C.V. %	9.9	10.7	11.4	11.5
LSD '@ .10'	4.2	5.3	6.4	9.2
Average	85.5	75.7	68.4	68.4
Highest	92.9	88.1	84.2	89.0
Lowest	77.0	63.4	58.9	38.0

ANATONE SOFT WHITE WINTER WHEAT
2008 WSU VARIETY TESTING DATA

1. 2008 Soft White Winter Wheat **YIELD DATA** from the WSU Variety Testing nursery at the Anatone location averaged 68.4 bu/ac; that is about 20.1% below the historical 3-yr yield averages at this location.

2. This nursery was **seeded** on 25 September 2007 on summer fallow ground using a double disc plot drill (6-in opener spacing) at a seeding rate of 85# per acre. The base fertilizer rate was 80#N and 12#S.

3. Wheat quality in terms of **Test Weight** averaged 56.4 lbs/bu

4. **Percent grain protein** had an average of 12.2%.

Note: The Anatone nursery was located about 8 miles north of Anatone, WA (J. Johnson farm).

Complete results from the Anatone site and from other WSU Uniform Cereal Variety Testing Program sites can be found at http://variety.wsu.edu/2008/index.htm