



2023 PACIFIC NORTHWEST CROP QUALITY REPORT

WEEK 8 FINAL: September 14, 2023

This is the final weekly report for the 2023 Pacific northwest wheat harvest survey. Our thanks go to the Federal Grain Inspection Service Portland Field Office for prompt grading and protein analysis, the PNW wheat growers, PNW states, and private grain inspection organizations for their generous cooperation in the sample collection. Special thanks go to Idaho Wheat Commission, Oregon Wheat Commission, and Washington Grain Commission for funding this project.

562 wheat samples were received and tested this year – 385 soft white (SWH), 65 white club (WHCB), 73 hard red winter (HRW), 36 hard red spring (HRS), and 3 hard white (HDWH). The results were as follows:

USDA ECONOMIC STATISTICS DISTRICTS (TABLE 1) DATA –

SWH – Average **test weight** was 60.2 lb/bu (79.2 kg/hl), lower than the 61.0 lb/bu reported last year and the 5-year average of 61.1 lb/bu. Average **dockage** was 0.4%. Average **wheat moisture** content was 9.1%. Average **wheat protein** content (12% mb) was 11.0%, higher than the 9.5% reported last year and the 5-year average of 10.0%. Average **falling number** value (14% mb) was 334 seconds, lower than the 340 seconds reported last year but higher than the 5-year average of 326 seconds. Average **thousand kernel weight** (14% mb) was 32.5 g, lower than the 34.8 g reported last year and the 5-year average of 34.4 g. Average **kernel size** was 2.62 mm, smaller than the 2.74 mm reported last year and the 5-year average of 2.72 mm.

WHCB – Average **test weight** was 60.7 lb/bu (79.9 kg/hl), similar to the 60.6 lb/bu reported last year and the same as the 5-year average. Average **wheat protein** content (12% mb) was 10.6%, higher than the 10.1% reported last year and the 5-year average of 10.0%. Average **falling number** value (14% mb) was 327 seconds, lower than the 356 seconds reported last year and the 5-year average of 331 seconds. Average **thousand kernel weight** (14% mb) was 29.9 g, lower than the 30.2 g reported last year and the 5-year average of 30.7 g. Average **kernel size** was 2.49 mm, smaller than the 2.55 mm reported for last year as well as the 5-year average.

HRW – Average **test weight** was 61.7 lb/bu, similar to the 5-year average of 61.8 lb/bu. Average **wheat protein** content (12% mb) was 11.8%, slightly higher than the 5-year average of 11.6%. **Thousand kernel weight** (14% mb) was 36.3 g, higher than the 5-year average of 34.5 g. **Kernel size** was 2.83 mm, similar to the 5-year average of 2.82 mm.

HRS – Average **test weight** was 61.7 lb/bu, slightly lower than the 5-year average of 62.0 lb/bu. Average **wheat protein** content (12% mb) was 14.6%, the same as the 5-year average. **Thousand kernel weight** (14% mb) and **kernel size** were higher than the 5-year averages.

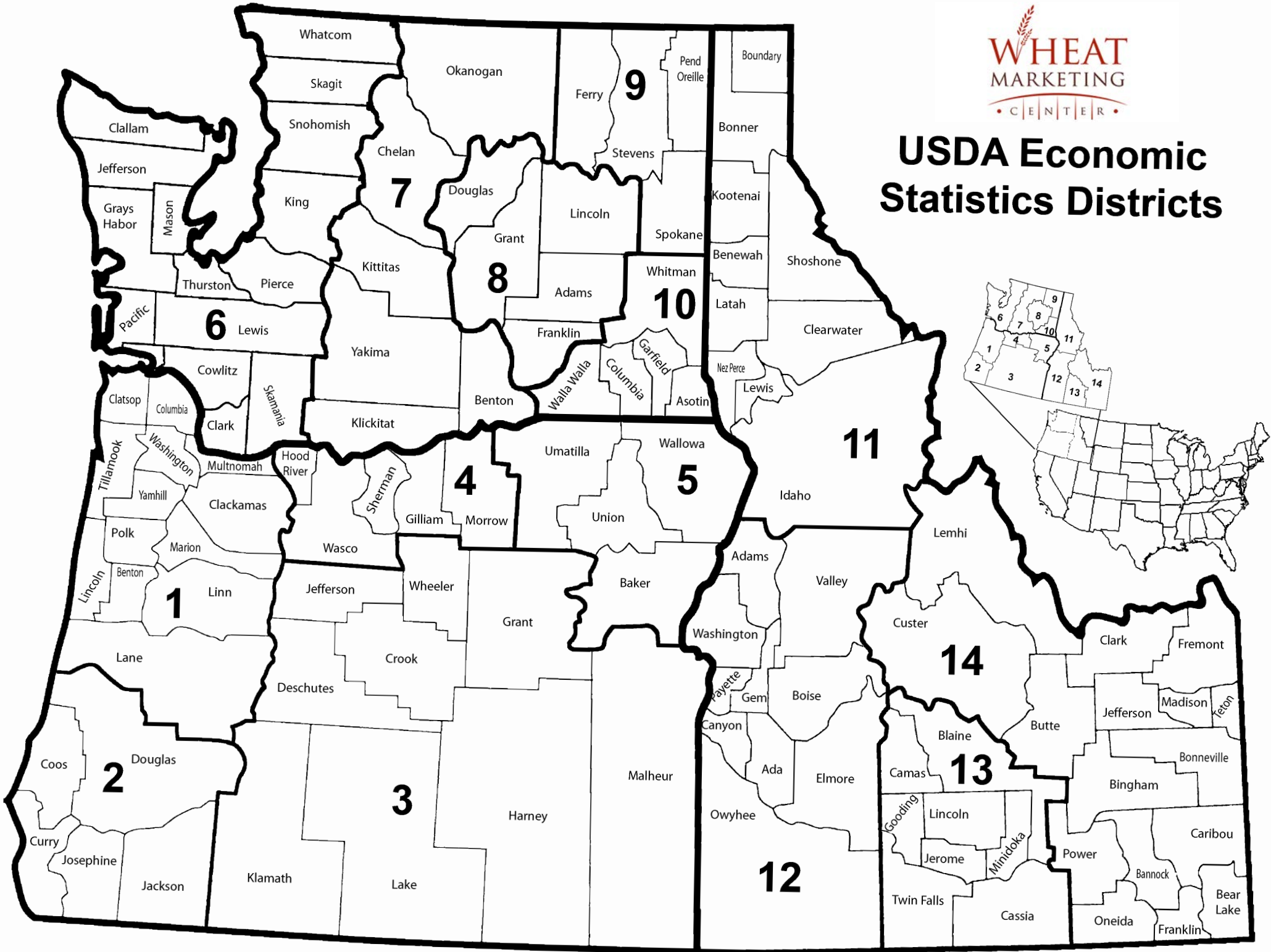
PACIFIC NORTHWEST WHEAT PRODUCTION ZONES (TABLE 2) DATA –

SWH – Average **wheat protein content (12% mb)** was highest for Zone C at 12.0% followed by Zone NE at 11.3%, Zone NC at 11.0%, Zone SE at 9.8% and the lowest was for Zone SW at 9.2%.

WHCB – Average **wheat protein content (12% mb)** for Zone NC and Zone C were both at 10.7%, followed by Zone NE at 9.8%.

We will now make SWH and WHCB composites to perform Buhler milling, and finished product tests for the US Wheat Associates 2023 Crop Quality Report as well as the 2023 U.S. Pacific Northwest Soft White Wheat Quality Report.

USDA Economic Statistics Districts





BY USDA ECONOMIC STATISTICS DISTRICTS

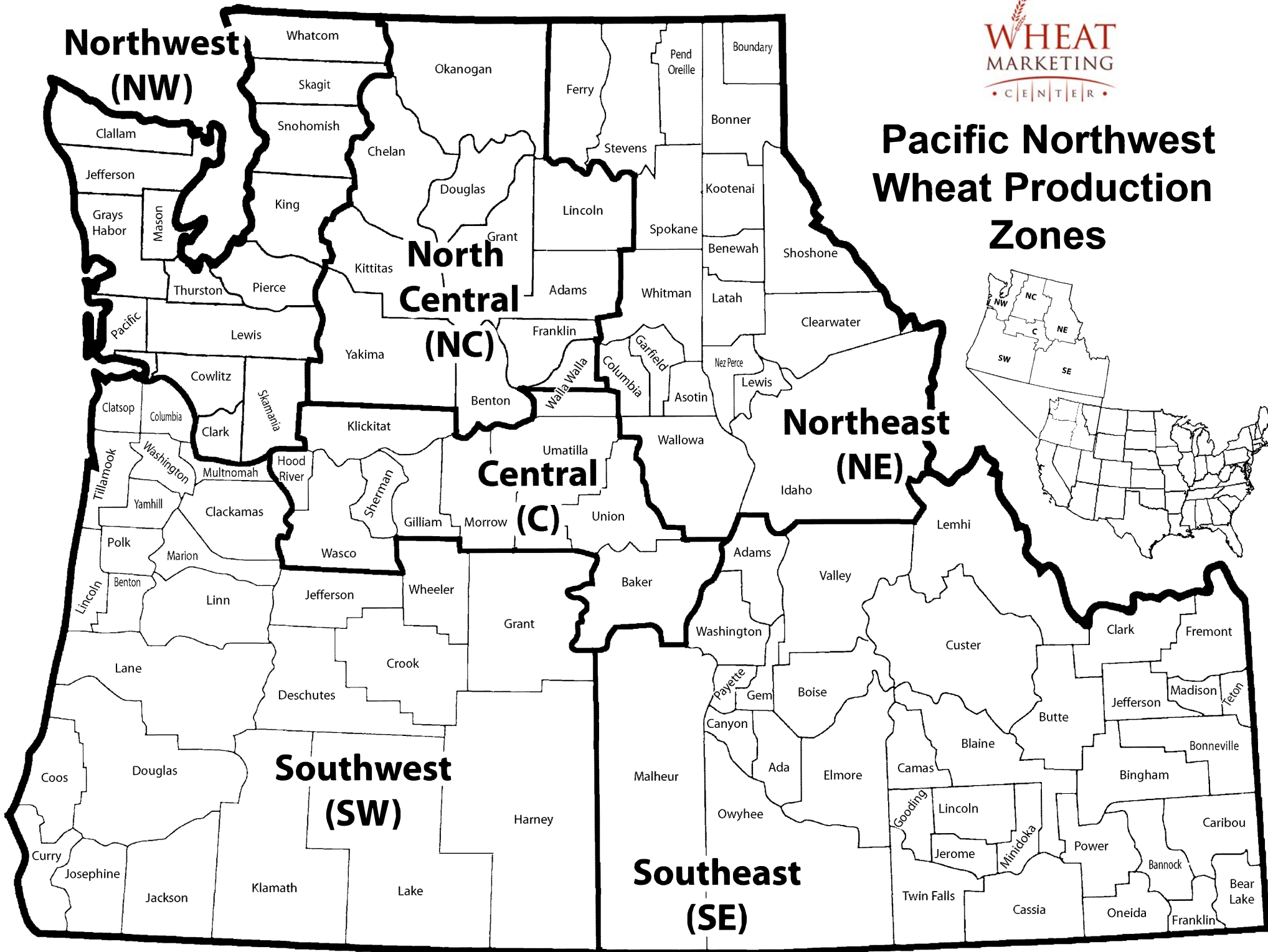
Table 1

2023 CROP WEEK 8: September 14, 2023

			Grading Data									Quality Data								
Class	District	Number of Samples	Test Weight (lb/bu)	Test Weight (kg/h)	Dockage (%)	Heat Damage (%)	Total Damage (%)	Foreign Material (%)	Shrunk & Broken (%)	Total Defects (%)	Moisture (%)	Protein (%; 12% mb)			Falling Number (s; 14%mb)	Thousand Kernel Weight (g; 14% mb)	Kernel Hardness (-20 to 120)	Kernel Size (mm)	Ash (%; 14% mb)	Wet Gluten (%; 14% mb)
												Average	Low	High						
SWH	112	10	61.3	80.7	0.3	0.0	0.0	0.0	0.9	0.9	10.4	8.6	8.0	10.0	333	38.2	24.4	2.79	1.36	16.4
SWH	3	12	60.9	80.1	0.6	0.0	0.5	0.0	0.5	1.0	9.1	10.4	9.1	12.4	290	40.2	24.6	2.87	1.60	22.7
SWH	4	54	59.3	78.1	0.3	0.0	0.0	0.1	0.9	1.0	8.7	12.1	10.6	15.5	344	28.0	22.2	2.49	1.38	30.6
SWH	5	47	59.8	78.7	0.3	0.0	0.0	0.0	1.0	1.0	8.8	11.8	10.2	14.7	341	30.0	20.9	2.54	1.43	29.4
SWH	617	23	60.4	79.4	0.6	0.0	0.0	0.0	0.5	0.6	10.0	11.6	9.6	12.7	341	35.1	20.1	2.71	1.45	28.1
SWH	8	110	60.3	79.4	0.5	0.0	0.0	0.1	0.8	0.8	8.9	10.8	7.3	14.8	334	32.3	20.8	2.60	1.27	26.0
SWH	10	40	59.9	78.8	0.5	0.0	0.0	0.1	0.7	0.8	8.7	12.0	9.5	15.1	347	31.0	17.6	2.58	1.36	29.7
SWH	11	34	61.7	81.1	0.3	0.0	0.0	0.0	0.7	0.7	8.9	10.6	8.8	14.0	342	32.7	23.7	2.63	1.40	23.1
SWH	12	6	61.5	80.8	0.5	0.0	0.1	0.0	0.3	0.4	9.2	9.7	8.7	10.7	290	43.5	20.6	2.91	1.55	21.6
SWH	13	11	61.0	80.3	0.3	0.0	0.1	0.0	0.5	0.6	9.5	9.6	7.7	11.8	333	40.7	24.9	2.89	1.61	13.4
SWH	14	38	59.4	78.1	0.3	0.0	0.1	0.3	0.5	0.8	10.8	9.7	7.8	11.9	312	34.4	15.3	2.68	1.51	18.9
	Crop Year Average																			
SWH	2023	385	60.2	79.2	0.4	0.0	0.0	0.1	0.7	0.8	9.1	11.0			334	32.5	20.7	2.62	1.39	25.8
SWH	2022	404	61.0	80.2	0.5	0.0	0.0	0.1	0.5	0.6	8.9	9.5			340	34.8	28.0	2.74	1.47	20.1
SWH	5-year average	416	61.1	80.3	0.5	0.0	0.0	0.0	0.6	0.7	9.1	10.0			326	34.4	28.7	2.72	1.40	22.8
WHCB	4	2	59.8	78.6	0.7	0.0	0.1	0.1	3.0	3.1	9.2	11.7	10.6	12.7	357	27.6	21.9	2.44	1.32	
WHCB	5	5	61.1	80.4	0.3	0.0	0.1	0.0	1.3	1.3	8.5	10.3	8.6	11.0	309	28.6	21.7	2.42	1.27	
WHCB	617	2	60.2	79.1	0.7	0.0	0.0	0.3	1.6	1.9	10.3	10.8	10.5	11.0	333	28.9	20.4	2.51	1.29	
WHCB	8	49	60.7	79.9	0.6	0.0	0.0	0.0	1.1	1.2	8.3	10.7	8.4	13.6	324	30.4	21.7	2.49	1.24	
WHCB	10	2	60.8	80.0	0.7	0.0	0.0	0.1	0.6	0.7	10.0	11.4	10.5	12.2	342	29.1	19.4	2.51	1.48	
WHCB	11	5	61.0	80.2	1.0	0.0	0.0	0.0	1.4	1.4	10.1	9.8	8.5	11.7	363	27.9	28.0	2.52	1.36	
	Crop Year Average																			
WHCB	2023	65	60.7	79.9	0.6	0.0	0.0	0.0	1.2	1.3	8.6	10.6			327	29.9	22.1	2.49	1.26	
WHCB	2022	53	60.6	79.8	0.8	0.0	0.0	0.0	1.1	1.1	7.8	10.1			356	30.2	31.1	2.55	1.36	
WHCB	5-year average	91	60.7	79.9	0.6	0.0	0.0	0.1	1.1	1.2	8.3	10.0			331	30.7	30.0	2.55	1.31	
HRW	3	1	57.9	76.2	0.3	0.0	0.2	0.0	0.3	0.5	11.1	15.3	15.3	15.3	387	42.5	56.1	3.02	1.50	41.4
HRW	4	7	62.0	81.6	0.3	0.0	0.0	0.1	0.9	1.0	8.4	12.8	11.7	14.8	350	31.9	63.0	2.69	1.47	31.1
HRW	5	6	60.3	79.3	0.5	0.0	0.6	0.0	1.2	1.8	9.4	12.4	11.7	13.6	358	32.9	70.3	2.73	1.47	26.4
HRW	617	5	61.3	80.6	0.4	0.0	0.0	0.0	0.7	0.7	10.7	13.4	12.8	14.0	376	35.0	56.9	2.77	1.37	32.2
HRW	8	20	62.2	81.8	0.3	0.0	0.0	0.0	0.5	0.5	8.7	11.9	10.6	14.0	372	38.3	59.8	2.90	1.35	26.8
HRW	10	2	59.9	78.8	0.6	0.0	0.0	0.0	0.3	0.3	11.8	15.8	15.6	15.9	358	30.2	62.9	2.73	1.53	40.3
HRW	11	9	62.1	81.7	0.2	0.0	0.0	0.0	0.4	0.4	8.1	11.4	10.6	12.1	348	35.2	66.1	2.85	1.24	23.9
HRW	12	6	62.7	82.4	0.2	0.0	0.0	0.0	0.5	0.5	8.8	10.3	9.5	10.8	345	40.7	62.3	3.01	1.48	19.8
HRW	13	3	61.6	81.0	0.5	0.0	0.0	0.1	0.5	0.6	9.5	10.1	9.1	11.6	329	42.3	59.3	3.02	1.56	18.9
HRW	14	14	61.5	80.8	0.1	0.0	0.4	0.0	0.6	1.0	10.4	11.0	8.2	12.9	334	35.5	55.8	2.74	1.54	21.9
	Crop Year Average																			
HRW	2023	73	61.7	81.1	0.3	0.0	0.1	0.0	0.6	0.7	9.3	11.8			355	36.3	61.0	2.83	1.42	25.9
HRW	2022	78	61.5	80.9	0.4	0.0	0.0	0.0	0.8	0.8	8.8	11.1			382	33.7	66.2	2.80	1.53	24.1
HRW	5-year average	87	61.8	81.2	0.3	0.0	0.0	0.0	0.6	0.7	8.9	11.6			367	34.5	66.5	2.82	1.42	26.3
HRS	4	4	61.4	80.7	0.9	0.0	0.0	0.1	0.9	1.0	9.0	14.8	14.2	15.2	398	32.6	70.8	2.82	1.62	35.7
HRS	5	4	63.7	83.7	0.1	0.0	0.0	0.1	0.5	0.5	9.1	14.1	13.4	14.9	335	36.0	60.7	2.88	1.56	36.0
HRS	617	3	60.7	79.8	0.2	0.0	0.0	0.0	0.3	0.3	10.2	14.3	13.0	15.2	361	35.5	59.9	2.84	1.61	34.7
HRS	8	11	61.5	80.9	0.7	0.0	0.0	0.0	0.7	0.7	9.4	14.8	11.0	16.9	367	32.8	63.6	2.75	1.60	36.6
HRS	10	3	59.7	78.6	0.7	0.0	0.0	0.0	0.7	0.7	9.2	15.0	14.6	15.3	415	28.3	62.8	2.69	1.52	34.1
HRS	11	4	62.2	81.8	0.4	0.0	0.0	0.0	0.5	0.5	8.5	15.0	14.1	15.8	405	28.4	76.5	2.60	1.37	36.4
HRS	14	7	62.1	81.7	0.3	0.0	0.2	0.0	0.5	0.7	10.4	14.4	13.7	15.3	345	30.4	67.6	2.71	1.66	32.5
	Crop Year Average																			
HRS	2023	36	61.7	81.2	0.5	0.0	0.0	0.0	0.6	0.7	9.5	14.6			370	32.0	65.9	2.75	1.58	35.2
HRS	2022	56	61.6	81.0	0.4	0.0	0.0	0.0	0.6	0.7	8.7	14.4			387	30.5	72.2	2.71	1.65	35.1
HRS	5-year average	64	62.0	81.6	0.4	0.0	0.1	0.0	0.8	0.9	9.1	14.6			379	30.8	71.6	2.72	1.61	36.4

* Wet gluten has been discontinued for club wheat

Pacific Northwest Wheat Production Zones





BY PRODUCTION ZONES

Table 2

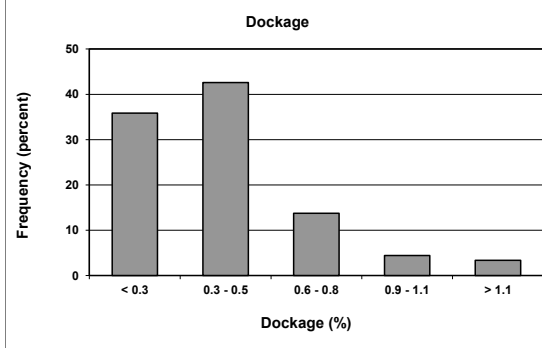
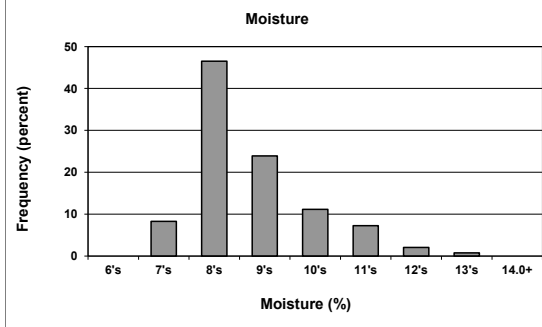
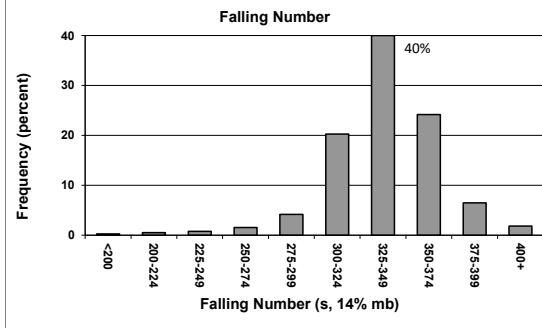
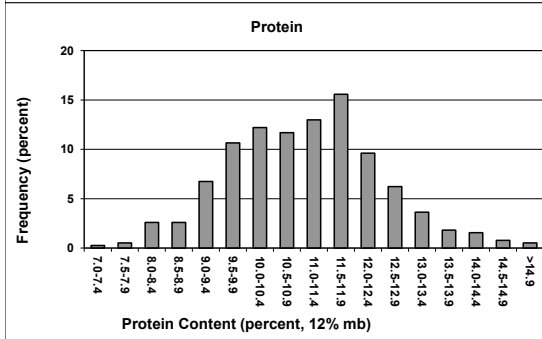
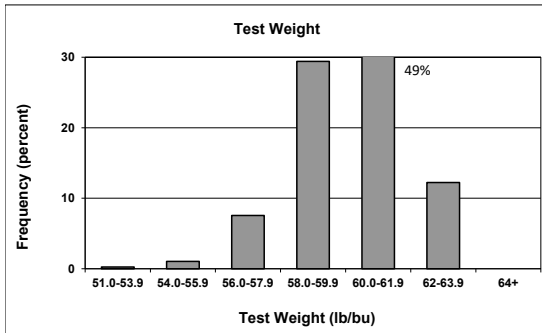
2023 CROP WEEK 8: September 14, 2023																				
		Grading Data										Quality Data								
Class	District	Number of Samples	Test Weight (lb/bu)	Test Weight (kg/hl)	Dockage (%)	Heat Damage (%)	Total Damage (%)	Foreign Material (%)	Shrunk & Broken (%)	Total Defects (%)	Moisture (%)	Protein (% 12% mb)			Falling Number (s, 14%mb)	Thousand Kernel Weight (g, 14% mb)	Kernel Hardness (-20 to 120)	Kernel Size (mm)	Ash (% 14% mb)	Wet Gluten (% 14% mb)
												Average	Low	High						
SWH	NC	144	60.3	79.3	0.5	0.0	0.0	0.1	0.7	0.8	9.0	11.0	7.3	14.8	339	32.7	19.9	2.62	1.30	26.5
SWH	NE	56	61.0	80.2	0.3	0.0	0.0	0.0	0.7	0.7	8.8	11.3	8.8	15.1	347	31.8	22.1	2.60	1.39	25.9
SWH	C	108	59.6	78.4	0.3	0.0	0.0	0.1	0.9	1.0	8.8	12.0	10.2	15.5	342	29.1	21.5	2.52	1.40	30.1
SWH	SW	12	60.7	79.8	0.4	0.0	0.1	0.0	0.9	1.0	10.5	9.2	8.0	12.4	334	37.6	23.2	2.78	1.38	18.4
SWH	SE	65	60.2	79.2	0.4	0.0	0.1	0.2	0.4	0.7	10.1	9.8	7.7	11.9	305	37.4	19.1	2.77	1.54	18.6
	Crop Year Average																			
SWH	2023	385	60.2	79.2	0.4	0.0	0.0	0.1	0.7	0.8	9.1	11.0			334	32.5	20.7	2.62	1.39	25.8
SWH	2022	404	61.0	80.2	0.5	0.0	0.0	0.1	0.5	0.6	8.9	9.5			340	34.8	28.0	2.74	1.47	20.1
SWH	5-year average	416	61.1	80.3	0.5	0.0	0.0	0.0	0.6	0.7	9.1	10.0			326	34.4	28.7	2.72	1.40	22.8
WHCB	NC	52	60.7	79.9	0.6	0.0	0.0	0.0	1.1	1.2	8.4	10.7	8.4	13.6	324	30.4	21.5	2.49	1.25	
WHCB	NE	5	61.0	80.2	1.0	0.0	0.0	0.0	1.4	1.4	10.1	9.8	8.5	11.7	363	27.9	28.0	2.52	1.36	
WHCB	C	8	60.7	79.8	0.4	0.0	0.1	0.1	1.8	1.9	8.9	10.7	8.6	12.7	324	27.8	21.9	2.42	1.29	
	Crop Year Average																			
WHCB	2023	65	60.7	79.9	0.6	0.0	0.0	0.0	1.2	1.3	8.6	10.6			327	29.9	22.1	2.49	1.26	
WHCB	2022	53	60.6	79.8	0.8	0.0	0.0	0.0	1.1	1.1	7.8	10.1			356	30.2	31.1	2.55	1.36	
WHCB	5-year average	91	60.7	79.9	0.6	0.0	0.0	0.1	1.1	1.2	8.3	10.0			331	30.7	30.0	2.55	1.31	
HRW	NC	26	61.9	81.4	0.4	0.0	0.0	0.0	0.5	0.5	9.2	12.5	10.6	15.9	371	37.2	59.3	2.87	1.37	28.7
HRW	NE	9	62.1	81.7	0.2	0.0	0.0	0.0	0.4	0.4	8.1	11.4	10.6	12.1	348	35.2	66.1	2.85	1.24	23.9
HRW	C	14	61.2	80.5	0.4	0.0	0.2	0.1	1.0	1.3	9.0	12.7	11.7	14.8	357	32.5	66.2	2.71	1.46	29.1
HRW	SW	1	57.9	76.2	0.3	0.0	0.2	0.0	0.3	0.5	11.1	15.3	15.3	15.3	387	42.5	56.1	3.02	1.50	41.4
HRW	SE	23	61.8	81.3	0.2	0.0	0.2	0.0	0.6	0.8	9.8	10.7	8.2	12.9	336	37.8	57.9	2.85	1.53	21.0
	Crop Year Average																			
HRW	2023	73	61.7	81.1	0.3	0.0	0.1	0.0	0.6	0.7	9.3	11.8			355	36.3	61.0	2.83	1.42	25.9
HRW	2022	78	61.5	80.9	0.4	0.0	0.0	0.0	0.8	0.8	8.8	11.1			382	33.7	66.2	2.80	1.53	24.1
HRW	5-year average	87	61.8	81.2	0.3	0.0	0.0	0.0	0.6	0.7	8.9	11.6			367	34.5	66.5	2.82	1.42	26.3
HRS	NC	16	61.2	80.5	0.7	0.0	0.0	0.0	0.6	0.6	9.5	14.8	11.0	16.9	374	32.6	62.9	2.76	1.58	36.2
HRS	NE	4	62.2	81.8	0.4	0.0	0.0	0.0	0.5	0.5	8.5	15.0	14.1	15.8	405	28.4	76.5	2.60	1.37	36.4
HRS	C	9	62.1	81.7	0.5	0.0	0.0	0.1	0.7	0.7	9.1	14.3	13.0	15.2	364	33.9	65.2	2.84	1.59	35.2
HRS	SE	7	62.1	81.7	0.3	0.0	0.2	0.0	0.5	0.7	10.4	14.4	13.7	15.3	345	30.4	67.6	2.71	1.66	32.5
	Crop Year Average																			
HRS	2023	36	61.7	81.2	0.5	0.0	0.0	0.0	0.6	0.7	9.5	14.6			370	32.0	65.9	2.75	1.58	35.2
HRS	2022	56	61.6	81.0	0.4	0.0	0.0	0.0	0.6	0.7	8.7	14.4			387	30.5	72.2	2.71	1.65	35.1
HRS	5-year average	64	62.0	81.6	0.4	0.0	0.1	0.0	0.8	0.9	9.1	14.6			379	30.8	71.6	2.72	1.61	36.4

* Wet gluten has been discontinued for club wheat

Distributions

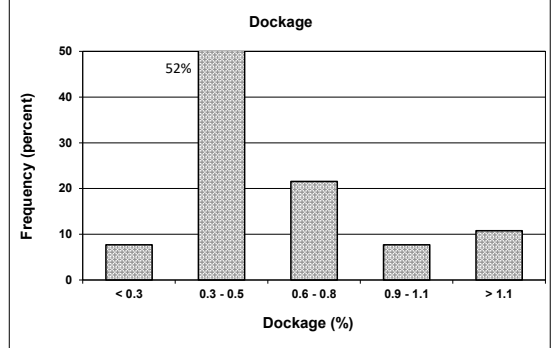
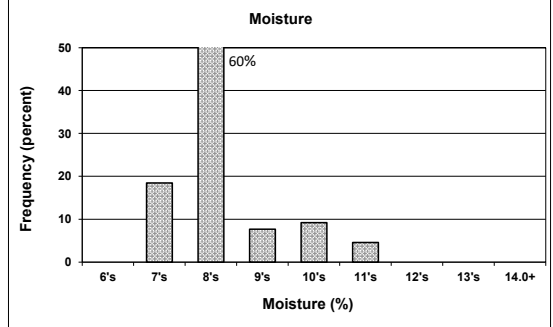
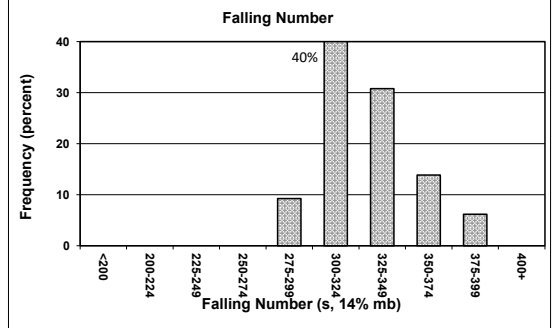
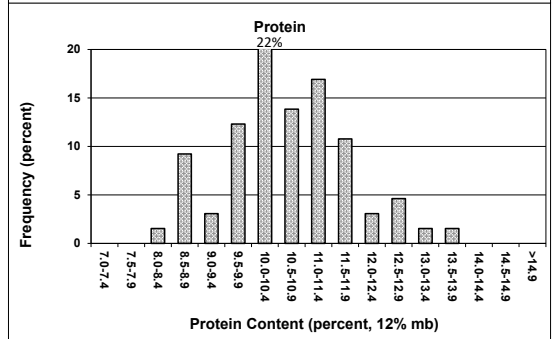
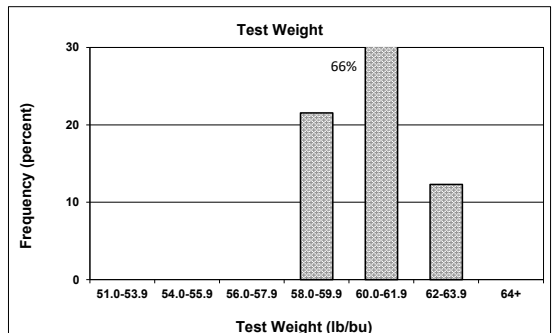
SOFT WHITE WHEAT

385 SAMPLES



WHITE CLUB WHEAT

65 SAMPLES



Prepared by: Wheat Marketing Center, Portland, Oregon