



2019 PACIFIC NORTHWEST CROP QUALITY REPORT

WEEK 5: August 29, 2019

We received and tested 560 samples so far for the Pacific Northwest 2019 wheat harvest.

Of the 137 wheat samples received for the fifth week, 78 were soft white (SWH), 24 were white club (WHCB), 8 were hard red winter (HRW), 17 were hard red spring (HRS), 9 were hard white (HDWH), and one was mixed wheat. Forty-seven samples (34%) came from District 8 (East Central Washington); 30 (22%) were from District 14 (Southeastern Idaho); 20 (15%) were from District 4 (North Central Oregon); 14 (10%) each were from Districts 5 (Northeastern Oregon) and 10 (Southeastern Washington); and less than 10 each were from Districts 13 (South Central Idaho) and 67 (Western Washington).

USDA Economic Statistics Districts (Table 1) showed the following:

SWH average test weight was 61.6 lb/bu compared to 61.7 lb/bu last year, average moisture was 9.7% compared to 8.6% last year, average protein (12% mb) was 10.1% compared to 9.3% last year, and average falling number value was 301 seconds when compared to 315 seconds last year. Samples had heavy thousand kernel weight and large kernel size. The highest SWH whole meal wet gluten value (14% mb) was shown in District 9 (Northeastern Washington) at 32.8% followed by Districts 67 at 25.8% with 12.4% and 10.5% protein contents (12% mb), respectively. WHCB weighted averages showed 9.1% wheat moisture, 10.0% (12% mb) wheat protein, and 310 seconds (14% mb) falling number value. HRW and HRS weighted averages indicated similar test weight, higher moisture, higher protein content, and lower falling number values when compared to last year.

We continue to report results from the six PNW Production Zones (Table 2): Northwest (NW), Southwest (SW), North Central (NC), Central (C), Northeast (NE), and Southeast (SE). The Zones are based on country elevator locations and climatic conditions. This week samples came from Zones NC (45%), C (28%), and SE (27%). So far, we received only one sample from Zone NW.

The SWH average protein (12% mb) was the highest for Zone NE at 10.4% followed by Zone NC at 10.2%, and the lowest for Zone SW at 8.5%. The WHCB average protein (12% mb) was the highest at 10.8% for Zone NE followed by 10.0% for Zone NC with 4 and 81 samples, respectively.



BY USDA ECONOMIC STATISTICS DISTRICTS

Table 1

2019 CROP WEEK 5 August 29, 2019																					
Class	District	Number of Samples	Grading Data									Quality Data									
			Test Weight (lb/bu)	Test Weight (kg/ha)	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	1 2	11	59.5	78.3	0.4	0.0	0.0	0.0	0.0	0.5	0.6	11.7	8.5	7.6	9.7	301	40.0	15.4	2.86	1.40	18.2
SWH	3	2	61.0	80.2	0.3	0.0	0.0	0.0	0.0	0.7	0.7	10.6	9.1	8.8	9.4	271	44.4	23.8	2.97	1.57	21.0
SWH	4	35	61.6	81.0	0.5	0.0	0.0	0.0	0.0	0.4	0.5	10.0	10.1	7.8	12.9	304	35.4	20.7	2.76	1.32	25.2
SWH	5	19	61.0	80.2	0.4	0.0	0.0	0.0	0.2	0.5	0.7	9.2	9.8	7.3	11.2	242	36.5	22.0	2.81	1.43	23.0
SWH	6 7	19	61.2	80.5	0.6	0.0	0.0	0.0	0.2	0.7	0.8	10.0	10.5	8.0	13.6	292	34.9	23.5	2.70	1.29	25.8
SWH	8	117	61.6	81.0	0.4	0.0	0.0	0.0	0.0	0.5	0.6	9.4	10.2	7.7	15.9	297	35.0	24.3	2.71	1.28	25.0
SWH	9	2	58.7	77.3	0.7	0.0	0.0	0.0	1.5	1.5	9.3	12.4	8.8	15.9	230	29.2	19.9	2.55	1.57	32.8	
SWH	10	50	62.6	82.3	0.4	0.0	0.0	0.0	0.4	0.5	9.3	10.3	8.7	12.2	311	36.1	25.5	2.79	1.30	25.0	
SWH	11	22	62.7	82.4	0.5	0.0	0.0	0.0	0.5	0.5	10.0	10.2	9.2	11.0	315	34.5	26.6	2.74	1.40	24.0	
SWH	12	6	60.6	79.8	0.7	0.0	0.3	0.5	0.2	1.0	9.6	9.2	8.5	9.7	262	45.4	19.3	2.99	1.55	21.1	
SWH	13	12	62.4	82.1	0.2	0.0	0.0	0.0	0.2	0.2	10.1	9.1	7.7	10.8	339	41.2	31.1	2.88	1.52	18.1	
SWH	14	34	61.2	80.4	0.3	0.0	0.0	0.0	0.3	0.4	10.6	10.0	8.2	12.5	327	39.7	25.6	2.84	1.55	21.5	
	Crop Year Average																				
SWH	2019	329	61.6	81.1	0.4	0.0	0.0	0.0	0.5	0.5	9.7	10.1			301	36.3	24.0	2.77	1.35	24.0	
SWH	2018	473	61.7	80.9	0.5	0.0	0.0	0.0	0.5	0.6	8.6	9.3			315	35.7	27.2	2.77	1.36	20.6	
WHCB	4	1	62.6	82.3	0.6	0.0	0.0	0.0	0.3	0.3	9.2	10.7	10.7	10.7	345	32.5	38.9	2.74	1.34	27.2	
WHCB	5	1	61.5	80.9	0.5	0.0	0.0	0.0	0.4	0.4	9.9	9.1	9.1	9.1	268	39.8	25.5	2.54	1.21	15.8	
WHCB	6 7	4	58.7	77.2	0.7	0.0	0.0	0.1	1.4	1.5	9.8	9.6	8.2	10.3	284	32.6	18.0	2.52	1.32	21.3	
WHCB	8	76	60.6	79.7	0.9	0.0	0.0	0.0	1.1	1.2	9.1	10.0	7.8	13.0	312	31.6	19.6	2.53	1.28	23.3	
WHCB	10	6	60.9	80.1	0.7	0.0	0.0	0.6	1.5	2.1	8.7	10.3	8.0	12.7	312	28.5	29.3	2.51	1.32	24.9	
	Crop Year Average																				
WHCB	2019	88	60.5	79.6	0.8	0.0	0.0	0.1	1.2	1.2	9.1	10.0			310	31.5	20.5	2.53	1.28	23.3	
WHCB	2018	128	61.2	80.5	0.5	0.0	0.0	0.1	0.8	0.9	8.1	9.0			316	32.8	27.9	2.62	1.29	15.8	
HRW	4	4	62.1	81.6	0.9	0.0	0.0	0.0	0.4	0.4	9.2	11.8	8.4	13.9	315	32.0	63.4	2.74	1.38	28.8	
HRW	5	4	63.2	83.0	0.4	0.0	0.1	0.0	0.2	0.3	9.5	12.5	11.6	13.7	328	39.9	61.5	3.02	1.50	29.9	
HRW	6 7	8	63.1	82.9	0.3	0.0	0.0	0.0	0.2	0.3	10.9	11.9	10.8	12.8	366	37.8	69.8	2.84	1.27	30.3	
HRW	8	22	62.2	81.7	0.5	0.0	0.0	0.0	0.6	0.6	9.5	12.1	10.1	14.8	357	36.4	59.9	2.85	1.35	28.9	
HRW	10	17	63.2	83.0	0.4	0.0	0.0	0.0	0.5	0.6	9.5	11.1	9.4	12.6	344	35.6	64.7	2.85	1.29	24.6	
HRW	11	23	63.1	82.9	0.3	0.0	0.0	0.0	0.4	0.4	9.2	10.9	9.4	13.1	346	36.1	64.5	2.89	1.36	23.4	
HRW	13	4	62.2	81.7	0.1	0.0	0.0	0.0	0.3	0.3	8.4	12.0	11.9	12.2	380	37.4	67.4	2.96	1.42	28.6	
HRW	14	4	60.8	80.0	0.2	0.0	0.0	0.0	0.5	0.5	9.7	11.3	10.9	11.9	361	36.6	69.2	2.96	1.47	25.8	
	Crop Year Average																				
HRW	2019	86	62.7	82.4	0.4	0.0	0.0	0.0	0.4	0.5	9.5	11.5			350	36.3	64.0	2.87	1.35	26.6	
HRW	2018	112	62.9	82.7	0.3	0.0	0.0	0.0	0.5	0.5	8.3	11.1			365	36.7	65.3	2.92	1.38	25.1	
HRS	4	2	62.0	81.5	0.2	0.0	1.6	0.1	0.3	2.0	9.3	14.1	13.7	14.5	366	36.2	60.1	2.92	1.51	35.6	
HRS	6 7	4	63.3	83.1	0.6	0.0	0.0	0.0	0.3	0.3	10.0	14.7	13.9	16.0	387	38.2	63.6	2.94	1.42	39.9	
HRS	8	13	63.1	82.9	0.5	0.0	0.0	0.1	0.7	0.8	9.4	14.6	12.5	16.2	335	35.4	63.1	2.87	1.70	38.7	
HRS	10	11	63.2	83.1	0.4	0.0	0.0	0.1	0.8	0.8	9.1	14.4	12.9	15.7	385	31.4	69.8	2.74	1.50	34.4	
HRS	11	4	62.5	82.2	0.3	0.0	0.0	0.0	0.7	0.7	8.0	15.2	14.9	15.6	402	24.6	76.2	2.53	1.55	38.5	
HRS	13	2	63.4	83.3	0.3	0.0	0.0	0.2	0.5	0.7	11.1	14.4	13.5	15.3	436	33.2	75.1	2.80	1.67	35.4	
HRS	14	8	62.6	82.3	0.4	0.0	0.0	0.1	0.8	0.9	11.0	14.9	14.3	15.5	409	33.5	72.9	2.83	1.68	36.9	
	Crop Year Average																				
HRS	2019	44	62.9	82.7	0.4	0.0	0.1	0.1	0.7	0.8	9.6	14.6			378	33.3	68.2	2.81	1.60	37.1	
HRS	2018	95	62.6	82.3	0.4	0.0	0.0	0.0	0.8	0.8	8.7	14.1			386	32.3	72.2	2.77	1.56	35.0	



BY PRODUCTION ZONES

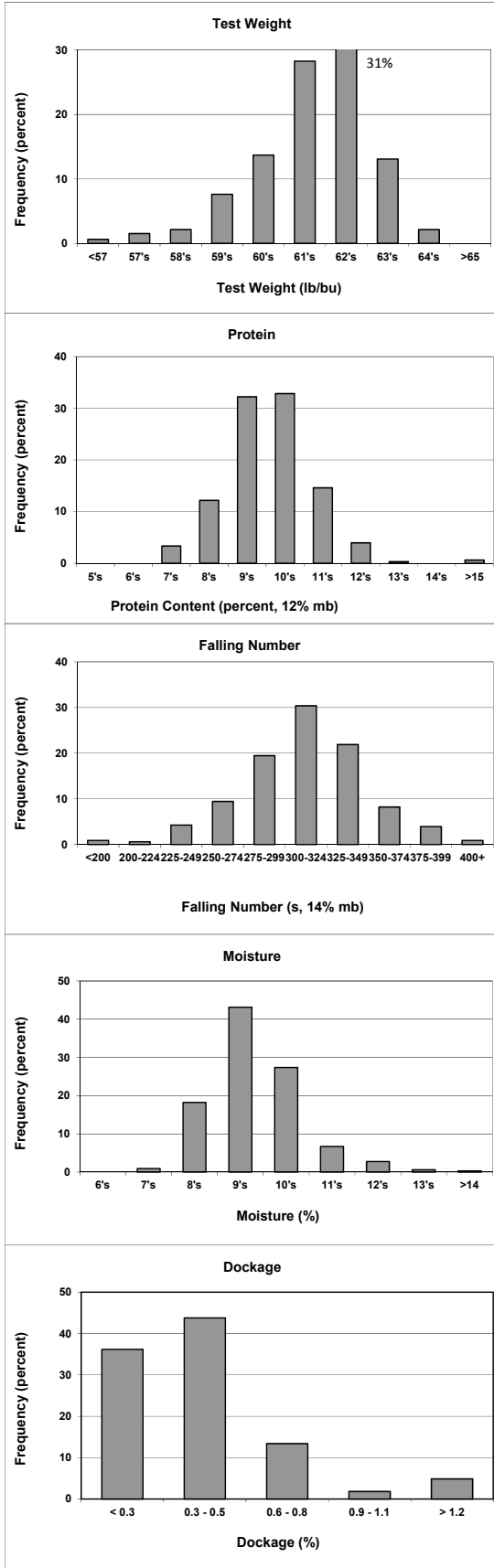
Table 2

2019 CROP WEEK 5 August 29, 2019																				
		Grading Data										Quality Data								
Class	District	Number of Samples	Test Weight (lb/bu)	Test Weight (kg/ht)	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	145	61.7	81.1	0.4	0.0	0.0	0.0	0.5	0.6	9.4	10.2	7.7	15.9	305	35.2	24.3	2.73	1.28	25.1
SWH	NE	50	62.7	82.4	0.4	0.0	0.0	0.0	0.5	0.5	9.6	10.4	8.8	15.9	308	34.9	25.8	2.75	1.34	25.3
SWH	C	68	61.4	80.8	0.5	0.0	0.0	0.1	0.5	0.6	9.7	10.0	7.3	12.9	285	35.6	21.9	2.77	1.36	24.5
SWH	SW	11	59.5	78.3	0.4	0.0	0.0	0.0	0.5	0.6	11.7	8.5	7.6	9.7	301	40.0	15.4	2.86	1.40	18.2
SWH	SE	54	61.4	80.7	0.3	0.0	0.0	0.1	0.3	0.4	10.4	9.7	7.7	12.5	318	40.8	26.1	2.87	1.54	20.7
	Crop Year Average																			
SWH	2019	329	61.6	81.1	0.4	0.0	0.0	0.0	0.5	0.5	9.7	10.1			301	36.3	24.0	2.77	1.35	24.0
SWH	2018	473	61.7	80.9	0.5	0.0	0.0	0.0	0.5	0.6	8.6	9.3			315	35.7	27.2	2.77	1.36	20.6
WHCB	NC	81	60.5	79.6	0.8	0.0	0.0	0.0	1.2	1.2	9.1	10.0	7.8	13.0	310	31.6	19.7	2.53	1.28	23.3
WHCB	NE	4	60.6	79.7	0.9	0.0	0.0	0.9	2.0	2.9	8.3	10.8	8.0	12.7	320	26.3	30.4	2.47	1.31	26.0
WHCB	C	3	61.1	80.3	0.5	0.0	0.0	0.0	0.4	0.4	9.6	9.3	8.2	10.7	293	36.2	27.2	2.64	1.30	19.0
	Crop Year Average																			
WHCB	2019	88	60.5	79.6	0.8	0.0	0.0	0.1	1.2	1.2	9.1	10.0			310	31.5	20.5	2.53	1.28	23.3
WHCB	2018	128	61.2	80.5	0.5	0.0	0.0	0.1	0.8	0.9	8.1	9.0			316	32.8	27.9	2.62	1.29	15.8
HRW	NC	30	62.3	81.9	0.5	0.0	0.0	0.0	0.5	0.5	9.8	12.0	10.1	14.8	361	36.2	62.6	2.83	1.34	29.2
HRW	NE	30	63.3	83.2	0.3	0.0	0.0	0.0	0.4	0.4	9.3	10.7	9.4	12.4	337	36.7	62.9	2.90	1.29	23.2
HRW	C	12	62.8	82.6	0.5	0.0	0.0	0.0	0.5	0.5	9.6	12.0	8.4	13.9	325	36.2	63.5	2.87	1.38	28.4
HRW	SE	14	61.9	81.4	0.2	0.0	0.0	0.0	0.5	0.5	9.2	11.7	10.5	13.1	381	35.7	69.8	2.91	1.47	26.7
	Crop Year Average																			
HRW	2019	86	62.7	82.4	0.4	0.0	0.0	0.0	0.4	0.5	9.5	11.5			350	36.3	64.0	2.87	1.35	26.6
HRW	2018	112	62.9	82.7	0.3	0.0	0.0	0.0	0.5	0.5	8.3	11.1			365	36.7	65.3	2.92	1.38	25.1
HRS	NC	19	63.2	83.1	0.5	0.0	0.0	0.0	0.8	0.8	9.5	14.5	12.5	16.2	348	35.5	64.4	2.87	1.60	38.1
HRS	NE	12	62.8	82.6	0.3	0.0	0.0	0.1	0.6	0.6	8.6	14.6	12.9	15.7	398	28.4	72.2	2.66	1.54	35.3
HRS	C	3	62.4	82.1	0.4	0.0	1.1	0.0	0.3	1.4	9.5	14.7	13.7	16.0	356	37.9	59.1	2.95	1.51	40.1
HRS	SE	10	62.8	82.5	0.3	0.0	0.0	0.1	0.7	0.8	11.0	14.8	13.5	15.5	414	33.4	73.4	2.83	1.68	36.6
	Crop Year Average																			
HRS	2019	44	62.9	82.7	0.4	0.0	0.1	0.1	0.7	0.8	9.6	14.6			378	33.3	68.2	2.81	1.60	37.1
HRS	2018	95	62.6	82.3	0.4	0.0	0.0	0.0	0.8	0.8	8.7	14.1			386	32.3	72.2	2.77	1.56	35.0

Distributions

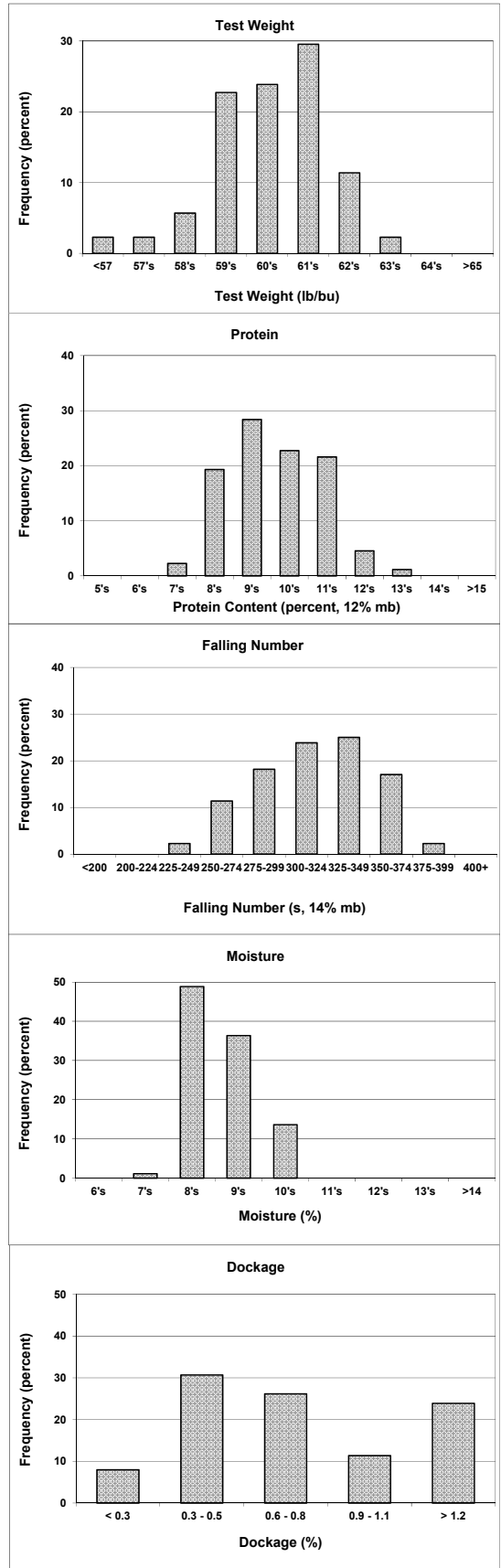
SOFT WHITE WHEAT

329 SAMPLES



WHITE CLUB WHEAT

88 SAMPLE



Prepared by: Wheat Marketing Center, Portland, Oregon



Table 3

SOFT WHITE WHEAT WEEKLY ZONE COMPOSITES

2019 CROP WEEK 5 August 29, 2019												
			<i>Buhler Test Mill Data</i>					<i>Flour Data</i>				
Class	Zone	Number of Samples	Wheat Protein (%, 12% mb)	Flour Extraction (%)	Break Flour Yield (%)	Bran (%)	Shorts (%)	Moisture (%)	Farinograph			
									Absorption (%, 14% mb)	Peak (minutes)	Stability (minutes)	MTI (BU)
SWH	C	65	10.0	73.7	21.3	18.9	7.4	12.9	50.8	1.6	2.9	80
SWH	NC	145	10.4	72.8	20.8	18.8	8.4	12.9	52.0	1.9	3.8	60
SWH	NE	50	10.4	73.3	21.3	18.8	7.9	13.0	52.6	1.7	2.5	98
SWH	SE	52	9.6	73.7	22.4	18.2	8.1	12.8	52.0	1.5	1.8	103
SWH	SW	11	8.5	74.0	24.4	17.9	8.2	12.9	50.2	1.0	1.0	119
	Crop Year Average											
SWH	2019	323	10.1	73.3	21.4	18.7	8.0	12.9	51.8	1.7	3.0	79
SWH	2018	471	9.3	75.0	21.4	19.8	5.1	12.5	51.2	2.2	3.1	85



BY USDA ECONOMIC STATISTICS DISTRICTS

Table 1

2019 CROP WEEK 5 August 29, 2019																					
Class	District	Number of Samples	Grading Data									Quality Data									
			Test Weight (lb/bu)	Test Weight (kg/ha)	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	1 2	11	59.5	78.3	0.4	0.0	0.0	0.0	0.0	0.5	0.6	11.7	8.5	7.6	9.7	301	40.0	15.4	2.86	1.40	18.2
SWH	3	2	61.0	80.2	0.3	0.0	0.0	0.0	0.0	0.7	0.7	10.6	9.1	8.8	9.4	271	44.4	23.8	2.97	1.57	21.0
SWH	4	35	61.6	81.0	0.5	0.0	0.0	0.0	0.0	0.4	0.5	10.0	10.1	7.8	12.9	304	35.4	20.7	2.76	1.32	25.2
SWH	5	19	61.0	80.2	0.4	0.0	0.0	0.0	0.2	0.5	0.7	9.2	9.8	7.3	11.2	242	36.5	22.0	2.81	1.43	23.0
SWH	6 7	19	61.2	80.5	0.6	0.0	0.0	0.0	0.2	0.7	0.8	10.0	10.5	8.0	13.6	292	34.9	23.5	2.70	1.29	25.8
SWH	8	117	61.6	81.0	0.4	0.0	0.0	0.0	0.0	0.5	0.6	9.4	10.2	7.7	15.9	297	35.0	24.3	2.71	1.28	25.0
SWH	9	2	58.7	77.3	0.7	0.0	0.0	0.0	1.5	1.5	9.3	12.4	8.8	15.9	230	29.2	19.9	2.55	1.57	32.8	
SWH	10	50	62.6	82.3	0.4	0.0	0.0	0.0	0.4	0.5	9.3	10.3	8.7	12.2	311	36.1	25.5	2.79	1.30	25.0	
SWH	11	22	62.7	82.4	0.5	0.0	0.0	0.0	0.5	0.5	10.0	10.2	9.2	11.0	315	34.5	26.6	2.74	1.40	24.0	
SWH	12	6	60.6	79.8	0.7	0.0	0.3	0.5	0.2	1.0	9.6	9.2	8.5	9.7	262	45.4	19.3	2.99	1.55	21.1	
SWH	13	12	62.4	82.1	0.2	0.0	0.0	0.0	0.2	0.2	10.1	9.1	7.7	10.8	339	41.2	31.1	2.88	1.52	18.1	
SWH	14	34	61.2	80.4	0.3	0.0	0.0	0.0	0.3	0.4	10.6	10.0	8.2	12.5	327	39.7	25.6	2.84	1.55	21.5	
	Crop Year Average																				
SWH	2019	329	61.6	81.1	0.4	0.0	0.0	0.0	0.5	0.5	9.7	10.1			301	36.3	24.0	2.77	1.35	24.0	
SWH	2018	473	61.7	80.9	0.5	0.0	0.0	0.0	0.5	0.6	8.6	9.3			315	35.7	27.2	2.77	1.36	20.6	
WHCB	4	1	62.6	82.3	0.6	0.0	0.0	0.0	0.3	0.3	9.2	10.7	10.7	10.7	345	32.5	38.9	2.74	1.34	27.2	
WHCB	5	1	61.5	80.9	0.5	0.0	0.0	0.0	0.4	0.4	9.9	9.1	9.1	9.1	268	39.8	25.5	2.54	1.21	15.8	
WHCB	6 7	4	58.7	77.2	0.7	0.0	0.0	0.1	1.4	1.5	9.8	9.6	8.2	10.3	284	32.6	18.0	2.52	1.32	21.3	
WHCB	8	76	60.6	79.7	0.9	0.0	0.0	0.0	1.1	1.2	9.1	10.0	7.8	13.0	312	31.6	19.6	2.53	1.28	23.3	
WHCB	10	6	60.9	80.1	0.7	0.0	0.0	0.6	1.5	2.1	8.7	10.3	8.0	12.7	312	28.5	29.3	2.51	1.32	24.9	
	Crop Year Average																				
WHCB	2019	88	60.5	79.6	0.8	0.0	0.0	0.1	1.2	1.2	9.1	10.0			310	31.5	20.5	2.53	1.28	23.3	
WHCB	2018	128	61.2	80.5	0.5	0.0	0.0	0.1	0.8	0.9	8.1	9.0			316	32.8	27.9	2.62	1.29	15.8	
HRW	4	4	62.1	81.6	0.9	0.0	0.0	0.0	0.4	0.4	9.2	11.8	8.4	13.9	315	32.0	63.4	2.74	1.38	28.8	
HRW	5	4	63.2	83.0	0.4	0.0	0.1	0.0	0.2	0.3	9.5	12.5	11.6	13.7	328	39.9	61.5	3.02	1.50	29.9	
HRW	6 7	8	63.1	82.9	0.3	0.0	0.0	0.0	0.2	0.3	10.9	11.9	10.8	12.8	366	37.8	69.8	2.84	1.27	30.3	
HRW	8	22	62.2	81.7	0.5	0.0	0.0	0.0	0.6	0.6	9.5	12.1	10.1	14.8	357	36.4	59.9	2.85	1.35	28.9	
HRW	10	17	63.2	83.0	0.4	0.0	0.0	0.0	0.5	0.6	9.5	11.1	9.4	12.6	344	35.6	64.7	2.85	1.29	24.6	
HRW	11	23	63.1	82.9	0.3	0.0	0.0	0.0	0.4	0.4	9.2	10.9	9.4	13.1	346	36.1	64.5	2.89	1.36	23.4	
HRW	13	4	62.2	81.7	0.1	0.0	0.0	0.0	0.3	0.3	8.4	12.0	11.9	12.2	380	37.4	67.4	2.96	1.42	28.6	
HRW	14	4	60.8	80.0	0.2	0.0	0.0	0.0	0.5	0.5	9.7	11.3	10.9	11.9	361	36.6	69.2	2.96	1.47	25.8	
	Crop Year Average																				
HRW	2019	86	62.7	82.4	0.4	0.0	0.0	0.0	0.4	0.5	9.5	11.5			350	36.3	64.0	2.87	1.35	26.6	
HRW	2018	112	62.9	82.7	0.3	0.0	0.0	0.0	0.5	0.5	8.3	11.1			365	36.7	65.3	2.92	1.38	25.1	
HRS	4	2	62.0	81.5	0.2	0.0	1.6	0.1	0.3	2.0	9.3	14.1	13.7	14.5	366	36.2	60.1	2.92	1.51	35.6	
HRS	6 7	4	63.3	83.1	0.6	0.0	0.0	0.0	0.3	0.3	10.0	14.7	13.9	16.0	387	38.2	63.6	2.94	1.42	39.9	
HRS	8	13	63.1	82.9	0.5	0.0	0.0	0.1	0.7	0.8	9.4	14.6	12.5	16.2	335	35.4	63.1	2.87	1.70	38.7	
HRS	10	11	63.2	83.1	0.4	0.0	0.0	0.1	0.8	0.8	9.1	14.4	12.9	15.7	385	31.4	69.8	2.74	1.50	34.4	
HRS	11	4	62.5	82.2	0.3	0.0	0.0	0.0	0.7	0.7	8.0	15.2	14.9	15.6	402	24.6	76.2	2.53	1.55	38.5	
HRS	13	2	63.4	83.3	0.3	0.0	0.0	0.2	0.5	0.7	11.1	14.4	13.5	15.3	436	33.2	75.1	2.80	1.67	35.4	
HRS	14	8	62.6	82.3	0.4	0.0	0.0	0.1	0.8	0.9	11.0	14.9	14.3	15.5	409	33.5	72.9	2.83	1.68	36.9	
	Crop Year Average																				
HRS	2019	44	62.9	82.7	0.4	0.0	0.1	0.1	0.7	0.8	9.6	14.6			378	33.3	68.2	2.81	1.60	37.1	
HRS	2018	95	62.6	82.3	0.4	0.0	0.0	0.0	0.8	0.8	8.7	14.1			386	32.3	72.2	2.77	1.56	35.0	



BY PRODUCTION ZONES

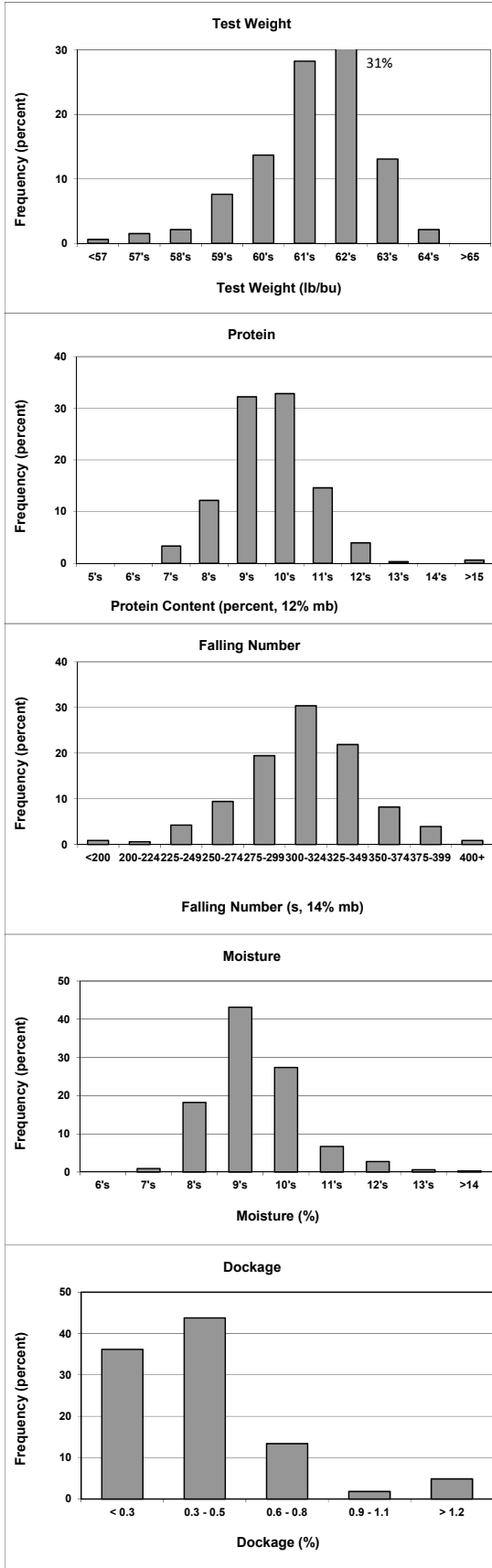
Table 2

2019 CROP WEEK 5 August 29, 2019																				
		Grading Data										Quality Data								
Class	District	Number of Samples	Test Weight (lb/bu)	Test Weight (kg/ht)	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	145	61.7	81.1	0.4	0.0	0.0	0.0	0.5	0.6	9.4	10.2	7.7	15.9	305	35.2	24.3	2.73	1.28	25.1
SWH	NE	50	62.7	82.4	0.4	0.0	0.0	0.0	0.5	0.5	9.6	10.4	8.8	15.9	308	34.9	25.8	2.75	1.34	25.3
SWH	C	68	61.4	80.8	0.5	0.0	0.0	0.1	0.5	0.6	9.7	10.0	7.3	12.9	285	35.6	21.9	2.77	1.36	24.5
SWH	SW	11	59.5	78.3	0.4	0.0	0.0	0.0	0.5	0.6	11.7	8.5	7.6	9.7	301	40.0	15.4	2.86	1.40	18.2
SWH	SE	54	61.4	80.7	0.3	0.0	0.0	0.1	0.3	0.4	10.4	9.7	7.7	12.5	318	40.8	26.1	2.87	1.54	20.7
	Crop Year Average																			
SWH	2019	329	61.6	81.1	0.4	0.0	0.0	0.0	0.5	0.5	9.7	10.1			301	36.3	24.0	2.77	1.35	24.0
SWH	2018	473	61.7	80.9	0.5	0.0	0.0	0.0	0.5	0.6	8.6	9.3			315	35.7	27.2	2.77	1.36	20.6
WHCB	NC	81	60.5	79.6	0.8	0.0	0.0	0.0	1.2	1.2	9.1	10.0	7.8	13.0	310	31.6	19.7	2.53	1.28	23.3
WHCB	NE	4	60.6	79.7	0.9	0.0	0.0	0.9	2.0	2.9	8.3	10.8	8.0	12.7	320	26.3	30.4	2.47	1.31	26.0
WHCB	C	3	61.1	80.3	0.5	0.0	0.0	0.0	0.4	0.4	9.6	9.3	8.2	10.7	293	36.2	27.2	2.64	1.30	19.0
	Crop Year Average																			
WHCB	2019	88	60.5	79.6	0.8	0.0	0.0	0.1	1.2	1.2	9.1	10.0			310	31.5	20.5	2.53	1.28	23.3
WHCB	2018	128	61.2	80.5	0.5	0.0	0.0	0.1	0.8	0.9	8.1	9.0			316	32.8	27.9	2.62	1.29	15.8
HRW	NC	30	62.3	81.9	0.5	0.0	0.0	0.0	0.5	0.5	9.8	12.0	10.1	14.8	361	36.2	62.6	2.83	1.34	29.2
HRW	NE	30	63.3	83.2	0.3	0.0	0.0	0.0	0.4	0.4	9.3	10.7	9.4	12.4	337	36.7	62.9	2.90	1.29	23.2
HRW	C	12	62.8	82.6	0.5	0.0	0.0	0.0	0.5	0.5	9.6	12.0	8.4	13.9	325	36.2	63.5	2.87	1.38	28.4
HRW	SE	14	61.9	81.4	0.2	0.0	0.0	0.0	0.5	0.5	9.2	11.7	10.5	13.1	381	35.7	69.8	2.91	1.47	26.7
	Crop Year Average																			
HRW	2019	86	62.7	82.4	0.4	0.0	0.0	0.0	0.4	0.5	9.5	11.5			350	36.3	64.0	2.87	1.35	26.6
HRW	2018	112	62.9	82.7	0.3	0.0	0.0	0.0	0.5	0.5	8.3	11.1			365	36.7	65.3	2.92	1.38	25.1
HRS	NC	19	63.2	83.1	0.5	0.0	0.0	0.0	0.8	0.8	9.5	14.5	12.5	16.2	348	35.5	64.4	2.87	1.60	38.1
HRS	NE	12	62.8	82.6	0.3	0.0	0.0	0.1	0.6	0.6	8.6	14.6	12.9	15.7	398	28.4	72.2	2.66	1.54	35.3
HRS	C	3	62.4	82.1	0.4	0.0	1.1	0.0	0.3	1.4	9.5	14.7	13.7	16.0	356	37.9	59.1	2.95	1.51	40.1
HRS	SE	10	62.8	82.5	0.3	0.0	0.0	0.1	0.7	0.8	11.0	14.8	13.5	15.5	414	33.4	73.4	2.83	1.68	36.6
	Crop Year Average																			
HRS	2019	44	62.9	82.7	0.4	0.0	0.1	0.1	0.7	0.8	9.6	14.6			378	33.3	68.2	2.81	1.60	37.1
HRS	2018	95	62.6	82.3	0.4	0.0	0.0	0.0	0.8	0.8	8.7	14.1			386	32.3	72.2	2.77	1.56	35.0

Distributions

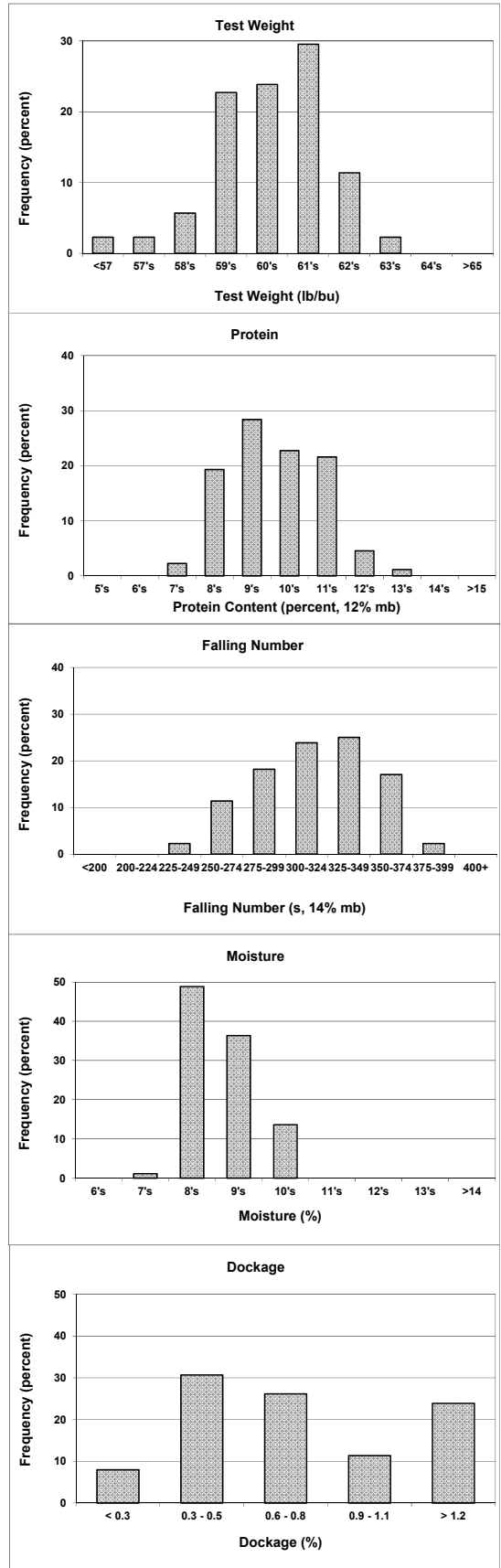
SOFT WHITE WHEAT

329 SAMPLES



WHITE CLUB WHEAT

88 SAMPLE



Prepared by: Wheat Marketing Center, Portland, Oregon