

San Joaquin Valley, California DURUM

2017 CROP QUALITY

Madera, Fresno, Kings, Tulare, and Kern counties of California

Milling, Semolina, and Pasta Characteristics of Durum Varieties¹

	Desert King HP	Fortissimo	Miwok	Platinum	Volante
WHEAT	'17	'17	'17	'17	'17
Protein (12% MB)	13.7	11.8	12.9	11.4	11.9
Ash (12% MB)	1.77	1.95	1.84	1.85	1.77
Moisture	8.5	8.7	7.3	7.0	7.4
Falling Number (sec)	535	395	559	499	500
Micro Sedimentation (CC)	53	45	37	49	49
Test Weight					
lb/bu	59.8	63.1	63.6	63.9	62.4
kg/hl	77.9	82.1	82.8	83.2	81.2
1000 Kernel Weight (g)	41.1	45.7	52.4	49.1	51.1
Kernel Size Distribution					
Large/Medium/Small	83/17/0	91/9/0	98/2/0	95/5/0	93/7/0
SEMOLINA					
Lab Mill Extraction (%)	72.8	73.5	77.3	76.3	74.9
Semolina Extraction (%)	69.1	69.2	73.5	71.7	70.6
Protein (14% MB)	12.7	10.7	11.9	10.2	11.0
Ash (14% MB)	0.85	0.78	0.81	0.84	0.81
Specks (no/10 sp in)	27	30	27	37	27
Wet Gluten (14% MB)	33.0	27.8	33.6	26.6	29.5
Gluten Index	69	52	17	82	40
Color 'b' value	29	29	26	29	30
MIXOGRAPH					
Absorption (%)	62.6	59.6	61.5	58.9	60.1
Peak Time (min)	3.3	3.5	2.5	4.0	3.0
Peak Height (mu)	57.0	44.0	50.0	50.0	46.0
MT Score (1-8)	8	5	5	8	5
ALVEOGRAPH					
P (mm)	104	88	82	106	79
L (mm)	67	29	51	64	58
P/L Ratio	1.5	3.0	1.6	1.7	1.4
W (10-4 joules)	281	115	170	275	186
PASTA					
Color L*	57.7	58.4	57.8	56.7	57.6
Color b*	42.0	43.3	41.5	40.6	40.9
Color Score	9.5	10.0	9.5	9.0	9.0
Cooked weight (gm)	29.2	29.8	29.7	30.0	29.6
Cooking Loss (%)	5.2	6.0	5.6	6.0	6.0
Cooked Firmness (g cm) ²	5.4	4.6	5.1	4.1	5.1

Pasta and semolina color - Minolta Chromameter Model CR-200. Weather, soils, and cultural practices can influence the quality of all varieties between years and of particular lots of any one variety. Wheat and semolina protein - Leco Combustion Nitrogen Analyzer Model TruSpec. ¹2017 samples are milled using a modified Buhler lab mill with identical settings and equipped with Miag laboratory purifiers at North Dakota State University Durum Wheat/Pasta Quality Lab in Fargo, North Dakota. ²Pasta Firmness is determined using Stable Micro Systems TA.XT2 Texture Analyzer with a new pasta blade. Results cannot be compared with previous years since they were tested using different blades.