

# San Joaquin Valley, California DURUM

## 2018 CROP QUALITY

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

### Milling, Semolina, and Pasta Characteristics of Durum Varieties

WHEAT	Desert King	Desert King HP	Fortissimo	Miwok	Platinum
Protein (12% MB)	14.2	13.8	13.7	11.4	10.4
Ash (12% MB)	1.85	1.70	1.80	1.65	1.80
Moisture	7.1	7.1	7.0	7.3	6.5
Falling Number (sec)	637	627	493	487	535
Micro Sedimentation (CC)	67	61	60	49	50
<b>Test Weight</b>					
lb/bu	62.3	62.6	62.2	64.3	64.2
kg/hl	81.1	81.5	81.0	83.7	83.6
1000 Kernel Weight (g)	43.9	45.7	47.4	51.7	40.9
<b>Kernel Size Distribution</b>					
Large/Medium/Small	88/12/0	91/9/0	91/9/0	94/6/0	85/15/0
<b>SEMOLINA</b>					
Lab Mill Extraction (%)	75.8	76.9	75.1	79.3	75.9
Semolina Extraction (%)	71.3	72.6	70.3	73.8	70.9
Protein (14% MB)	13.1	12.8	12.6	10.3	8.6
Ash (14% MB)	0.80	0.79	0.80	0.87	0.91
Specks (no/10 sp in)	26	20	22	23	25
Wet Gluten (14% MB)	33.2	33.9	32.4	26.0	27.1
Gluten Index	79	69	36	52	94
Color b*	28	28	30	26	30
<b>MIXOGRAPH</b>					
Absorption%	63.2	62.6	62.6	58.3	60.5
Peak Time (min)	3.5	2.9	2.5	3.4	3.8
Peak Height (mu)	5.8	6.1	5.1	4.3	5.1
MT Score (1-8)	8	8	6	7	8
<b>ALVEOGRAPH</b>					
P (mm)	111	112	66	68	86
L (mm)	83	69	65	46	68
P/L Ratio	1.3	1.7	1.1	1.5	1.3
W (10 <sup>-4</sup> Joules)	282.0	248.0	124.0	107.5	196.0
<b>PASTA</b>					
Color L*	57.3	59.0	59.7	60.9	57.9
a*	0.3	0.3	0.4	0.5	1.0
b*	41.9	41.9	44.0	39.3	39.8
Color Score	9.5	9.5	10.3	9.3	8.8
Cooked weight (gm)	29.3	29.5	30.5	29.7	29.6
Cooking Loss (%)	5.8	5.6	5.7	6.5	6.5
Cooked Firmness (g cm)	7.2	7.0	5.9	5.2	5.5

Pasta and semolina color - Minolta Chromameter Model CR-200. Wheater, 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. **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.**

# San Joaquin Valley, California DURUM

## 2018 CROP QUALITY

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

### Milling, Semolina, and Pasta Characteristics of Durum Varieties

WHEAT	Shasta	Tiburon	Volante	Westmore HP
Protein (12% MB)	12.1	11.5	13.3	11.7
Ash (12% MB)	1.61	1.69	1.59	1.63
Moisture	7.3	7.4	7.3	7.3
Falling Number (sec)	693	506	598	722
Micro Sedimentation (CC)	60	53	60	61
<b>Test Weight</b>				
lb/bu	65.4	63.2	63.7	63.2
kg/hl	85.1	82.3	82.9	82.3
1000 Kernel Weight (g)	57.7	53.9	56.0	40.1
<b>Kernel Size Distribution</b>				
Large/Medium/Small	96/4/0	97/3/0	95/5/0	81/19/0
<b>SEMOLINA</b>				
Lab Mill Extraction (%)	77.9	76.2	77.4	74.9
Semolina Extraction (%)	72.7	72.4	72.3	70.7
Protein (14% MB)	11.0	10.4	12.1	10.6
Ash (14% MB)	0.77	0.93	0.76	0.95
Specks (no/10 sp in)	29	17	23	20
Wet Gluten (14% MB)	28.0	25.8	32.1	28.2
Gluten Index	83	78	43	79
Color b*	26	29	29	30
<b>MIXOGRAPH</b>				
Absorption%	60.0	59.0	61.6	60.3
Peak Time (min)	3.3	4.0	2.8	3.5
Peak Height (mu)	5.1	4.2	5.2	4.8
MT Score (1-8)	8	7	7	6
<b>ALVEOGRAPH</b>				
P (mm)	108	108	75	112
L (mm)	39	36	75	54
P/L Ratio	2.8	3.0	1.0	2.1
W (10 <sup>-4</sup> Joules)	167.0	157.0	150.0	203.0
<b>PASTA</b>				
Color L*	58.7	59.4	58.2	60.2
a*	0.5	0.6	0.6	0.6
b*	38.3	41.7	41.3	43.2
Color Score	8.5	9.5	9.5	10.5
Cooked weight (gm)	28.7	29.8	30.0	29.2
Cooking Loss (%)	6.6	6.6	5.5	5.3
Cooked Firmness (g cm)	5.3	4.9	6.5	6.4

Pasta and semolina color - Minolta Chromameter Model CR-200. Wheater, 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. **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.**