2018 HARD WHITE—TORTILLA QUALITY

	Patwin 515		Patwin 515 HP
WHEAT	**Sacramento Valley**	**San Joaquin Valley**	**Sacramento Valley**
DOUGH EVALUATION			
Absorption (%)	57.7	58.3	58.8
Mix Time (min)	5.3	5.3	5.5
Smoothness (1-5)	2	2	2
Softness (1-5)	2	2	2
Extensibility (1-5)	4	4	4
Force to Extend (1-5)	2	2	2
Press Rating (1-5)	2	2	2
TORTILLA EVALUATION			
Moisture (%)	31.0	31.7	30.9
Weight (g)	38.0	37.4	37.4
Diameter (mm)	188.4	194.5	188.9
Thickness (mm)	2.1	2.0	2.1
Sp. Volume (cm^3)	1.6	1.6	1.5
Lightness (L-value)	84.4	85.3	85.7
TEXTURE PROFILE			
DAY 1			
Force (N)	5.7	5.7	5.8
Distance (mm)	19.9	19.2	18.7
Work (N.mm)	84.4	81.8	81.3
Day 16			
Force (N)	6.0	5.8	5.7
Distance (mm)	12.4	11.2	11.9
Work (N.mm)	62.4	46.8	48.9
ROLLABILITY SCORES			
Day 1	5	5	5
Day 16	4	4	4
Diameter (mm)	188.4	194.5	188.9
Rating	Good	Good	Good

INTERPRETATION OF RESULTS

Smoothness (1-5): 1 = Smooth, 5 = very rough; Softness (1-5): 1 = very soft, 5 = very hard; Force to extend (1-5): 1 = less force, 5 = extreme force; Extensibility (1-5): 1 = breaks immediately, 5 = extends readily; Press Rating (1-5): 1 = less force, 5 = extreme force

Force, distance, and work is related to tortilla rollability. Tortilla that has good rollability is less prone to break when rolled. Tortilla with high force (N), distance, and work correlates well with good tortilla quality.

Diameter ≥ 165 mm is preferred, L-value is positively correlated with opacity.

Rollability Scores: 1 = easily break when rolled, 5 = no breaking when rolled
Good = rollability score > 3 on day 16, ≥165 mm; Fair = rollability score > 3 on day 16, 157-164 mm; Poor = rollability score < 3 on day 16, any diameter

2018 HARD RED—TORTILLA QUALITY

WHEAT	Summit 515 Sacramento Valley	Summit 515 San Joaquin Valley	WB 9229 Sacramento Valley	WB 9229 San Joaquin Valley	WB 9350 San Joaquin Valley	Cal Rojo Sacramento Valley	Joaquin Oro San Joaquin Valley
DOUGH EVALUATION							
Absorption (%)	59.1	58.6	60.0	61.0	56.8	53.9	61.2
Mix Time (min)	5.9	6.2	7.3	7.5	10.0	7.0	5.9
Smoothness (1-5)	2	2	3	4	5	3	2
Softness (1-5)	2	2	4	4	4	3	2
Extensibility (1-5)	3	3	2	3	2	2	3
Force to Extend (1-5)	2	2	3	4	4	3	2
Press Rating (1-5)	2	2	3	3	4	3	3
TORTILLA EVALUATION							
Moisture (%)	32.9	32.5	32.5	32.4	29.0	29.2	33.4
Weight (g)	36.9	37.4	37.8	37.3	39.0	38.1	36.2
Diameter (mm)	191.6	190.6	181.1	192.8	182.6	172.2	193.9
Thickness (mm)	1.8	1.8	2.0	1.8	1.9	2.3	1.6
Sp. Volume (cm^3)	1.4	1.4	1.4	1.4	1.2	1.4	1.3
Lightness (L-value)	83.0	83.6	81.5	82.9	83.8	83.5	83.0
TEXTURE PROFILE							
DAY 1							
Force (N)	7.2	6.5	7.4	7.0	9.2	8.0	7.4
Distance (mm)	21.0	18.8	24.4	24.8	25.1	20.9	23.3
Work (N.mm)	101.8	86.5	141.2	131.8	168.2	121.0	121.4
Day 16							
Force (N)	6.1	5.9	6.7	6.0	8.4	6.7	6.4
Distance (mm)	10.8	10.7	14.1	11.8	12.5	14.2	11.4
Work (N.mm)	52.4	48.9	78.7	55.0	74.1	72.5	50.3
ROLLABILITY SCORES							
Day 1	5	5	5	5	5	5	5
Day 16	5	5	5	5	5	5	5
Diameter (mm)	191.6	190.6	181.1	192.8	182.6	172.2	193.9
Rating	Good	Good	Good	Good	Good	Good	Good

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