2017 HARD WHITE—TORTILLA QUALITY

WHEAT	Patwin 515 Sacramento Valley	WB 7566 Sacramento Valley	Blanca Grande 515 San Joaquin Valley
DOUGH EVALUATION			
Absorption (%)	57.9	57.9	57.5
Mix Time (min)	9.0	8.0	8.0
Smoothness (1-5)	3	2	2
Softness (1-5)	3	2	3
Extensibility (1-5)	1	2	1
Force to Extend (1-5)	2	2	2
Press Rating (1-5)	1	2	1
TORTILLA EVALUATION			
Moisture (%)	32.3	33.5	33.8
Weight (g)	37.5	38.2	37.6
Diameter (mm)	176.2	156.3	169.3
Thickness (mm)	2.2	2.9	2.7
Sp. Volume (cm^3)	1.4	1.4	1.6
Lightness (L-value)	84.3	84.8	84.3
TEXTURE PROFILE			
DAY 1			
Force (N)	7.2	7.1	8.0
Distance (mm)	19.4	18.8	21.2
Work (N.mm)	86.6	89.0	115.2
Day 16			
Force (N)	5.1	6.5	7.1
Distance (mm)	12.0	11.6	14.6
Work (N.mm)	46.2	61.9	74.0
ROLLABILITY SCORES			
Day 1	5	5	5
Day 16	2	1	4
Diameter (mm)	176.2	156.3	169.3
Rating	**Poor**	**Poor**	**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

2017 HARD RED—TORTILLA QUALITY

WHEAT	Cal Rojo		Summit 515		WB 9229	
	Sacramento Valley	San Joaquin Valley	Sacramento Valley	San Joaquin Valley	Sacramento Valley	San Joaquin Valley
DOUGH EVALUATION						
Absorption (%)	52.5	54.9	59.2	58.6	59.9	60.5
Mix Time (min)	11.0	8.7	7.3	9.3	8.7	8.6
Smoothness (1-5)	3	3	2	4	3	3
Softness (1-5)	3	3	2	3	3	3
Extensibility (1-5)	2	2	3	1	1	1
Force to Extend (1-5)	3	3	3	2	2	2
Press Rating (1-5)	2	2	3	1	1	1
TORTILLA EVALUATION						
Moisture (%)	28.0	32.0	33.7	30.8	31.9	32.4
Weight (g)	38.3	38.6	38.8	37.8	37.6	37.5
Diameter (mm)	172.2	163.9	158.1	171.9	170.6	173.5
Thickness (mm)	2.8	2.6	2.7	2.3	2.4	2.3
Sp. Volume (cm³)	1.7	1.4	1.3	1.4	1.5	1.4
Lightness (L-value)	84.8	84.5	83.7	84.4	82.2	83.4
TEXTURE PROFILE						
DAY 1						
Force (N)	5.8	8.3	6.0	8.2	7.7	7.8
Distance (mm)	13.1	16.9	16.6	19.7	21.3	21.9
Work (N.mm)	65.4	120.5	79.0	108.9	108.5	117.5
Day 16						
Force (N)	4.0	6.9	4.5	6.0	6.4	6.4
Distance (mm)	8.3	12.4	12.0	11.8	13.3	13.7
Work (N.mm)	40.0	74.8	49.4	57.8	62.1	64.9
ROLLABILITY SCORES						
Day 1	5	5	5	5	5	5
Day 16	1	3	3	5	4	5
Diameter (mm)	172.2	163.9	158.1	171.9	170.6	173.5
Rating	**Poor**	**Fair**	**Fair**	**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

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2017 HARD RED—TORTILLA QUALITY

WHEAT	Joaquin Oro San Joaquin Valley	WB 9112 San Joaquin Valley	Triple IV Sacramento Valley	WB Patron Sacramento Valley	San Joaquin Valley
DOUGH EVALUATION					
Absorption (%)	61.8	61.8	57.8	57.8	57.8
Mix Time (min)	7.5	8.0	8.0	8.0	7.5
Smoothness (1-5)	2	2	2	2	2
Softness (1-5)	2	2	2	2	2
Extensibility (1-5)	1	2	4	3	1
Force to Extend (1-5)	3	3	3	3	4
Press Rating (1-5)	1	2	4	3	1
TORTILLA EVALUATION					
Moisture (%)	30.6	33.1	35.7	31.1	30.2
Weight (g)	37.4	37.8	39.3	38.1	36.7
Diameter (mm)	180.5	172.5	155.4	165.9	184.1
Thickness (mm)	2.2	2.3	2.9	2.7	2.3
Sp. Volume (cm^3)	1.5	1.4	1.4	1.5	1.6
Lightness (L-value)	84.8	84.6	84.3	85.2	85.5
TEXTURE PROFILE					
DAY 1					
Force (N)	8.9	7.5	7.1	5.6	6.2
Distance (mm)	21.6	21.5	22.5	18.0	18.5
Work (N.mm)	143.4	103.1	107.7	82.9	72.8
Day 16					
Force (N)	7.9	6.3	6.2	3.7	5.0
Distance (mm)	13.8	11.6	19.3	10.1	10.7
Work (N.mm)	74.6	54.0	79.6	36.9	39.1
ROLLABILITY SCORES					
Day 1	5	5	5	5	5
Day 16	5	5	4	5	4
Diameter (mm)	180.5	172.5	155.4	165.9	184.1
Rating	**Good**	**Good**	**Fair**	**Good**	**Good**

INTERPRETATION OF RESULTS

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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