

## 2019 COLUMBIA BASIN ONION CULTIVAR DEMONSTRATION RESULTS<sup>1</sup>

Seed Company & Cultivar	Usable <sup>2</sup> Yield T/A	Bulb Size and Defects <sup>3</sup> Yield by weight and (% of total bulb count)					Culls T/A (%)	Bulb Count <sup>4</sup>	Powdery Mildew <sup>5</sup> 0-4	Tops Down <sup>6</sup> %
		Pre-pack (<2.25") T/A (%)	Medium (2.25-3") T/A (%)	Jumbo (3-4") T/A (%)	Colossal (>4") T/A (%)					
<b>American Takii</b>										
Centerstone	41.5	0.1 (1)	0.6 (4)	36.7 (81)	4.1 (6)	3.4 (8)	44	2.0	10	
Frontier	27.5	0.4 (7)	5.9 (29)	21.2 (58)	0.0 (0)	1.6 (6)	44	1.7	75	
Grand Perfection	50.1	0.3 (3)	0.8 (3)	18.1 (36)	30.9 (41)	8.0 (17)	45	1.3	5	
Highlander	43.5	0.2 (3)	4.7 (19)	33.3 (68)	5.4 (7)	2.1 (3)	51		98	
Milestone	33.8	0.1 (1)	4.0 (20)	29.8 (75)	0.0 (0)	1.1 (5)	43	2.3	35	
Ridgeline	49.6	0.3 (2)	6.1 (21)	38.3 (69)	4.9 (6)	1.1 (2)	55	1.7	87	
Traverse	44.1	0.1 (2)	2.9 (14)	35.3 (75)	5.8 (9)	0.0 (0)	47	2.0	55	
Trekker	32.6	0.4 (4)	9.7 (37)	22.4 (58)	0.0 (0)	0.6 (2)	48	2.0	88	
<b>Bejo Seeds</b>										
Bridewhite	53.4	0.2 (3)	1.8 (8)	36.6 (67)	14.8 (19)	1.3 (3)	52	1.3	7	
Crockett	47.1	0.2 (2)	3.4 (13)	42.6 (77)	0.9 (1)	4.4 (7)	54	2.0	8	
Gunnison	42.5	0.3 (4)	4.9 (20)	37.4 (73)	0.0 (0)	0.9 (2)	53	2.7	70	
Hamilton	42.3	0.5 (3)	3.0 (12)	29.2 (60)	9.6 (13)	6.1 (12)	48	1.7	5	
Legend	48.6	0.2 (3)	3.3 (15)	34.1 (66)	11.0 (14)	1.7 (2)	50	1.3	18	
Red Mountain	33.1	0.2 (3)	5.0 (21)	27.3 (66)	0.6 (1)	3.2 (10)	50	2.0	7	
Redwing	43.9	0.1 (1)	3.1 (12)	40.8 (88)	0.0 (0)	0.0 (0)	51	1.7	5	
Tamara	36.7	0.1 (2)	4.3 (19)	31.8 (79)	0.5 (1)	0.0 (0)	43	1.3	43	
<b>Crookham Co.</b>										
Caldwell	52.1	0.2 (4)	1.2 (6)	23.8 (46)	26.8 (39)	1.7 (5)	48	1.3	8	
Caliber	46.8	0.2 (4)	1.5 (8)	19.2 (41)	25.8 (40)	1.4 (7)	39	4.0	5	
Oracle	62.9	0.1 (2)	0.3 (1)	19.7 (37)	42.9 (53)	2.5 (7)	45	1.3	8	
Purple Haze	34.0	0.4 (4)	7.8 (34)	23.0 (56)	2.7 (4)	0.1 (1)	47	2.0	12	
Scorpion	42.3	0.3 (3)	6.3 (25)	34.2 (71)	1.5 (2)	0.0 (0)	49	1.3	53	
Scout	58.8	0.1 (2)	1.3 (5)	19.6 (35)	37.9 (46)	6.4 (12)	48	3.0	20	
Trident	53.2	0.2 (3)	3.4 (11)	33.2 (64)	16.4 (22)	0.0 (0)	48	2.0	20	
White Cap	56.6	0.1 (4)	2.0 (9)	34.5 (61)	20.0 (25)	0.5 (1)	51	1.7	12	
<b>Enza Zaden</b>										
Elyse	52.1	0.1 (1)	1.8 (8)	18.0 (38)	32.2 (38)	12.5 (16)	50	1.7	80	
Monastrell	33.9	0.2 (2)	2.9 (15)	15.6 (38)	15.2 (25)	10.8 (21)	45	2.3	52	

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		Pre-pack (<2.25") T/A (%)	Medium (2.25-3") T/A (%)	Jumbo (3-4") T/A (%)	Colossal (>4") T/A (%)					
<b>Nunhems-BASF</b>										
Airoso	48.2	0.3 (4)	4.3 (16)	41.1 (76)	2.5 (3)	0.5 (1)	54	1.3	22	
Arcero	57.1	0.1 (2)	0.5 (2)	36.4 (66)	20.1 (26)	0.9 (4)	48	3.0	10	
Granero	52.4	0.2 (3)	3.4 (12)	37.3 (66)	11.4 (14)	1.2 (5)	50	2.3	15	
Joaquin	50.9	0.1 (1)	1.9 (8)	26.1 (48)	22.8 (28)	6.2 (15)	48	1.7	8	
Marengo	38.4	0.2 (3)	1.8 (9)	34.5 (78)	1.9 (3)	3.3 (8)	47	2.3	25	
Montero	60.2	0.0 (0)	1.8 (6)	43.2 (72)	15.2 (20)	1.3 (2)	58	1.7	57	
Oloroso	41.3	0.1 (4)	1.9 (11)	29.0 (58)	10.2 (16)	2.3 (12)	45	1.7	7	
Ranchero	60.0	0.1 (4)	0.6 (3)	29.5 (55)	29.6 (36)	1.7 (2)	48	1.0	7	
Vaquero	67.2	0.1 (1)	2.7 (10)	27.6 (48)	36.8 (37)	1.8 (3)	57	1.0	20	
<b>Sakata Seed</b>										
Aruba	53.3	0.1 (1)	1.6 (8)	20.6 (40)	33.0 (43)	6.0 (8)	46	1.0	18	
Dulce Reina	55.3	0.4 (5)	1.1 (6)	16.9 (34)	36.8 (47)	4.5 (8)	43	1.0	13	
Ovation	43.7	0.4 (6)	1.2 (7)	12.8 (32)	29.3 (42)	7.5 (13)	39	2.7	13	
Spanish Medallion	63.4	0.1 (1)	1.2 (5)	24.0 (45)	38.2 (43)	3.6 (6)	50	2.0	47	
Yosemite	51.2	0.1 (1)	2.1 (9)	21.6 (39)	27.4 (31)	13.2 (20)	51	2.0	40	
Yukon	57.7	0.0 (0)	1.8 (7)	22.5 (44)	33.4 (40)	7.8 (9)	49	1.7	12	
<b>Seminis Veg. Seeds</b>										
16000	59.7	0.0 (0)	2.0 (9)	23.7 (43)	34.0 (38)	6.7 (10)	51	1.7	13	
Red Nugent	41.7	0.5 (5)	2.9 (12)	22.4 (45)	15.9 (20)	13.8 (18)	50	1.7	43	
SV4058NV	58.2	0.1 (1)	1.7 (7)	32.6 (55)	23.8 (28)	5.3 (9)	54	1.0	5	
SV4643NT	40.8	0.1 (2)	2.4 (10)	27.6 (59)	10.7 (14)	10.2 (16)	51	1.3	32	
SV6672NW	51.3	0.1 (1)	1.5 (5)	24.9 (46)	24.8 (30)	6.6 (17)	51	1.7	13	
Tucannon	54.3	0.2 (1)	1.5 (7)	36.3 (67)	16.3 (20)	1.9 (5)	50	3.7	15	
<b>AVERAGES</b>	<b>48.8</b>	<b>0.2 (3)</b>	<b>2.8 (12)</b>	<b>28.9 (57)</b>	<b>21.1 (21)</b>	<b>3.9 (7)</b>	<b>49</b>	<b>1.9</b>	<b>28</b>	

<sup>1</sup> Yield data were collected from a 5-ft section of each plot and are averaged from three replicate plots.

<sup>2</sup> The usable yield is the cumulative yield of all bulb size categories in tons per acre and does not include culls.

<sup>3</sup> Yield for each size category and culls is expressed in tons per acre AND as a percentage of the total bulb count (shown in parenthesis). Defects include double or split bulbs, rotten bulbs, and bulbs with seed stalks.

<sup>4</sup> The bulb count is the number of bulbs from a 5-ft section of each plot and is averaged from three replicate plots.

<sup>5</sup> Severity of powdery mildew symptoms on foliage; 0=no symptoms, 1=mild symptoms on some plants, 4=severe symptoms on most plants.

<sup>6</sup> The percentage of the tops estimated to have fallen as of August 16, shown as averages from three replicate plots.

## **Onion Cultivar Trial Overview:**

The onion cultivar trial was planted on April 10, 2019 with a Stanhay vacuum planter on 80-in beds with four double rows per bed and 4-in in-row seed spacing. Each cultivar was planted in three replicated plots. Plots were 40-in wide by 30-ft long with two double rows. The drip irrigated field was managed by L & L Ag. Production and was located northwest of Connell, Washington. Tops down (maturity) and severity of powdery mildew (foliar symptoms) were evaluated for each plot on August 16. The onions were lifted on September 2. A 5-ft section of each plot was topped on September 12 and hand-harvested on September 13.

## **Participating Companies:**

American Takii, Inc., 301 Natividad Rd., Salinas, CA 93906

Bejo Seeds, Inc., 1972 Silver Spur Place, Oceano, CA 93445

Crookham Company, P.O. Box 520, Caldwell, ID 83606.

Enza Zaden USA, Inc., 7 Harris Place, Salinas, CA 93901

Nunhems USA, 8850 59th Ave. NE, Brooks, OR 97305

Sakata Seed America, Inc., New Mexico Station, P.O. Drawer F, Messilla, NM 88046

Seminis Vegetable Seeds, 32537 Apple Valley Rd, Parma, ID 83660

## **Special thanks for the cooperation and assistance of:**

HOST: L & L Ag. Production

TECHNICAL ASSISTANCE: Jennifer Darner and Don Kinion, *WSU Extension*

PLANTING: Jim Christopherson, *Bejo Seeds*

HARVEST: Bob Mittelstadt and Nick Webb, *Clearwater Supply*; Jason Turner, *Logan-Zenner*; Patrick Ross, *Kiethly Williams*; Cory Marshburn, *Seedway*; Kala Null, Cavan Waker, and Andrea Vallejo, *WSU Extension*

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