



AC01151-5W

Pedigree: COA96142-7 x NDA2031-2

Developers: Colorado State University and
USDA-ARS

Plant Variety Protection:

Seed Availability: San Luis Valley Research Center

Incentives for Production

- ★ High yield potential
- ★ Processing potential
- ★ Attractive tuber type

General Characteristics

Usage: Chipping

Plant: Medium vine size, semi-erect plants with purple flowers

Maturity: Medium

Tubers: Round tubers with white skin and white flesh. Tubers are resistant to second growth, growth crack and shatter bruise.

Yield Potential: High (avg. 465 cwt/acre) and a high percentage of US No. 1 tubers (79%)

Specific Gravity: High (1.089)

Detailed data summary for AC01151-5W.

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	6	465	402-557	
Yield US #1 (Cwt/A)	6	368	303-430	
% US #1	6	79	67-90	
Yield >10 oz (Cwt/A)	6	68	53-115	
Yield <4 oz (Cwt/A)	6	85	45-134	
% External Defects ¹	6	2.6	0.6-7.4	
% Hollow Heart ²	6	0.2	0.0-0.6	
% Stand	6	97	96-99	
Emergence Uniformity	6	3.3	2.8-3.5	
Vine Vigor ³	6	3.0	2.8-3.5	
Stems/Plant	6	3.5	2.3-4.8	
Vine Size ⁴	6	3.4	3.0-3.8	
Vine Type ⁵	6	3.0	3.0-3.0	
Vine Maturity ⁶	6	3.1	3.0-3.3	
Blackspot ⁷	Bud End	15	4.5	3.2-5.0
	Stem End	15	3.2	1.3-5.0
	Average	15	3.9	
Weight Loss ⁸	15	2.5	1.6-4.4	
Dormancy ⁹	15	96	70-127	
Enzymatic Browning ¹⁰	15	1.9	1.2-3.6	
Specific Gravity	16	1.089	1.074-1.103	
Chip Color ¹¹	40	16	4.4	3.0-5.0
	40R	16	3.6	2.5-4.5
	50	16	2.5	1.0-4.0
	50R	16	2.4	1.0-3.5

Refer to footnotes on next page.

Footnotes for Table on previous page:

- ¹Percent external defects based on the proportion of the total sample weight with significant defects.
- ²Percent hollow heart calculated as follows: (Weight of tubers >10 ounces with defects/total sample weight) x 100.
- ³Vine vigor is rated on a 1 to 5 scale, with 5 indicating very vigorous vines.
- ⁴Vine size is rated on a 1 to 5 scale, with 5 indicating very large vines.
- ⁵Vine type is rated on a 1 to 5 scale, with 5 indicating very upright vines.
- ⁶Vine maturity is rated on the following basis: 1=very early; 2=early; 3=medium; 4=late; and 5=very late.
- ⁷Blackspot was rated on a 1 to 5 scale, with 5 indicating no discoloration.
- ⁸Tubers were stored at 45F for approximately 3 months.
- ⁹Days from harvest to first visible growth. Tubers were stored at 45F.
- ¹⁰Degree of darkening rated at 60 minutes after slicing tubers lengthwise. Rated on a 1 to 5 scale, with 5 indicating no discoloration.
- ¹¹Chip color was rated using the Snack Food Association 1-5 scale. Ratings of ≤ 2.0 are acceptable. Reconditioned samples were stored at 60F for three weeks. Fry color was rated on a 0 to 4 scale, with 0 being the lightest or best color. Color ratings of ≤ 2.0 are acceptable.
- ¹²Fry texture was rated on a 1 to 5 scale, with 5 indicating the cooked flesh was dry and mealy and 1 representing a soggy, wet texture.