



**Crestone Russet (CO99053-3RU)**

**Pedigree:** AC91014-2RU x Silverton Russet

**Developer:** Colorado State University

**Plant Variety Protection:** Applied for

**Seed Availability:** San Luis Valley Research Center

**Incentives for Production**

- ★ Yield potential
- ★ High percentage of US #1 tubers
- ★ Processing potential
- ★ Resistant to internal and external grade defects

**General Characteristics**

**Usage:** Dual purpose with fresh and processing potential

**Plant:** Large vine size, semi-erect plants with white flowers

**Maturity:** Medium-late

**Tubers:** Long tubers with medium russet skin and white flesh. Tubers are resistant to hollow heart, second growth, blackspot bruise, and shatter bruise.

**Yield Potential:** High (avg. 501 cwt/acre) and a high percentage of US No. 1 tubers (89%)

**Specific Gravity:** High (avg. 1.089)

Detailed data summary for Crestone Russet.

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	7	501	454-559	
Yield US #1 (Cwt/A)	7	447	384-517	
% US #1	7	89	85-93	
Yield >10 oz (Cwt/A)	7	233	159-299	
Yield <4 oz (Cwt/A)	7	37	22-58	
% External Defects <sup>1</sup>	7	3.6	0.7-8.9	
% Hollow Heart <sup>2</sup>	7	0.7	0.0-2.9	
% Stand	7	99	95-100	
Emergence Uniformity	7	3.2	3.0-4.0	
Vine Vigor <sup>3</sup>	7	3.3	2.8-3.8	
Stems/Plant	7	3.9	2.5-5.2	
Vine Size <sup>4</sup>	7	4.0	3.8-4.3	
Vine Type <sup>5</sup>	7	3.1	2.8 3.8	
Vine Maturity <sup>6</sup>	7	3.3	3.0-4.0	
Blackspot <sup>7</sup>	Bud End	8	4.8	4.3-5.0
	Stem End	8	4.3	2.8-5.0
	Average	8	4.5	
Weight Loss <sup>8</sup>	8	2.7	1.2-7.6	
Dormancy <sup>9</sup>	8	84	54-132	
Enzymatic Browning <sup>10</sup>	8	4.0	3.2-4.6	
Specific Gravity	8	1.089	1.077-1.096	
Fry Color <sup>11</sup>	Harvest	8	1.0	0.0-2.0
	Storage	8	1.9	1.0-3.0
Fry Texture <sup>12</sup>	Harvest	8	3.4	3.0-4.0
	Storage	8	3.3	2.0-4.0

Refer to footnotes on next page.

**Footnotes for Table on previous page:**

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