



Rio Grande Russet (AC89536-5RU)

Pedigree: Butte x A8469-5

Developers: Colorado State University and
USDA-ARS

Plant Variety Protection: PVP No. 200500139

Seed Availability: Certified seed available from
producers in Colorado

Incentives for Production

- ★ High yield potential
- ★ High percentage of US No. 1 tubers
- ★ Attractive tuber type

General Characteristics

Usage: Fresh market

Plant: Large vine size, semi-erect plant with light purple flowers

Maturity: Medium

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

Yield Potential: High (533 cwt/acre) and a high percent of US No. 1 tubers (80 %)

Specific Gravity: Medium-high (1.087)

Detailed data summary for Rio Grande Russet.

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	22	533	367-683	
Yield US #1 (Cwt/A)	22	426	255-603	
% US #1	22	80	65-91	
Yield >10 oz (Cwt/A)	22	123	14-275	
Yield <4 oz (Cwt/A)	22	92	33-202	
% External Defects ¹	22	2.8	0.1-8.7	
% Hollow Heart ²	22	0.4	0.0-4.1	
% Stand	22	99	96-100	
Emergence Uniformity	22	3.5	3.0-4.0	
Vine Vigor ³	22	3.6	2.0-4.5	
Stems/Plant	22	3.4	2.0-4.8	
Vine Size ⁴	22	4.1	3.5-5.0	
Vine Type ⁵	22	3.1	3.0-3.5	
Vine Maturity ⁶	22	3.0	2.5 -3.5	
Blackspot ⁷	Bud End	31	4.8	4.1-5.0
	Stem End	31	4.6	3.0-5.0
	Average	31	4.7	
Weight Loss ⁸	31	3.8	1.5-7.1	
Dormancy ⁹	31	93	68-123	
Enzymatic Browning ¹⁰	31	3.9	3.0-5.0	
Specific Gravity	31	1.086	1.067-1.094	
Fry Color ¹¹	Harvest	31	2.3	1.0-4.0
	Storage	31	2.8	2.0-4.0
Fry Texture ¹²	Harvest	31	3.1	2.0-4.0
	Storage	31	3.0	2.0-4.0

Refer to footnotes on next page.

Footnotes for Table on previous page:

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