

Rocky Mountain Russet

Experimental Designation: CO05068-1RU

Parentage: Awn86514-2 x CO98009-3RU

Developer(s): Colorado State University

Plant Variety Protection: Applied for in 2021

Incentives for Production

- ★ High yield potential
- ★ High percentage of US #1 tubers
- ★ Disease resistance
- ★ Processing potential

General Characteristics

Usage: Dual purpose with fresh and processing potential.

Plant: Medium-large plant with white flowers

Vine Maturity: Medium-late (similar to Canela Russet).

Tubers: Oblong-long with a russet skin and white flesh. Tubers are resistant to hollow heart, second growth, growth crack, blackspot bruise, and shatter bruise.

Yield Potential: High (avg. 461 cwt/acre) and a high percentage of US No. 1 tubers (avg. 89%, 409 cwt/acre).

Specific Gravity: High (avg. 1.098).

Tuber Dormancy: 62 days after harvest @ 45F

Field Management

If cutting seed, pre-cut seed to a size of 2.5 to 3.0 oz and allow to suberize before planting.

To obtain maximum marketable size tubers, seed tubers should be planted at in-row spacing of 14 inches, with a row spacing of 34 inches.

Rocky Mountain Russet is very efficient in N utilization. Caution should be taken to avoid applying too much nitrogen to assure timely vine maturity and skin set after dessication.

The applied N rate should be between 160-170 lbs of N/acre. However, total available N (residual soil N +



Field Management (continued)

irrigation water N + applied N) should not exceed 200-220 lbs N/acre for optimum yield and tuber quality for commercial production. For seed production, applied N rate should be between 120-140 lbs of N/acre. However, total available N should not exceed 150-160 lbs N/acre. These recommendations do not include nitrogen mineralization from the previous crop stubble and from soil organic matter.

Apply about 40% of the required seasonal N pre-plant or at planting. The remaining seasonal N should be applied in split applications beginning at early tuber formation. Nitrogen fertilizer application should be completed early in the growing season for tuber growth and tuber maturation. For fresh market production, N fertilizer application should be completed by July 30, in the San Luis Valley.

The sufficiency level for petiole nitrate N concentration during the growing season should range from 25,000 to 26,000 ppm at tuber initiation, 23,000 to 24,000 ppm during tuber bulking, and between 20,000 to 21,000 ppm at tuber maturity.

Vines can be desiccated between 100-115 days after planting for commercial fresh market potatoes. Harvest should be between 115 to 130 days after planting.

A total of 16 inches of irrigation water for the growing season is sufficient, while maintaining soil water content above 65 to 70%.

Disease Considerations

Rocky Mountain Russet has resistance to PVY, *Verticillium* wilt, foliar early blight, and tuber soft rot. While susceptible to other primary potato diseases, Rocky Mountain Russet has not exhibited any serious disease susceptibilities.