EFFECT OF PHOSPHORUS FERTILIZER SOURCE ON PETIOLE PO$_4$-P CONCENTRATION
RESPONSE OF FORTRESS RUSSET TO PLANT POPULATION DENSITY (IN-ROW SEED SPACING)
Response of Fortress Russet to In-Row Seed Spacing – Total Yield
Effect of In-Row Seed Spacing on Marketable Tuber Yield of Fortress Russet

![Graph showing the effect of in-row seed spacing on marketable tuber yield.](image)
Effect of In-Row Seed Spacing on Medium Size (4-10 oz.) Tuber Yield of Fortress Russet

Medium Size Tuber Yield (cwt/acre)

- 10 in
- 12 in
- 14 in
- 16 in
FIELD MANAGEMENT OF
FORTRESS RUSSET

Seed Preparation
✓ Pre-cut seed to a size of 2.5 to 3.5 oz. and allow to suberize before planting

Seed Spacing
✓ Plant 14 inches within row spacing, and between row spacing of 34 inches

Nitrogen Requirement
✓ Available N Rate: 160-170 lb. N/A

Note: This recommendation does not include nitrate N mineralization from previous crop stubble and soil organic matter
Nitrogen Application Timing

- Pre-Plant N = 35-40% of the required seasonal N rate
- Apply the remaining N requirement in split applications during the growing season

In-Season Nitrogen Management

- Begin in-season N application after tuber formation
- Complete in-season N application by the end of July in the San Luis Valley. Finishing N application earlier in the season is preferred.
- Petiole nitrate N concentration should range from 18,000 ppm at 53 DAP, through 11,000 ppm at 65 DAP, to 5,000 ppm at 74 DAP.

Vine Kill

- Kill vines at 115 DAP to allow tubers to mature and to avoid tuber skinning and bruising at harvest
PINTO BEANS: AN ALTERNATIVE ROTATIONAL CROP IN THE SAN LUIS VALLEY
VARIETIES USED

CELRK

OTHELLO

CROISSANT

LONGS PEAK

CO91212-4

CO90848-14

LAPAZ

STAMPEDE