



AC05175-3P/Y

Pedigree: A99331-2R/Y x COA99261-1RY

Developers: Colorado State University and
USDA-ARS

Plant Variety Protection:

Seed Availability: San Luis Valley Research Center

Incentives for Production

- ★ Medium yield potential
- ★ Very early maturity
- ★ Resistant to internal and external grade defects

General Characteristics

Usage: Fresh market specialty

Plant: Small-medium vine size, semi-erect plants with dark purple flowers

Maturity: Very early

Tubers: Oval tubers with dark purple skin and yellow flesh. Tubers are resistant to blackspot bruise, growth crack, second growth and hollow heart.

Yield Potential: Medium (avg. 34; cwt/acre) and 66 % of US No. 1 tubers

Specific Gravity: Medium (1.072)

Detailed data summary for AC05175-3P/Y.

| Variable | # Trials | Mean | Range | |
|----------------------------------|----------|-------|-------------|---------|
| Total Yield (Cwt/A) | 5 | 329 | 267-389 | |
| Yield US #1 (Cwt/A) | 5 | 214 | 135-299 | |
| % US #1 | 5 | 64 | 48-81 | |
| Yield >10 oz (Cwt/A) | 5 | 15 | 4-43 | |
| Yield <4 oz (Cwt/A) | 5 | 115 | 69-171 | |
| % External Defects ¹ | 5 | 0.1 | 0.0-0.5 | |
| % Hollow Heart ² | 5 | 0.0 | 0.0-0.0 | |
| % Stand | 5 | 96 | 93-98 | |
| Emergence Uniformity | 5 | 3.3 | 3.0-3.8 | |
| Vine Vigor ³ | 5 | 2.8 | 2.5-3.0 | |
| Stems/Plant | 5 | 3.6 | 2.8-4.4 | |
| Vine Size ⁴ | 5 | 2.1 | 1.5-2.5 | |
| Vine Type ⁵ | 5 | 2.8 | 2.5-3.0 | |
| Vine Maturity ⁶ | 5 | 1.0 | 1.0-1.0 | |
| Blackspot ⁷ | Bud End | 6 | 4.9 | 4.6-5.0 |
| | Stem End | 6 | 4.6 | 4.1-5.0 |
| | Average | 6 | 4.8 | |
| Weight Loss ⁸ | 6 | 3.8 | 2.6-5.3 | |
| Dormancy ⁹ | 6 | 81 | 71-95 | |
| Enzymatic Browning ¹⁰ | 6 | 3.3 | 2.6-4.0 | |
| Specific Gravity | 6 | 1.072 | 1.068-1.074 | |
| Fry Color ¹¹ | Harvest | 6 | 1.0 | 0.0-2.0 |
| | Storage | 6 | 0.8 | 0.0-1.0 |
| Fry Texture ¹² | Harvest | 6 | 2.3 | 1.0-5.0 |
| | Storage | 6 | 2.3 | 1.0-5.0 |

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.