



### **Midnight Moon (AC99330-1P/Y)**

**Pedigree:** Inka Gold x A89655-5DY

**Developers:** Colorado State University and  
USDA-ARS

**Plant Variety Protection:** In process

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

### **Incentives for Production**

- ★ High yield potential
- ★ Attractive tuber type
- ★ Dark yellow flesh

### **General Characteristics**

**Usage:** Fresh market specialty

**Plant:** Medium vine size, semi-erect plant with blue flowers

**Maturity:** Medium

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

**Yield Potential:** High (avg. 495 cwt/acre) and 58% of US No. 1 tubers, small tubers size profile

**Specific Gravity:** Medium (1.082)

Detailed data summary for Midnight Moon.

| Variable                         | # Trials | Mean  | Range       |         |
|----------------------------------|----------|-------|-------------|---------|
| Total Yield (Cwt/A)              | 7        | 495   | 441-531     |         |
| Yield US #1 (Cwt/A)              | 7        | 288   | 208-376     |         |
| % US #1                          | 7        | 58    | 43-74       |         |
| Yield >10 oz (Cwt/A)             | 7        | 24    | 3-69        |         |
| Yield <4 oz (Cwt/A)              | 7        | 207   | 129-271     |         |
| % External Defects <sup>1</sup>  | 7        | 0.0   | 0.0-0.2     |         |
| % Hollow Heart <sup>2</sup>      | 7        | 0.2   | 0.0-0.6     |         |
| % Stand                          | 7        | 98    | 96-99       |         |
| Emergence Uniformity             | 7        | 3.2   | 2.8-3.8     |         |
| Vine Vigor <sup>3</sup>          | 7        | 3.7   | 3.0-4.5     |         |
| Stems/Plant                      | 7        | 4.9   | 3.0-6.7     |         |
| Vine Size <sup>4</sup>           | 7        | 3.4   | 2.8-4.0     |         |
| Vine Type <sup>5</sup>           | 7        | 2.5   | 2.0-3.0     |         |
| Vine Maturity <sup>6</sup>       | 7        | 2.9   | 2.0-3.0     |         |
| Blackspot <sup>7</sup>           | Bud End  | 8     | 4.7         | 4.0-5.0 |
|                                  | Stem End | 8     | 4.4         | 3.7-4.8 |
|                                  | Average  | 8     | 4.6         |         |
| Weight Loss <sup>8</sup>         | 8        | 3.3   | 1.4-5.0     |         |
| Dormancy <sup>9</sup>            | 8        | 60    | 49-66       |         |
| Enzymatic Browning <sup>10</sup> | 8        | 2.9   | 2.2-3.6     |         |
| Specific Gravity                 | 8        | 1.082 | 1.075-1.090 |         |
| Fry Color <sup>11</sup>          | Harvest  | 8     | 1.9         | 1.0-4.0 |
|                                  | Storage  | 8     | 3.1         | 3.0-4.0 |
| Fry Texture <sup>12</sup>        | Harvest  | 8     | 2.9         | 2.0-4.0 |
|                                  | Storage  | 8     | 3.1         | 3.0-4.0 |

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.