

New Mexico Onion Varieties



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During the months of June and July, New Mexico supplies more than 50 percent of onions consumed in the United States (USDA 2000). Each year, New Mexico grows 7,000 to 8,000 acres of onions, producing 160,000 to 180,000 tons at a value of \$40 million to \$55 million. The per acre yield averages 920 50-pound sacks per acre.

Acreage, per acre yield, total production, and total value for the New Mexico onion crop have increased over the last 20 years. This increase can be attributed in part to improved varieties and improved cultural practices. The continued growth of the New Mexico onion industry requires well-adapted, high yielding, high quality varieties and the proper cultural practices to grow those varieties. The current cultural practices for growing onions in New Mexico have been presented by Corgan and his coworkers (2000). This guide will review the current onion varieties being grown in New Mexico. It will be revised as new varieties are evaluated.

Growers in New Mexico harvest onions from May 20 to September 15. Because a single onion variety has a harvest window of 7 to 10 days, multiple varieties with different maturity dates must be grown. New Mexico grows three separate onion crops: fall-seeded, transplanted, and spring-seeded. The fall-seeded crop is planted from September 15 to October 15 and harvested May 15 to June 20. Early-planted, fall-seeded varieties must possess high levels of bolting resistance to prevent yield losses to premature seedstalk formation.

The transplanted crop is seeded from October 1 to 20 in southern New Mexico and from November 15 to 30 in Arizona or south Texas. Transplants are placed from February 1 to March 1 and harvested from June 20 to July 10.

The spring-seeded crop is planted January 15 to March 1 and harvested from July 5 to August 15.

Growers in Deming, Columbus, Hatch, and Uvas

areas plant their fall crop earlier and harvest each crop later than growers in the Las Cruces and Anthony areas.

Planting and harvest dates in this publication are for the Las Cruces area, so growers in other regions should adjust their planting and harvesting dates accordingly. Growers in eastern and northwestern New Mexico primarily plant a spring-seeded onion crop.

The desired characteristics of an onion variety grown in New Mexico vary depending upon the crop. However, all varieties must be well-adapted, be high yielding, possess moderate to high levels of pink root resistance, and possess high bulb quality.

Pink root resistance is necessary because most fields are infested with the organism causing pink root. Scale color for white varieties should be clear white, while scale color of red varieties should be dark red. Bulbs should possess multiple layers of scale that adhere to the bulb during grading. Early-planted, fall-seeded varieties must possess high levels of bolting resistance to prevent yield losses to premature seedstalk formation.

In the past, grano-shaped (top-shaped) onions were grown in New Mexico for the fall-planted crop, but round bulbs with less taper to the base currently are more desirable.

Short-day varieties grown for transplants must have a later maturity to produce large bulbs and also must possess some bolting resistance to prevent excessive bolting.

Fall-planted varieties grown as transplants mature one to two weeks later than when they are direct seeded. Spring-planted varieties grown as transplants mature one to two weeks earlier than when they are direct seeded.

In general, spring-planted varieties are more nearly round in shape, tend to have more scale, and tend to have a higher percentage of bulbs with single centers than fall-planted varieties.

FALL-PLANTED VARIETIES

BUFFALO

Maturity: Late May
Pink root resistance: Poor. Highly susceptible. Must be planted on pink root-free land.
Bolting resistance: Excellent
Bulb shape: Thick, flat
Bulb firmness: Good
Percentage of single-centered bulbs: Moderate
Scale: Excellent characteristics
Yield: Excellent

DAYBREAK

Maturity: Late May
Pink root resistance: Excellent
Bolting resistance: Good
Bulb shape: Top-shaped with strong taper. Some variability.
Bulb firmness: Fair
Percentage of single-centered bulbs: Moderate
Scale: Light in color. Thin. Several layers.
Yield: Excellent
Comments: Has been used for ring processing

DON VICTOR

Maturity: Late May
Pink root resistance: Excellent
Bolting resistance: Fair. Plant later than October 1 to prevent bolting.
Bulb shape: Globe to deep grano
Bulb firmness: Excellent
Percentage of single-centered bulbs: Moderate
Scale: Good color and texture. Multiple layers. Tends to be thick.
Yield: Excellent. Large bulbs.

EXCALIBUR

Maturity: Late May
Pink root resistance: Excellent
Bolting resistance: Fair. Plant later than October 1 to prevent bolting.
Bulb shape: Globe to flat globe with slight taper
Bulb firmness: Good
Percentage of single-centered bulbs: Moderate
Scale: Good color
Yield: Very good. Large bulbs.

IBEX

Maturity: Late May
Pink root resistance: Very good
Bolting resistance: Excellent
Bulb shape: Top-shaped bulbs. Some variability.
Bulb firmness: Good
Percentage of single-centered bulbs: Moderate
Scale: Good color
Yield: Excellent

NIKITA

Maturity: Late May
Pink root resistance: Good
Bolting resistance: Fair. Plant later than October 1 to prevent bolting.
Bulb shape: Deep top-shaped bulbs. Some variability.
Bulb firmness: Good
Percentage of single-centered bulbs: Moderate
Scale: Good color. Thin.
Yield: Excellent. Large bulbs. High percentage of marketable bulbs.

NUMEX MESA

Maturity: Late May
Pink root resistance: Excellent
Bolting resistance: Excellent
Bulb shape: Top-shape to high globe. Some variability.
Bulb firmness: Good
Percentage of single-centered bulbs: Moderate
Scale: Good color. Thin.
Yield: Excellent

NUMEX SWEETPAK

Maturity: Late May
Pink root resistance: Good
Bolting resistance: Fair. Plant later than September 30 to prevent bolting.
Bulb shape: Globe to flat globe. Some variability.
Bulb firmness: Good
Percentage of single-centered bulbs: High
Scale: Good color. Thin.
Yield: Large bulbs
Comments: Produces bulbs with low pungency. Good selection for early maturing sweet onion.

TEXAS EARLY WHITE

Maturity: Late May
Pink root resistance: Good
Bolting resistance: Poor. Plant later than October 5 to prevent bolting.
Bulb shape: Deep top shape. Some variability.

Rating Scales

Pink root resistance: Poor – Fair – Good – Very good – Excellent
Bolting resistance: Poor – Fair – Good – Very good – Excellent
Bulb firmness: Poor – Fair – Good – Very good – Excellent
Percentage of single-centered bulbs: Low – Moderate – High

Bulb firmness: Good
Percentage of single-centered bulbs: Moderate
Scale: Excellent white color
Yield: Large bulbs

CARDINAL

Maturity: Early June
Pink root resistance: Poor. Highly susceptible to pink root and Fusarium basal rot. Should be planted on pink root-free land for the greatest yield.

Bolting resistance: Excellent

Bulb shape: Flat globe

Bulb firmness: Good

Percentage of single-centered bulbs: Low

Scale: Excellent red color

Yield: High yield of large bulbs when grown on pink root-free land. Small bulbs and low yield on pink root-infested land.

CARIBOU

Maturity: Early June

Pink root resistance: Good

Bolting resistance: Good

Bulb shape: Globe to flat globe

Bulb firmness: Fair

Percentage of single-centered bulbs: Moderate

Scale: Good color. Multiple layers.

Yield: High percentage of marketable yield

NUMEX STARLITE

Maturity: Early June [*late June as a transplant*]

Pink root resistance: Good

Bolting resistance: Excellent

Bulb shape: Deep grano. Some variability.

Bulb firmness: Good

Percentage of single-centered bulbs: Moderate

Scale: Good color

Yield: Excellent. Large bulbs. High percentage of marketable yield.

Comments: Performs well as a transplant. Produces low-pungency bulbs.

TEXAS GRANO 1015Y

Maturity: Early June [*mid-June as a transplant*]

Pink root resistance: Excellent

Bolting resistance: Poor. Very susceptible to bolting when direct seeded.

Bulb shape: Globe to flat globe

Bulb firmness: Fair

Percentage of single-centered bulbs: Moderate

Scale: Light in color

Yield: High percentage of marketable yield. High yields as transplants.

Comments: Bulb has good overall appearance

TEXAS GRANO 1025Y

Maturity: Early June [*Mid-June as a transplant*]

Pink root resistance: Excellent

Bolting resistance: Poor. Very susceptible to bolting when direct seeded.

Bulb shape: Globe to flat globe

Bulb firmness: Good

Percentage of single-centered bulbs: Low

Scale: Good color

Yield: High percentage of marketable yield

Comments: Performs well as a transplant

NUMEX DULCE

Maturity: Mid-June [*late June as a transplant*]

Pink root resistance: Good

Bolting resistance: Very good

Bulb shape: Globe. Some variability.

Bulb firmness: Poor

Percentage of single-centered bulbs: High

Scale: Good color

Yield: Excellent. Large bulbs.

Comments: Produces low-pungency bulbs. Performs well as transplant.

NUMEX VADO

Maturity: Mid-June

Pink root resistance: Good

Bolting resistance: Good

Bulb shape: Globe. Some variability.

Bulb firmness: Very good

Percentage of single-centered bulbs: Moderate

Scale: Good color. Multiple layers.

Yield: Very good. Large bulbs.

NUMEX LUNA

Maturity: Late June

Pink root resistance: Good

Bolting resistance: Very good

Bulb shape: High globe. Some variability, including some elongated bulbs.

Bulb firmness: Good

Percentage of single-centered bulbs: Low

Scale: Multiple layers. Good color.

Yield: Large bulbs

Comments: Performs well as transplant. Late maturing.

SPRING-PLANTED VARIETIES

ASPEN

Maturity: Early July
Pink root resistance: Fair
Bulb shape: Globe to flat globe
Bulb firmness: Good
Percentage of single-centered bulbs: Moderate
Scale: Good white color
Yield: Small bulbs
Comments: Susceptible to Fusarium basal rot

CABALLERO

Maturity: Early July
Pink root resistance: Fair
Bulb shape: Globe
Bulb firmness: Excellent
Percentage of single-centered bulbs: Moderate
Scale: Good color. Multiple layers.
Yield: High. Large bulbs. High percentage of marketable yield. Excellent quality.

CIMARRON

Maturity: Early July [*late June as a transplant*]
Pink root resistance: Good
Bulb shape: Globe
Bulb firmness: Good
Percentage of single-centered bulbs: Moderate
Scale: Good color. Multiple layers.
Yield: High percentage of marketable yield
Comments: Performs well as transplant. Transplant has good bolting resistance. Produces high quality bulbs.

NAVIGATOR

Maturity: Early July
Pink root resistance: Good
Bulb shape: Round globe
Bulb firmness: Excellent
Percentage of single-centered bulbs: Moderate
Scale: Good color, multiple layers, thin
Yield: High. High percentage of marketable bulbs.
Comments: Only observed for one year.

NUMEX BOLO

Maturity: Early July [*late June as a transplant*]
Pink root resistance: Good
Bulb shape: Globe
Bulb firmness: Good

Percentage of single-centered bulbs: High
Scale: Good color
Yield: High percentage of marketable yield. High yield when direct seeded or transplanted. Performs best as a transplant. Transplant has excellent bolting resistance.
Comments: Very similar to 'NuMex Jose Fernandez'

NUMEX JOSE FERNANDEZ

Maturity: Early July [*late June as a transplant*]
Pink root resistance: Good
Bulb shape: Globe
Bulb firmness: Good
Percentage of single-centered bulbs: High
Scale: Light colored
Yield: Produces a higher yield than 'NuMex Bolo' when grown as a transplant.
Comments: Early, sweet Spanish type. Very similar to 'NuMex Bolo' but matures slightly later. Produces larger bulbs than 'NuMex Bolo' when direct seeded or transplanted.

RIO GIGANTE

Maturity: Early July
Pink root resistance: Good
Bulb shape: Deep grano with rounded tops
Bulb firmness: Good
Percentage of single-centered bulbs: Moderate
Scale: Good color. Multiple layers.
Yield: High percentage of marketable bulbs
Comments: Only observed for one year

SIERRA BLANCA

Maturity: Early July
Pink root resistance: Good
Bulb shape: Globe
Bulb firmness: Very good
Percentage of single-centered bulbs: Moderate
Scale: Good color
Yield: High percentage of marketable bulbs

CANDY

Maturity: Mid-July [*late June as a transplant*]
Pink root resistance: Fair
Bulb shape: Round globe
Bulb firmness: Good
Percentage of single-centered bulbs: Moderate
Scale: Good color
Yield: Large bulbs
Comments: Performs well as transplant. Transplant has excellent bolting resistance. Good bulb quality.

Rating Scales

Pink root resistance: Poor – Fair – Good – Very good – Excellent

Bolting resistance: Poor – Fair – Good – Very good – Excellent

Bulb firmness: Poor – Fair – Good – Very good – Excellent

Percentage of single-centered bulbs: Low – Moderate – High

NUMEX CASPER**Maturity:** Mid-July [*late June as a transplant*]**Pink root resistance:** Excellent**Bulb shape:** Globe**Bulb firmness:** Good**Percentage of single-centered bulbs:** High**Scale:** Good white color**Yield:** High. Large bulbs.**Comments:** Performs well as a transplant.

Transplant has good bolting resistance.

UTOPIA**Maturity:** Mid-July [*late June as a transplant*]**Pink root resistance:** Fair**Bulb shape:** Globe**Bulb firmness:** Fair**Percentage of single-centered bulbs:** Moderate**Scale:** Good color**Yield:** High. Large bulbs. High percentage of marketable yield.**Comments:** Good quality. Performs well as transplant. Excellent bolting resistance for a transplant.**ARMADA****Maturity:** Late July**Pink root resistance:** Fair**Bulb shape:** Globe**Bulb firmness:** Good**Percentage of single-centered bulbs:** Moderate**Scale:** Good quality**Yield:** Medium. Excellent quality.**Comments:** Very good handling characteristics**NUMEX CENTRIC****Maturity:** Late July [*early July as a transplant*]**Pink root resistance:** Fair**Bulb shape:** Globe. Uniform.**Bulb firmness:** Fair**Percentage of single-centered bulbs:** High**Scale:** Good color**Yield:** High. Large bulbs.**Comments:** Early, sweet Spanish type. Performs well as a transplant. Good quality.**RIVIERA****Maturity:** Late July**Pink root resistance:** Fair**Bulb shape:** Flattened globe. Uniform.**Bulb firmness:** Fair**Percentage of single-centered bulbs:** Moderate**Scale:** Good color and bulb finish**Yield:** High. Large bulbs.**Comments:** Good quality**VEGA****Maturity:** Late July**Pink root resistance:** Fair**Bulb shape:** Globe**Bulb firmness:** Good**Percentage of single-centered bulbs:** Moderate**Scale:** Good quality**Yield:** Medium. Excellent quality.**Comments:** Very good handling characteristics**RINGMASTER****Maturity:** Early August**Pink root resistance:** Fair**Bulb shape:** Globe**Bulb firmness:** Fair**Percentage of single-centered bulbs:** High**Scale:** Good color**Comments:** Good handling characteristics**VAQUERO****Maturity:** Early August**Pink root resistance:** Fair**Bulb shape:** Globe**Bulb firmness:** Good**Percentage of single-centered bulbs:** Moderate**Scale:** Good quality**Yield:** High. Large bulbs.**Comments:** Excellent quality. Good handling characteristics.

Table 1. Onion varieties and their seeding or transplanting dates to achieve onion harvest from May 20 to August 10 in Las Cruces, New Mexico.

Harvest date	Variety	Skin color	Seeding or transplanting date
May 20 to June 1	Buffalo	Yellow	Seeded September 20
	Daybreak	Yellow	Seeded October 1
	Don Victor	Yellow	Seeded October 1
	Excalibur	Yellow	Seeded October 1
	Ibex	Yellow	Seeded September 20
	Nikita	Yellow	Seeded October 1
	NuMex Mesa	Yellow	Seeded September 20
	NuMex Sweetpak	Yellow	Seeded October 1
	Texas Early White	White	Seeded October 5
June 1 to June 10	Cardinal	Red	Seeded September 25
	Caribou	Yellow	Seeded September 25
	NuMex Starlite	Yellow	Seeded September 25
	Texas Grano 1015Y	Yellow	Seeded October 5
	Texas Grano 1025Y	Yellow	Seeded October 5
June 10 to June 20	NuMex Dulce	Yellow	Seeded October 1
	Texas Grano 1015Y	Yellow	Transplanted February 15
	Texas Grano 1025Y	Yellow	Transplanted February 15
	NuMex Vado	Yellow	Seeded October 1
June 20 to July 1	Candy	Yellow	Transplanted March 1
	Cimarron	Yellow	Transplanted March 1
	NuMex Bolo	Yellow	Transplanted March 1
	NuMex Casper	White	Transplanted March 1
	NuMex Dulce	Yellow	Transplanted February 15
	NuMex Jose Fernandez	Yellow	Transplanted March 1
	NuMex Luna	Yellow	Seeded October 1
	NuMex Starlite	Yellow	Transplanted February 15
	Utopia	Yellow	Transplanted March 1
July 1 to July 10	Aspen	White	Seeded February 1
	Caballero	Yellow	Seeded February 1
	Cimarron	Yellow	Seeded February 1
	Navigator	Yellow	Seeded February 1
	NuMex Bolo	Yellow	Seeded February 1
	NuMex Centric	Yellow	Transplanted March 1
	NuMex Jose Fernandez	Yellow	Seeded February 1
	Rio Gigante	Yellow	Seeded February 1
	Sierra Blanca	White	Seeded February 1
July 10 to July 20	Candy	Yellow	Seeded February 1
	NuMex Casper	White	Seeded February 1
	Utopia	Yellow	Seeded February 1
July 20 to August 1	Armada	Yellow	Seeded February 1
	NuMex Centric	Yellow	Seeded February 1
	Riviera	Yellow	Seeded February 1
	Vega	Yellow	Seeded February 1
August 1 to August 10	Ringmaster	White	Seeded February 1
	Vaquero	Yellow	Seeded February 1

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