

SORAYA

Agronomic Highlights – Irrigated

Soraya is a high to very high yielding early Maincrop variety (95-100 DAP) that has an attractive smooth skin finish and medium to dark yellow flesh. Soraya produces medium to large, uniform, oval shaped tubers with a high marketable yield with a great flavor profile. It is semi tolerant to heat and drought stresses.

SEED MANAGEMENT:

Soraya has a medium dormancy. Maintain seed dormancy until just prior to cutting and planting. Ensure seed is > 42 F when handling. Tubers should be showing signs of “**pipping**” just in advance of planting, if not, a delay in emergence may occur. Do not allow the seed to sprout and then be de-sprouted. Seed should be cut to a target seed size distribution of 75-85 % between 1.5 – 3.0 ounces and minimize seed piece less than 1.5 oz. in weight. Average seed piece weight targets should not be targeted as it is highly dependent upon the mother seed lot size. **The use of a drying agent at seed cutting is highly recommended.**

For best results, Soraya should be pre-cut 10-14 days prior to planting if possible. Avoid fresh cutting if possible.

Minimize bruising during handling.

Use of a seed piece seed piece treatment that gives excellent control of Rhizoctonia, Fusarium, silver scurf is highly recommended.

The use of an in-furrow fungicide is recommended for tuber disease control

IN ROW SPACING:

[Irrigated Spacing: 9.0-10.0 inch]

This is based on linear row planting, not bed plantings.

Soraya can produce a relatively high percentage of tubers > 3.0 inch diameter if the in-row spacing is > than 10.0 inch

STRENGTHS:

High PVY tolerance, Common scab, Hollow Heart, Rhizoctonia, Black leg, Secondary Growth, Mechanical damage, good smooth skin finish, no obvious lenticels unless over irrigated.

FERTILITY

P, K, Mg and micros nutrients are to be based on local soil tests results, crop yield estimates and nutrient removal rate.

Avoid excessive use of K nutrition which may suppress dry matter content.

Yield targets of 400-450 cwt/acre should be used.

Soraya does require a sufficient amount of N but is not a heavy user of N compared to other yellow flesh varieties.

Excessive N rates may delay maturity and skin set or cause uneven growth of the tubers

A total N rate of 125-135 lb/acre is common for commercial production in under irrigated production, ideally split between pre plant and planter mixes. Up to 50-75 lb/acre N of the total should be applied before planting. Although a smaller portion of the total N can be applied at planting but no later than tuber initiation (25-35%).

Allow soil or rotation N credits in the total N amount. Compensate N for high C:N rotation crops (corn, sudan grass....)

On coarse sandy soils (CEC 5-8) may require 20-25% more total N (total of ~175-180 lb/acre N) Monitor N levels using petiole N sampling on a weekly basis beginning after 40-45 DAP. Maintain 15-20000 ppm of N from 50-70 days after planting.

COMMENTS:

Soraya sets ~ 12-15 tubers per plant.

Soraya produces ~ 3.0-3.5 stems per plant

Minimize field conditions that would allow for standing water.

It can require up to 18-20 days from top-kill to harvest. Ensure tubers are mature before harvest.

Avoid harvesting in dry soil conditions.

Harvest tubers when the tuber temperature is > 45 F or < 60 F to prevent black spot bruising.

Avoid mechanical damages.

If Soraya is to be stored for long term, use of a post-harvest treatment is suggested. Although Soraya has low susceptibility to silver scurf and early blight lesions supplemental applications may be required

Soraya is a low - medium dry matter variety therefore proper wound healing is required after seed cutting.

Early irrigation is important in that Soraya tends to set tubers 7-12 days after plant emergence, maintain at 65-75 % available soil moisture. Uneven watering may cause the tubers to be tapered. Avoid over watering for lenticel control later in the season.

Soraya has a vigorous vine and a large root mass for nutrient and water

DISEASE(S):

Soraya is resistant to Late Blight but has no resistance traits for early Blight and requires a standard early Blight program that is typical in the production area or disease pressure.

Avoid fields with a known history of common scab but has some tolerance to the disease.

Avoid fields with a known history of powdery scab but has some tolerance to the disease.

Soraya is less susceptible to Verticillium wilt and Black dot than Yukon Gold.