

NADINE

Agronomic Highlights – Irrigated

Nadine is a very high yielding Maincrop maturing variety(95-105 DAP) that has a white skin and cream flesh. It is semi tolerant to heat and drought stresses. It produces very high total and marketable yield. Nadine produces uniform medium to large oval tubers with a bright skin finish.

SEED MANAGEMENT:

Nadine 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. Do not de-sprout the seed. 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. Nadine can be pre-cut and suberized. **The use of a drying agent at seed cutting is highly recommended.**

Use of a seed piece treatment that gives excellent control of Rhizoctonia, **Fusarium**, Silver scurf is highly recommended. The use of an in-furrow fungicide is recommended. Avoid off type cuts from the seed cutter.

IN ROW SPACING:

[Irrigated Spacing: **11.0-12.0** inch]

This is based on linear row planting, not bed plantings. It is not suggest to plant Nadine in a bed planting system unless a small tuber profile is desired.

Nadine can produce a moderate percentage of tubers > 3.0 inch diameter if the in-row spacing is at 12.0 inch.

STRENGTHS:

Common scab, Hollow Heart, Secondary Growth, Mechanical damage, excellent skin finish retention from storage.

FERTILITY

P, K, Mg and micros nutrients are to be based on local soil tests results, crop yield estimates and nutrient removal rate. Yield targets of 625-675 cwt/acre should be used.

However, Nadine does require a larger amount of N compared to other White type varieties because of the yield potential. Excessive N rates will delay maturity and skin set, especially before tuber initiation

A total N rate of 175-190 lb/acre is common for commercial production on mineral soils. Avoid high amounts of N application before tuber initiation.

Allow soil or rotation N credits in the total N amount.

Compensate N for high C:N rotation crops (corn, sudan grass....)

It is recommended that a portion of the N is applied through the irrigation system, upwards of 70-100 lb/acre N should be applied by the end of planting. Additional N through the irrigation system should begin at tuber initiation and rates of ~20 lb/acre per week until total N target is reached.

Sandy soils (CEC 5-8) may require 10-15% more total N. Monitor N levels using petiole N sampling on a weekly basis beginning after 40-45 DAP.

Maintain N levels 19000-22000 ppm from 45 DAP to 55 DAP. Then maintain N levels 16000-18000 ppm of N from 55-75 DAP.

Solid set irrigation may require an additional 15-20% more N.

Ideally when possible, the use of potassium sulfate should be considered as a substitute for potassium chloride or minimize the usage of chloride based sources.

COMMENTS:

Nadine sets ~14-20 tubers per plant depending on the cut seed type.

Nadine produces 3.5-4.5 stems per plant

Avoid planting dates that would allow Nadine to initiate tubers when the soil temperatures are < 55 F

Avoid over watering at tuber initiation.

It can require up to 14-21 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 Nadine is to be stored for long term, use of a post-harvest fungicide is suggested.

DISEASE(S):

Nadine requires a standard Late Blight and Early Blight fungicide program that is typical in the production area.

Avoid planting Nadine in fields with a known history of poor drainage, compaction and powdery scab.

Maintain good insect control (aphids) throughout the growing season.

Maintain good control of black dot