



OUTSTANDING QUALITIES

- ◆ YEAR-ROUND PRODUCTION
- ◆ VERY EARLY MATURITY
- ◆ HIGH QUALITY ROOTS
- ◆ SWEET MILD TASTE
- ◆ FLESH IS WHITE WITH PURPLE RINGS

Chioggia Guardsmark offers a vivid purple and white interior zoning, along with a mild sweet flavour. This beet is appealing to the fresh market, speciality growers and home gardeners. The roots have a flattened globe shape, a medium-sized crown and a medium-sized tap root.

SPECIAL VARIETAL REQUIREMENTS

- We do not recommend sowing during May, June and July in cold areas
- Contact area representative for a sowing guide

CHARACTERISTIC	CHIOGGIA GUARDSMARK
KIND	Garden beet selection (<i>Beta vulgaris</i> L. subsp. <i>vulgaris</i> var. <i>conditiva</i> Alef.)
MATURITY	60 - 65 days for warm season production 80 - 95 days for cool season production
SEASON	Year-round
ROOT SHAPE	Flattened globe
CROWN SIZE	Medium
SMOOTHNESS	Smooth
INTERIOR COLOUR	White with purple zoning (Candy-striped)
ZONING	Strong
SUGAR CONTENT	High
TOP HEIGHT	Medium strong (35 - 40 cm)
LEAF HABIT	Erect
LEAF COLOUR AND GLOSS	Light green leaves with light pink petioles
PURPLE IN LEAF (BETALIN PIGMENT)	Very light
BOLTING HABIT	Very slow
PLANT POPULATION	450 000 - 550 000 plants per ha for normal roots 600 000 - 800 000 for baby beet production
UNIFORMITY	Good
MARKET USE	Processing, restaurants and baby beet production
SPECIAL FEATURES	Year-round production and widely adapted. Vibrant candy-striped colour, excellent for salads

* Characteristics given are affected by production methods such as soil type, nutrition, planting population, planting date and climatic conditions. Please read disclaimer.

Disclaimer: This information is based on our observations and/or information from other sources. As crop performance depends on the interaction between the genetic potential of the seed, its physiological characteristics, and the environment, including management, we give no warranty express or implied, for the performance of crops relative to the information given nor do we accept any liability for any loss, direct or consequential, that may arise from whatsoever cause. Please read the Sakata Seed Southern Africa (Pty) Ltd Conditions of Sale before ordering seed.

Resistance: is the ability of a plant variety to restrict the growth and development of a specified pest or pathogen and/or the damage they cause when compared to susceptible plant varieties under similar environmental conditions and pest or pathogen pressure. Resistant varieties may exhibit some disease symptoms or damage under heavy pest or pathogen pressure (HR = High resistance, IR = Intermediate resistance).

* **Experimental:** This variety does not appear on the current South African Variety list, but has been submitted for registration.

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GENERAL TIPS FOR BEET PRODUCTION

Fertiliser requirements

Macro-nutrients

Soil tests are the most accurate guides to fertiliser requirements. Soil should be tested at least every two to three years, however many farmers prefer to check this every season. Nitrogen does not accumulate in soil over time, so it should be applied annually. A representative soil sample of the whole field should be taken for more accurate results.

Good management practices are essential if optimal fertiliser responses are to be realized. These practices include use recommended varieties, selection of appropriate soils, good weed control, disease and insect control, good seed bed preparation, proper seeding methods and timely harvest.

Lime

Lime applications should be made when the soil pH is 5.8 or below, or when calcium levels are below 7 meq (milli equivalent) Ca/100 g soil.

Lime should be mixed into the soil several weeks before planting and preferably the previous autumn. A lime application is effective over several years.

For acid soils low in magnesium (less than 1.0 meq Mg/100 g soil), 2.25 tonnes per hectare of dolomitic lime can be used as a Mg source. Dolomite and ground limestone have about the same ability to neutralise soil acidity.

Nutrient Deficiencies

Nitrogen (N): Purpling or yellowing of older leaves usually accompanied by retarded growth of roots and plants. Variation from purple to yellow is associated with temperatures.

Molybdenum (Mo): Patches on the leaf die and become papery.

Phosphorus (P): Leaf blade unusually flat. Prominent purple venation even to finest veins, leading to a bronze look. New leaves are purple, small and erect.

Sulfur (S): Young leaves are narrow, very brittle and erect. They appear yellow and are densely speckled with purple spots, which eventually coalesce, making whole leaf purple.

Potassium (K): Old leaves become limp and die back from tip.

Calcium (Ca): Young leaves have purple-black, hooked tips, which later die and exhibit leaf roll.

Magnesium (Mg): Interveinal chlorosis (yellowing) with reddish tinting on older leaves. At times chlorosis is not observed but interveinal red mottling. Later, brown blisters with purple edges are seen on intermediate aged leaves. If Mg levels are low at more mature growth stage, a pronounced convex bubbling of the leaf lamina between the veins makes midrib appear deeply recessed.

Iron (Fe): Young leaves appear bleached while older leaves have a reddish tint.

Manganese (Mn): Leaves triangular in shape with margins curled inward and severe interveinal speckling. Older leaves are chlorotic and fade to reddish colour with brown interveinal tissue. Roots reduced in size.

Boron (B):

Canker-scattered black lesions in the flesh of the root, sometimes with large black areas on root surface. Lack of moisture aggravates boron deficiencies. Boron should not be banded; instead, it should be applied evenly over the field.

Disease resistance definition

Resistance: is the ability of a plant variety to restrict the growth and development of a specified pest or pathogen and/or the damage they cause when compared to susceptible plant varieties under similar environmental conditions and pest or pathogen pressure. Resistant varieties may exhibit some disease symptoms or damage under heavy pest or pathogen pressure. Two levels of resistance are defined:

High/standard resistance (HR): plant varieties that highly restrict the growth and development of the specified pest or pathogen under normal pest or pathogen pressure when compared with susceptible varieties. These plant varieties may, however, exhibit some symptoms or damage under heavy pest or pathogen pressure.

Moderate/intermediate resistance (IR): plant varieties that restrict the growth and development of the specified pest or pathogen, but may exhibit a greater range of symptoms or damage compared to resistant varieties.

Moderately/intermediately resistant plant varieties will still show less severe symptoms or damage than susceptible plant varieties when grown under similar environmental conditions and/or pest or pathogen pressure.

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