SAKATA
PASSION in Seed

Sampson

F1 Hybrid Grey Pumpkin

TB REF: SAMPSON: 01/04/2024

OUTSTANDING QUALITIES

- ♦ VERY STRONG, VIGOROUS GROWER
- ♦ THICK FLESHED WITH A SMALL SEED CAVITY
- ♦ EXCELLENT PROCESSING QUALITIES
- ♦ EXCELLENT SHELF LIFE

Sampson is a medium-sized grey-skin type pumpkin with an indeterminate growth habit. **Sampson** is a strong, vigorous grower with an intermediate virus resistance package against Zucchini yellow mosaic virus (ZYMV), Watermelon mosaic virus (WMV) and Papaya ringspot virus (PRSV). Fruit size averages between 4 - 7 kg and the fruit is thick fleshed with a small seed cavity. The fruit is uniform in shape and size, slightly ribbed with a concave top, heavy shoulders and small blossom end. **Sampson** can be planted in summer and winter growing regions. The shelf life of **Sampson** is excellent, with the ability to be stored for up to 6 months and longer under normal storage conditions. Due to the long shelf life and firm, thick flesh, **Sampson** is also suitable for processing.

SPECIAL VARIETAL REQUIREMENTS

- Do not apply too much Nitrogen towards fruit maturation
- Contact area representative for more information

CHARACTERISTIC*	SAMPSON
KIND	F1 hybrid pumpkin (*Cucurbita maxima* Duchesne.)
TYPE	Grey-skin pumpkin
MATURITY	Medium (115 - 120 days from direct sowing)
SEASON	Widely adapted for production after danger of frost has passed
PLANT TYPE	Vigorous indeterminate vine
FRUIT SHAPE	Medium deep
FRUIT SIZE	Medium to large, 4 - 7 kg
FRUIT RIBBING	Slight to medium
FRUIT FLESH	Thick and even, firm texture
FLESH COLOUR	Deep orange
RIND COLOUR	Light grey
SEED CAVITY	Small
STORAGE ABILITY	Excellent, up to 6 months if harvested at the correct stage
UNIFORMITY	Very good
POPULATION GUIDE	5 000 – 6 000 final stand per ha
DISEASE REACTION (SCIENTIFIC)	**Intermediate resistance:** *Zucchini yellow mosaic virus (ZYMV), Watermelon mosaic virus (WMV), Papaya ringspot virus (PRSV)*
MARKETS / END USE	Fresh market and processing
SPECIAL FEATURE	Excellent processing qualities and yield potential

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

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.
Recent version: Kindly contact Sakata or Area Representative for the most recent version of this Technical Bulletin.

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GENERAL TIPS FOR PUMPKIN PRODUCTION

Soil Requirements
Pumpkins produce best on well-drained, fertile soil. The plants produce large, shallow root systems very rapidly in the top 20 - 25 cm of soil, which should be prepared into a firm, well-fertilised seedbed. Squash and pumpkins do well in soils where 25 - 30 tons of well-rotted manure have been applied per hectare. To help avoid soil-borne disease problems, select fields that have not had other vine crops, tomatoes or peppers for at least three years.

As far as soil acidity is concerned, cucurbits are moderately sensitive to acidic soils. Good results can be expected over a range of pH values extending from 5.5 - 7.5 (H_20). If the soil pH is lower than 5.5, dolomitic lime should be applied in accordance with the analytic findings. Lime should be ploughed in four weeks or more before the planting season.

Examination of the soil
The ideal soil depth for cucurbits, particularly pumpkins, is 900 mm and deeper. These crops should not be cultivated on soils less than 450 mm deep. The highest concentration of roots is found in the top 300 mm of soil. Tillage banks and impenetrable layers occurring at less than 450 mm should be broken with a sub-soiler.

The fertiliser and lime requirements are determined by laboratory analysis of a representative soil sample. In view of the fact that lime should be applied at least 4 - 8 weeks before planting the soil sample should be submitted for analysis as early as possible. Disregard of the lime requirement can be the cause of a severe reduction in yield.

Clean cultivation
The field should be clean cultivated for 6 - 8 weeks before planting. This practice controls cutworms by the removal of host plants from the field and also facilitates weed control. Organic material usually decomposes during this period, therefore preventing a nitrogen negative period after planting.

Crop rotation
The main purpose of a rotational system is to combat soil-borne diseases and pests associated with specific crops. Systems are often designed to include a green-manure crop in order to increase the organic content of soil.

Cucurbits may follow any unrelated vegetable in a rotational system. The potato is an exception as there is some evidence that certain *Fusarium* species attack both cucurbits and potatoes. Grasses or grain crops, such as oats in the Western Cape and Babala in the hot areas of the Limpopo Province, are the most suitable green-manure crops. Nematodes or any of the diseases associated with vegetable crops do not generally attack them. These crops should be ploughed in while they are still green and at least 8 weeks before planting.

Protection against sunburn
Varieties with dark-skinned fruit are highly susceptible to sunburn. The most effective protection is obtained when the fruit is totally covered by foliage, which is brought about by the application of sound production practices. Branches, straw, chaff, etc. can also be used to cover fruit but this practice is labour intensive and not very effective in windy areas.

Prevention of disease
Diseases can be prevented to a large extent by the following:
- Rotational cropping
- Use of disease-free seed
- Good drainage
- Regular inspections and an effective spray program
- Planting time
- Planting against the wind direction

Prevention against wind damage
Developing pumpkin and squash fruit have thin, sensitive skins that damage and mark easily. These permanent marks negatively affect the price of the final product, e.g. Crown Prince for export, Gemini for baby gems, etc. Many producers are therefore growing windbreaks to reduce wind damage.

Plant spacing guide: Distance between plants in the row:

Between row spacing	Plant population		
	6 000	7 000	8 000
1. 60 m	104 cm	89 cm	82 cm

Susceptibility definition:
Susceptibility (S) is the inability of a plant variety to restrict the growth and development of a specified pest or pathogen.

Tolerance definition:
Tolerance (T) is the ability of a plant variety to endure **abiotic stress** without serious consequences for growth, appearance and yield. Vegetable companies will continue to use tolerance for abiotic stress.

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).
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