

# APOLLO

## F1 Hybrid Butternut Squash



### OUTSTANDING QUALITIES

- ◆ MEDIUM TO LARGE-SIZED FRUIT
- ◆ ELONGATED WALTHAM SHAPE
- ◆ EXCELLENT FRUIT UNIFORMITY
- ◆ EXCELLENT YIELD POTENTIAL
- ◆ GOOD VIRUS RESISTANCE


**Apollo** F1 hybrid is a *Cucurbita moschata* type butternut squash bearing medium to large sized fruit with excellent fruit qualities and uniformity. Plants are vigorous and have intermediate resistance against Zucchini yellows (ZYMV) and Papaya ringspot (PRSV). **Apollo** is widely adapted and yield potential is excellent. Fruit set is excellent and over a long bearing season. Fruit weigh between 1 500 – 2 200 g when planted in warm conditions and are not inclined to crack. The fruit has an elongated Waltham shape, making the variety ideal for roundel cuts. The flesh texture is firm and the rind is very smooth. The rind colour is a deep tan when mature. The mature fruit have a very good shelf life and are used as traditional fresh market butternuts or for processing.

### SPECIAL VARIETAL REQUIREMENTS

- To obtain large fruit, we suggest planting during summer. Medium-sized fruit may be expected with early spring and autumn plantings
- We suggest a plant population of 10 000 – 15 000 plants per hectare
- Contact area representative for more information

CHARACTERISTIC*	APOLLO
KIND	F1 hybrid squash ( <i>Cucurbita moschata</i> (Duchesne) Duchesne ex Poiré)
TYPE	Butternut squash
MATURITY	85 - 100 days to harvest as mature fruit
SEASON	Widely adapted for warm season production and cool season production in tropical and sub-tropical areas
PLANT TYPE	Full vine
FRUIT SHAPE	Elongated cylindrical, with a bulbous blossom end
RIND COLOUR	Deep tan
YIELD POTENTIAL	35 - 50 t/ha
MATURE HARVEST MASS	1 500 – 2 200 g
SHELF LIFE (MATURE FRUIT)	Very good
UNIFORMITY	Excellent
PLANT SPACING GUIDE	1.6 m between rows, for in-row spacing see page 2
POPULATION GUIDE	10 000 - 15 000 final stand per ha
DISEASE REACTION (SCIENTIFIC)	<b>Intermediate resistance:</b> Zucchini yellow mosaic virus (ZYMV), Papaya ringspot virus (PRSV)
MARKETS / END USE	Fresh market, processing
SPECIAL FEATURES	Very uniform, medium to large fruit size, excellent yield potential

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

 WARNING: VARIETY PROTECTED UNDER PLANT BREEDERS RIGHTS. UNAUTHORIZED MULTIPLICATION AND/OR MARKETING OF SEED PROHIBITED.

**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).

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## GENERAL TIPS FOR BUTTERNUT PRODUCTION

### Spacing, planting depth and planting of seed

The ideal plant population for butternuts is between 12 000 - 18 000 plants per hectare. With a general seed count of 10 seeds per gram (10 000 seeds per kg), approximately 1 kg of seeds are needed for 1 ha at a plant population of 10 000 plants per ha. A general recommendation for butternuts is 1.0 – 1.5 m between rows. This may be adapted to some extent to climatic conditions and/or available implements.

### Plant spacing guide for distance between plants in the row:

Row spacing	Plant population		
	10 000	12 000	15 000
1.0 m	100 cm	83 cm	66 cm
1.6 m	62 cm	52 cm	42 cm

Butternut seed should be planted 30 - 40 mm deep. Under ideal conditions the field should be thoroughly irrigated before planting. The seed should make good contact with the seedbed and be covered with soil that is not so wet that it forms an impervious layer on drying. No irrigation should be applied before emergence as this may cause crust formation. Should it rain before emergence and a crust be formed, soil should be kept damp with light overhead irrigation for the seedlings to be able to emerge.

During hot weather it is advisable to protect the soil surface from drying out by means of mulch such as wood chips, bark or straw. After emergence, the mulch should be removed to prevent the development of spindly plants.

The seed should not be planted too shallow, as the top layer of the soil will dry out quickly, resulting in poor field germination. It should also not be planted too deep as the seedlings are more prone to disease due to the extended pre-emergence period.

### 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 to 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.

### Irrigation

Calculating how much water to apply at every irrigation, requires an estimate of the crop's rooting depth and the water-holding capacity of the soil. Light irrigation is needed more frequently at early seedling stages because the plant has only a small soil water reservoir. Later in the season, less frequent but deeper irrigations are used to replenish a larger rooted volume. Information on water-holding capacity is important so as to avoid adding more water at any one time than the soil can hold. Maintain soil moisture above 60% of the soil water holding capacity. Light-textured soils hold less water than heavy clay soils; thus a grower with a sandy soil will irrigate more frequently and apply less water at each irrigation-application.

Irrigation requirements for pumpkins and squashes are influenced by many factors. As a general guide, observe the following for a sandy loam soil type.

It is important to keep temperature and wind factor in mind as high temperatures and wind lead to an increase in evapo-transpiration

Days from planting	Root depth	Total amount of water required
0 - 30	15 cm	27.4 mm
31 - 70	30 cm	35.8 mm
71 - 110	45 cm	54.9 mm
110 - maturity	>61 cm	73.2 mm

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