ORLA Quality · Reliability · Service F1 Hybrid Sweetcorn

TECHNICAL BULLETIN REF. ORLA: 31/07/2014

PBR.

OUTSTANDING QUALITIES

AKAT

- SUPER SWEET TASTE
- YEAR ROUND PRODUCTION
- **EXCELLENT COB QUALITY**
- VERY GOOD SHELF LIFE
- **EXCELLENT TIP FILL**

Orla is a new yellow sh-2 F1 hybrid with an outstanding disease resistance. **Orla** has a very uniform cob, straight rows and high pack out. Kernels have a high brix, with a very good flavour, colour and a very good shelf life. Pollination during cooler seasons is very good. Cobs have a very good tip fill, thus reducing waste when pre-packed. Orla has intermediate resistance to Common rust (Ps), Northern leaf blight (Et), Southern corn leaf blight (Bm) and Stewart's bacterial wilt (Pst).



SPECIAL VARIETAL REQUIREMENTS

May be grown year round in frost free areas and under overhead irrigation

| CHARACTERISTIC* | ORLA | | |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--|--|
| KIND | F1 hybrid sweetcorn (Zea mays L. var. saccharata Bailey) | | |
| TYPE (ENDOSPERM) | sh-2 sweetcorn | | |
| MATURITY | 70 - 75 days from sowing, depending on climatic conditions | | |
| EAR SIZE | Medium | | |
| COB SHAPE | Very good, cylindrical | | |
| EARS PER PLANT | 1.0 | | |
| COB DIMENSIONS | 20 x 4.5 - 5 cm | | |
| KERNEL COLOUR | Bright, glossy, uniform yellow | | |
| KERNEL ROWING | Excellent, 16 – 18 rows per cob | | |
| KERNEL APPEARANCE | Refined and rounded | | |
| TIP FILL | Completely filled, slight taper | | |
| HUSK COLOUR | Dark green | | |
| HUSK PROTECTION | All ears covered, tight | | |
| SNAP | Easy | | |
| SHANK | Medium | | |
| FLAG LEAF | Average length and number | | |
| PLANT HEIGHT | 1.5 - 1.8 m | | |
| PLANT TILLERS | 0.5 | | |
| DISEASE REACTION (SCIENTIFIC) | Intermediate resistance: Puccinia sorghi (Ps), Exserohilum turcicum (Et), Bipolaris maydis (Bm) and Pantoea stewartii (Pst) | | |
| PLANT POPULATION | 50 000 – 70 000 final stand per ha | | |
| USE | Fresh market, pre-packing | | |
| SPECIAL FEATURES | Top quality well filled cobs and good shelf life, suited for year round production | | |

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 SWEETCORN PRODUCTION

P.B.R.

Climatic requirements

Sweetcorn requires soil temperatures of between 21 °C and 27 °C for optimal germination; soil temperatures should never be lower than 15 °C, although germination is still possible at 13 °C. Poor pollination is a result of temperatures above 35 °C and/or hot dry winds, under such conditions however, there is an acceleration of developing and ripening.

Soil requirements and preparation

Sweetcorn can be grown on a wide range of soil types, although the best results are achieved on sandy loam soils. Sweetcorn is moderately tolerant to salts and alkaline soils.

The root system (1.2 m deep) of sweetcorn is very sensitive to hardpans, and these must be lifted in order to make nutrients and moisture available to the crop.

By working the soil at the correct soil moisture status, a fine and even seedbed is obtained, a landplane can be used to provide an even seedbed. Uniform emergence of sweetcorn is greatly enhanced by sowing onto fine well-prepared seedbed.

Plant population

Sweetcorn seed, particularly sh-2, is easily damaged during handling or planting, therefore air planters should rather be used than plate or finger type planters.

The seed is planted in moist soils at a depth of 20 - 25 mm, shallow planting can result in problems, as the topsoil layer dries out increasing field mortality. Light irrigations at regular intervals is beneficial for germination, care should be taken to avoid over-irrigation. Sh-2 hybrids are particularly sensitive to poor irrigation practices during germination.

The average population is 50 000 - 55 000 plants per hectare, although certain varieties perform better under higher populations, and lower populations are better suited to winter production in frost free areas. Percentage germ should also be taken into account when calculating sowing rates in kilograms.

Between row spacing is determined by production practices and implements and may vary from 70 – 100 cm.

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.

Different Sweetcorn endosperm type

| Gene | Sugary (standard) | Sugar Enhanced | Shrunken 2 | |
|------------------------------|-------------------------------------|-------------------------|-------------------------------------|--|
| Common name | standard | modified sugary E.H. | supersweet ultrasweet | |
| Symbol | SU ₁ | se | sh ₂ | |
| Isolation | maize | maize | maize, se, su | |
| Sugar content | high (twic <mark>e</mark> maize) | higher | highest (twice su ₁) | |
| Pericarp (skin of kernel) | tender | extremely tender | crunchy | |
| Texture | creamy | milky creamy | watery | |
| Starch content | normal | normal | low | |
| Seeds | normal | normal | wrinkled | |
| Germination | good | good | fair | |
| Keeping quality | poor (1-3 days) | fair (3-5 days) | good (5 - 10+ days) | |

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