

DIVINE

F1 Hybrid Sweet Melon

OUTSTANDING QUALITIES

- ◆ EXCELLENT INTERNAL QUALITY
- ◆ FIRM, SWEET FLESH
- ◆ AVERAGE FRUIT WEIGHT OF 1.8 – 2.5 KG
- ◆ VERY HIGH YIELD POTENTIAL



Divine is an Eastern Shipper type melon, competing directly against varieties such as Athena. Flesh texture is very firm with consistently high Brix levels of between 12 and 15 %. **Divine** has excellent internal qualities with deep salmon orange flesh and a small seed cavity. Fruit are very uniform and attractive with an average weight of 1.8 - 2.5 kg. **Divine** is widely adapted for cool to warm and warm season productions.

Plants are vigorous with good heat tolerance and with multi-phase fruit set. In addition, the variety has a good netting ability even in the cool season. **Divine** is highly resistant to Fusarium wilt race 2 and 3 (Fom: 2, 3) and Powdery mildew race 1 and 2 (Px: 1, 2) (ex Sf).

SPECIAL VARIETAL REQUIREMENTS

- Sufficient potassium and calcium when fruit begin to develop is important for improved shelf life and flavour
- Contact area representative for the correct time to harvest

CHARACTERISTIC*	DIVINE
KIND	F1 hybrid sweet melon (<i>Cucumis melo</i> L.)
TYPE	Eastern Shipper
MATURITY	75 - 80 days (after sowing during the warm season)
GROWTH HABIT	Trailing
PLANT VIGOUR	Good
SEASON	Cool to warm and warm season
FRUIT SIZE	Weight: 1.8 – 2.5 kg Dimension: 14 x 20 cm
FRUIT SHAPE	Oval
FRUIT SEED CAVITY	Very small
FLESH COLOUR	Salmon-orange
SUGAR CONTENT	High, 12 – 15 % brix
FLAVOUR	Excellent: sweet with good flavour
RIND COLOUR	Yellow with white netting when ripe
SUTURES	None
STEM-END SLIPPING	Easy
UNIFORMITY	Excellent
LEAF COVER	Good
DISEASE REACTION (SCIENTIFIC)	High resistance: <i>Podosphaera xanthii</i> (ex <i>Sphaerotheca fuliginea</i>) race 1 and 2 (Px: 1, 2) (ex Sf) and <i>Fusarium oxysporum</i> f.sp <i>melonis</i> race 2 and 3 (Fom: 2, 3)
POPULATION GUIDE	12 000 – 15 000 final stand per ha
MARKET / END USE	Fresh market, processing
SPECIAL FEATURES	Large fruit with excellent internal quality

* 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).

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

Climatic requirements

Melons are warm-season plants and grow best at 21 – 32°C. The optimum growth temperatures at night are 18 – 20°C, and day 24 – 30°C. Optimum temperatures for fruit ripening are between 15 – 25°C. The optimal soil temperatures are between 21 – 25°C.

Temperatures below 0°C kill the plants and below 12°C growth virtually stops. If the average daily temperatures fall below 18°C melons will effectively cease growth. Temperature above 40°C will suppress the total number of flowers. Seed germinate and emerge within 4 - 6 days at a soil temperature of 25°C and within 6 - 12 days at 20°C. Melon seed do not germinate well at soil temperatures below 16°C.

Water requirements

Irrigation has a pronounced effect on both yield and quality of melons. Beds must be watered to a depth of 1 m before planting. Depending on the soil type, and season, 18 – 25 mm water must be applied weekly after emergence. **Avoid regular light irrigations.** The best time to irrigate is during crop development. Limit irrigation when the melons approach ripening time. **Excessive moisture at ripening will cause internal decay, lower sugar content and fruit bursting.**

There are three stages in melon growth, each require a different technique in calculating the amount of water to be applied:

Sowing to emergence: Irrigate the soil to field capacity to a depth of at least 1 m prior to sowing/transplanting. Keep the soil profile at field capacity until the seedlings have emerged or roots are growing strongly. Use plain water.

Emergence to first fruit set: Use plant colour as a guide. When areas of stressed plants appear in the field at midday, apply water according to the following formula:

$$\text{Number of days since last irrigation} \times \text{Penman daily evaporation} \times \text{crop factor}$$

To calculate the amount of water to apply multiply mm water (from above calculation) times 10 to give cubic meters of water per hectare required to replenish the field to field capacity.

First fruit set to harvest: The best system is the book keeping approach using the same calculations as in stage two. Irrigate when the accumulated deficit (water available to the plant from the soil) is at approximately 30 mm for sandy soil and 50 mm for clay soil. Soil and weather patterns will influence the irrigation intervals. Make use of the finger assessment of the soil to confirm if irrigation is really required. Remember: Limit irrigation when the melons approach ripening time without causing any stress to the plant.

Nutrition

The rate of uptake of nutrients varies with growth stages; germination, early runner, first flower, fruit expansion and fruit ripening. Post-plant fertilizer applications need to be split in order to supply to the varying demands by the plants through the different growth stages. It is necessary that fertilizers are applied continuously through the development of the crop in the irrigation water.

The availability of Ca and Mg during the fruit expansion phase is crucial. These nutrients must be applied in irrigation water even if the soil analyses indicate that it is present in adequate amounts. Weekly foliar sprays of Ca and Mg from fruit set to harvest may ensure the best fruit quality.

Bees and pollination

Melon plants have separate male and female flowers on the same plant. Female flowers only last one day and need to be visited by bees several times to enable fruit set. Bees are the main pollinators and must therefore be placed as close as possible to the melon crop. Poor pollination results in reduced yields and an increased percentage of misshapen fruits. Check blooming fields late morning on sunny, warm days – if the bee activity is light – provide beehives. One strong colony of bees per 4 – 5 hectares is normally sufficient. If an insecticide application is required on the melon crop or nearby fields, do it late in the afternoon when the bee activity has ceased. Place beehives up wind from the melon crop in order to limit the possibility of insecticide drift. Apply insecticides carefully during flowering.

Tolerance (T):

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.

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).

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