

# DELFT

## F1 Hybrid Cucumber

### OUTSTANDING QUALITIES

- ◆ HIGH YIELD POTENTIAL
- ◆ HEAT TOLERANCE
- ◆ VERY GOOD DISEASE RESISTANCE
- ◆ LARGE FRUIT SIZE
- ◆ SHINY DARK GREEN FRUIT



**Delft** is an early maturing parthenocarpic hybrid Dutch/English type cucumber ideally suited for production in greenhouses. **Delft** is adapted for summer to winter production. It has a very high yield potential, bearing very uniform, straight, glossy, dark green fruit with slight ribbing and a neat neck and tend to yield a high percentage of large and extra-large fruit. **Delft** is a strong grower with a medium open plant habit. A big advantage is its high resistance to Scab and gummosis (Ccu), Leaf spot (Cm) and intermediate resistance to Cucumber vein yellowing (CVYV).

Leaf spot (Cm) and intermediate resistance to Cucumber vein yellowing (CVYV).

### SPECIAL VARIETAL REQUIREMENTS

- **Delft** is recommended for summer to winter production under specific conditions
- Contact area representative for suggestions

CHARACTERISTIC*	DELFT
KIND	F1 hybrid cucumber ( <i>Cucumis sativus</i> L.)
TYPE	Dutch/English type
FLOWERING TYPE	Parthenocarpic
PRODUCTION TYPE	Plastic greenhouses
MATURITY	Early
VIGOUR	Very strong plant
FRUIT SIZE	32 - 38 cm
SHAPE	Cylindrical
COLOUR	Dark glossy green
YIELD POTENTIAL	Excellent
SEASON	Summer and autumn production
DISEASE REACTION (SCIENTIFIC)	<b>High resistance:</b> <i>Cladosporium cucumerinum</i> (Ccu), <i>Corynespora melonis</i> (Cm) <b>Intermediate resistance:</b> <i>Cucumber vein yellowing virus</i> (CVYV)
UNIFORMITY	Excellent
AVERAGE SEED COUNT	Sold on seed count
MARKETS / END USE	Fresh, pre-pack
POPULATION GUIDE	2 – 2.2 plants per m
SPECIAL FEATURES	Excellent yield potential. Smooth dark green fruit

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

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**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 CUCUMBER PRODUCTION

### Seedling production

It is very important to use healthy, vigorously growing seedlings. Use a suitable sterilised growing medium and seedling tray (128 – 200 compartments). Optimum temperature for seed germination is 20 to 25 °C. Seed germinates quickly and will produce a seedling with fully expanded cotyledons within 4 - 7 days. Seedlings should be transplanted directly into the bags when they have one true leaf. Check that the terminal bud is not damaged. Terminal bud damage results in a blind plant that should be thrown away. Check for pests and diseases like Pythium, Fusarium and Rhizoctonia. Moisten the growth medium before planting. Drenching the growing medium with a fungicide and insecticide can be of great advantage.

### Temperature

Air temperature is the main environmental component influencing vegetative growth, flower initiation, fruit growth, and fruit quality. Growth rate of the crop depends on the average 24 hour air temperature, the higher the average air temperature the faster the growth. The larger the variation in day-night air temperature, the taller the plant and the smaller the leaf size. Although maximum growth occurs at a day and night temperature of about 28 °C, maximum fruit production is achieved with a night temperature of 19 – 20 °C and a day temperature of 20 – 22 °C. In winter, night temperatures should not go lower than 12 °C.

### Light

Plant growth depends on light. Plant matter is produced by the process of photosynthesis, which takes place only when light is absorbed by the chlorophyll (green pigment) in the green parts of the plant, mostly the leaves. In the process of photosynthesis, the energy of light fixes atmospheric carbon dioxide and water in the plant to produce such carbohydrates as sugars and starch. Generally, the rate of photosynthesis relates to light intensity, but not proportionally. The lower supply of carbohydrates available in the plant during the winter limits productivity, as evidenced by the increase of aborted fruit. A fully-grown crop benefits from any increase in natural light intensity, provided that the plants have sufficient water, nutrients, and carbon dioxide and that air temperature is not too high.

### Relative humidity

High relative humidity generally favours growth. However, reasonable growth can be achieved at medium or even low relative humidity. The crop can adjust to and withstand relative humidity from low to very high but reacts very sensitively to drastic and frequent variation in relative humidity. Its sensitivity to such variation is

greatest when the crop has developed under conditions of high relative humidity. Other disadvantages of cropping under conditions of high relative humidity include the increased risk of water condensing on the plants and the development of serious diseases. The resultant low transpiration rates are blamed for inadequate absorption and transport of certain nutrients, especially calcium to the leaf margins and fruit. At low relative humidity, irrigation becomes critical, because large quantities of water must be added to the growth medium without constantly flooding the roots and depriving them of oxygen. Furthermore, low relative humidity favours the growth of powdery mildew and spider mites.

### Disease resistance definitions

**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.

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

**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.

**Immunity (I):** Not subject to attack or infection by a specified pest or pathogen.

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