

## FACTORS TO BE TAKEN INTO CONSIDERATION IN THE CULTIVATION OF GRAFTED TOMATO



### CAUTION 1

To carry out grafting, rootstock must be selected according to soil structure.

If the soil is water-permeable, sandy or silty soil, strong (medium strong to very strong) rootstocks with roots extending down to the base should be selected.

If the soil is waterproof, clay soil, medium strong rootstocks should be selected. With these selections it is intended to protect the plant health, fruit color and shape.

### CAUTION 2

In order to protect the fruit color and to prevent the fumagine and ToC viruses, whitefly combat should be undertaken starting from seedbed. Although resistant to TYLC (yellow leaf curl) virus, Azra F1 may also be potentially affected by the virus, depending on the whitefly population, or it may have an excessive virus density.

Growth of the plant continues, even if the highly virus-resistant varieties may have been infected by TYLC virus, however, this is slower than a normal non-infected plant. Further, during the fruit growth period, the whitefly, in addition to carrying viruses, affects, with its secretions, the color pigments and enzyme secretions in the plant depending on certain factors (weather conditions, very strong rootstock, soil-rootstock incompatibility, inhibitor and use of hormones).

As a result, non-homogeneous coloring and tough skinned fruit is formed.

Therefore, whitefly combat is of utmost importance.

### CAUTION 3

As, in grafts, there may be Fusarium infection in between crotches, SupKor-Cu or FOLKAR-K + CHEMICAL should be applied to the roots, and, besides, SupKor-Cu or protective chemicals should be used at 15-20 day intervals to prevent contamination of crotches.

The damage of contagion in the plant causes vessel occlusion, weakening the flow of water, nutrients and plant secretions to the plant. Thus, the number of flowers and pollination will be low. The fruit color turns lighter, and, further, the plant stem becomes hollow inside in dry weather (husk).

### CAUTION 4

During years of high humidity and temperature, bacterial infections are very intense. Of these, *Pseudomonas corrugata* (sputum) particularly causes a high rate of infection in the tomato plant stem, leading to problems such as receding fruit skin, pale fruit, and non-homogeneous coloration.

In order to minimize the contamination and damage caused by this disease, liquid copper should be applied starting from planting, excessive use of phosphorus and organic nitrogen should be avoided, and if organic matter is used, the amount of potassium should be increased.

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### CAUTION 5

Although grafted planting is carried out, it is recommended to apply chemical at least twice during the season through drip irrigation pipes in order to protect the roots from soil-borne diseases.

### CAUTION 6

Growth and development of the cultivars which are resistant to TYLC virus are fast, starting from the planting. For this, fertilization should begin 4-5 days after planting, which should be repeated at 1 to 3 day intervals depending on the weather temperature. When the plant reaches the 2nd and 3rd clusters, the drip irrigation pipes should be removed 5-6 cm away from the stem. Thus, root development is promoted. Hormone substances such as 'INHIBITOR' are not recommended for the plant during this period. Instead, it is recommended to slow down the fast growth of plants with frequent irrigation and fertilization. The sensitivity of the cultivars resistant to TYLC virus to hormones such as inhibitors may negatively affect fruit shape, color and skin thickness in the future.

### CAUTION 7

It is recommended to avoid from only water irrigation. It is recommended not to perform irrigation without fertilizer throughout the season.

### CAUTION 8

Bees are recommended for pollination.

### CAUTION 9

It is recommended to start intermediate irrigation during April according to the characteristics of the varieties. (Mix Calcium Nitrate: 15 kg / daa and Potassium Nitrate: 15 kg and sprinkle in the walkway). The frequency of intermediate irrigation and the amount of fertilizer may vary depending on the soil structure.

### CAUTION 10

Avoid high density planting. Depending on the structure (plant strength) of the cultivars, intra-row spacing should be minimum 50-55 cm and row spacing 90-100 cm.