

TECHNICAL SHEET

FBT1 (Winter Tomato): economically produce tomatoes during the rainy season

Presentation of the tomato

The tomato (*Solanum lycopersicum* L.) is a species of herbaceous plant in the Solanaceae family. It is an annual plant, although it is possible to harvest the same tomato plant during several years. If not pruned, the tomato is a bushy plant that can reach more than 2 m in height. The tomato requires a temperature difference between day and night of 6 to 10°C in order to produce a maximum of fruits. The optimal daytime temperature is 25°C and 17°C at night, but when temperatures exceed 30°C fruiting is difficult and stops when they exceed 35°C. In addition, the tissues of the plant are likely to be damaged if the temperature exceeds 38 °C or if it falls below 10 °C. There are varieties adapted to the hot and humid tropical climate, these varieties should be favored in your varietal choice for growing tomatoes in French Polynesia. (DAG, 2018)

There are two main types of plant growth: - **Determinate**: after emitting 2 to 8 clusters, the terminal bud becomes a floral bud. The axillary buds stop after 1 to 3 clusters, giving the plant a bushy habit. The industrial varieties and the varieties developed by the CDH belong to this group. - **Indeterminate**: there is no stop of growth of the main stem. Axillary buds must be removed to ensure good production. Staking is required to support the plant. (ISRA, 2012)

Tomato vegetative cycle

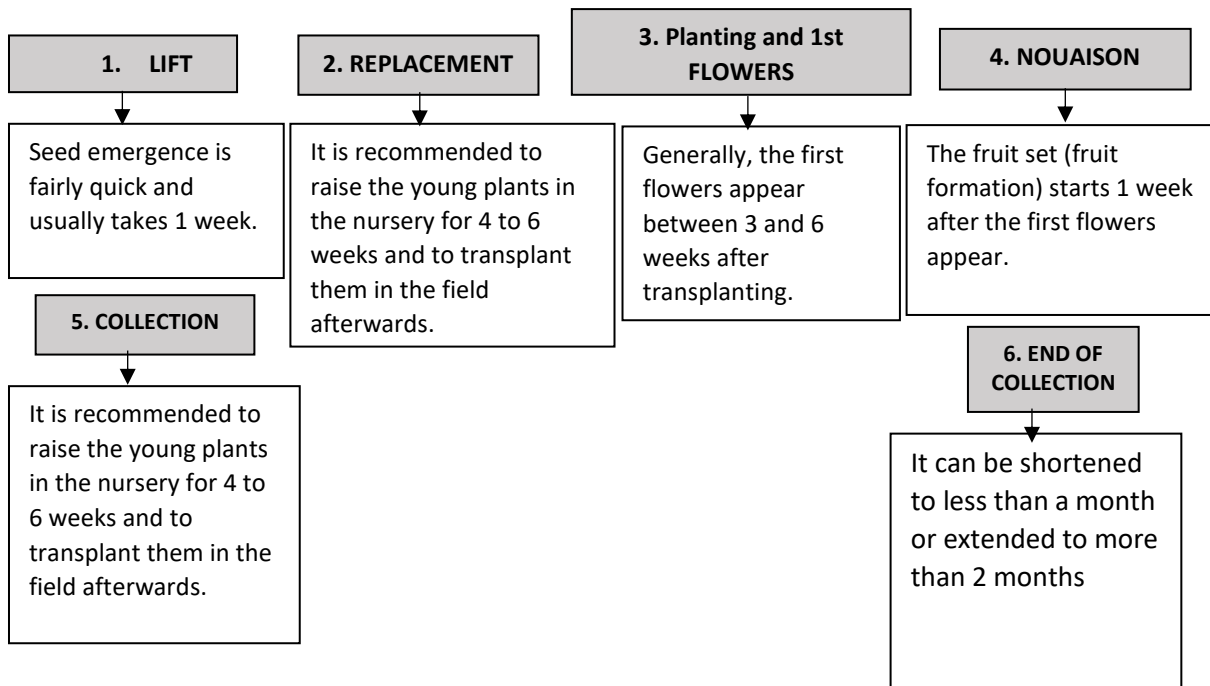


Figure 1 : tomato cycle (source : DAG, 2018)

Tomato structure

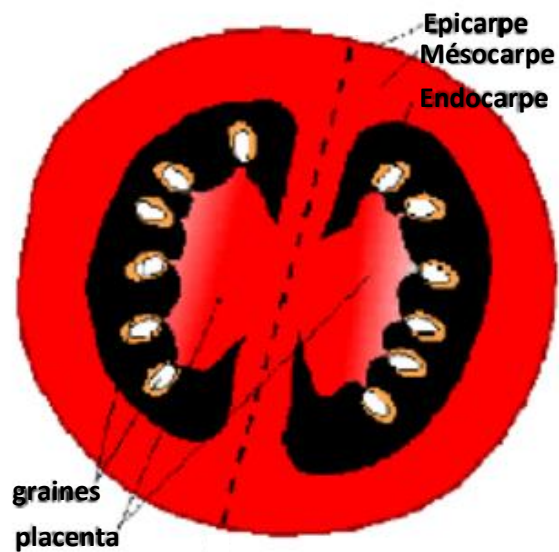


Figure 2 : Cross section of a tomato (source : AHISHAKIYE et AITAMOUR, 2010)

Characteristics of the technology

- Suitable for rainy season cultivation
- Good resistance to sunburn
- Good resistance to fruit bursts
- Cycle: 75 days :
- Yield: 38 T/ha

Bibliographic references

AHISHAKIYE et AITAMOUR (2010) : Valorisation de résidus de transformation industrielle de tomate : extraction et caractérisation de l'huile de graines de tomates ; projet de fin d'étude ; Université Saad-Dahlab de Blida ; Faculté des Sciences Agro-vétérinaires/Département des Sciences Agronomiques.

DAG (2018) : Fiche technique : La tomate - *Solanum lycopersicum* L. ; Direction de l'Agriculture ; Polynésie française ; 12p.

ISRA (2012) : Techniques de production de semences de tomate au Sénégal ; RADHORT PUBLICATION ; 19p.

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Host Institution: INSTITUT DE L'ENVIRONNEMENT ET DE RECHERCHES AGRICOLES (INERA); Host Country: Burkina Faso; Coordinator: Vianey Tarpaga; CNS MEMBER INSTITUTIONS: - Institut de l'Environnement et de Recherches Agricoles (INERA) - Institut de Recherche en Sciences Appliquées et Technologies (IRSAT); Email: tarwendp@yahoo.fr; Telephone: +226 70708061 / +226 75129039