

Tomato / *Solanum lycopersicum* (SOLANACEAE)

Tomato (*Solanum lycopersicum*, syn. *Lycopersicon lycopersicum*) is native to South America from Mexico to Argentina. Tomatoes are short-lived perennials cropped as annuals.



PLANTaGLOBE is your partner in tomato business

Uses

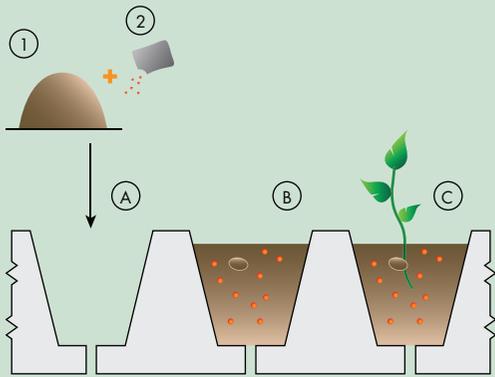
Majority of the total tomato crop is processed into juice, canned tomatoes, sauces, pastes, and ketchup. 25% are tomatoes for fresh market. Although most processing tomatoes are canned or processed into sauces and condiments, small percentages are also sold fresh or as 'sun-dried' tomatoes. Greenhouse tomatoes are generally indeterminate and can be cropped for 24 months or longer. Varieties used for commercial fresh market production outdoors are determinate. Fruit can be yellow, orange, pink, red, or even white.

Ecology & Planting

Tomatoes need 6 hours of direct sunlight to flower, temperature 10°C to 30°C with optimum range of temperature is 21–24°C. Tomatoes have a high water requirement but also have an extensive root system. With good growing conditions, plants should be given as much water as possible during vegetative growth. Tomato seedlings require 5 to 7 weeks at 20 to 25°C day and 15 to 20°C night temperatures to be ready for transplanting to the field. For staking of fresh market tomatoes within-row spacings are 40 to 75 cm and between-row spacing are 140 to 180 cm. Processing tomatoes and mechanically harvested fresh market tomatoes are often direct seeded. Average time from transplanting to harvest is for early cultivars: 50 to 65 days, mid-season cultivars: 70 to 80 days, late cultivars: 85 to 95 days. The yield is ranging from 5–20 tons per acre depending on tomato variety.

Mycorrhiza & Bio-fertilizers

Tomato belongs to plants with high dependency on mycorrhiza. Field application of mycorrhiza proved significant increase in total yield. When combined with bio-fertilizer, increase up to 15–20% in yield may be expected. Plants should be more resistant to soil borne diseases and drought. Application of mycorrhizal inocula may be also carried out at nursery stage or at field planting. Mycorrhiza was also reported to be able to increase significantly the content of beneficial carotenes and sugars in fruits. In the field mycorrhiza increases stability of soils and helps conserve nutrients in the soil profile and contribute to erosion control of intensively used agricultural land. Complex effects of mycorrhiza treatment result in increased sustainability of the planting field.



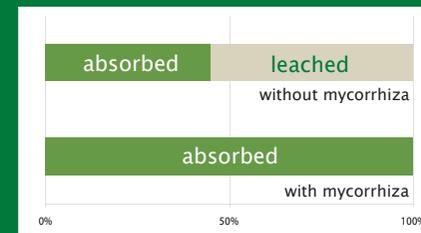
- ① Prepare a mix of substrate ① and Symbivit® ② and fill in the pot.
- ② sow a seed
- ③ the seedling takes advantage of Symbivit®

Application of Conavit within outplanting in the field.

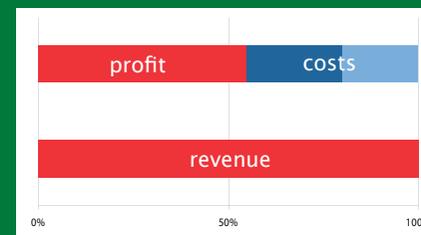


your current yield

potential yield with the use of mycorrhiza



potential efficiency of conventional fertilizers



potential profit and costs of bio-products

potential revenue

Make new progress in your tomato business

Products store in a cool, dry place; can be used for 2 years from production date if stored properly. Contains occurring fungi and is not toxic or harmful to the environment. Does not contain genetically engineered organisms, does not leave toxic residue in the soil. Recommendation is to refrain from using systemic fungicides within 3 following mycorrhizal inoculations. Majority of conventional herbicides, insecticides and non systemic fungicides do not inhibit development of mycorrhiza. Excessive application of superphosphates can reduce mycorrhiza efficacy.

PLANTaGLOBE®

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Recommended products:

Symbivit® - is an inoculating product improving growth and yield of majority of plant species. It is based on endomycorrhizal (arbuscular) fungi.

Conavit® - is ecological, long term, slow release fertilizer composed 100% natural components. Its high calcium content predestines the fertilizer to be used particularly in acid soils.