



Strawberry

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Strawberry (*Fragaria × ananassa* Duch.) is herbaceous perennial fruit crop known for its luscious, attractive and nutritious fruits having pleasant aroma and delicate flavour. Its fruits are rich in bioactive phytochemicals especially phenolic compounds with high antioxidant capacity also contain vitamins and minerals making the daily diet beneficial to human health. Fruits also contain a variety of phenolics, flavonoids and key nutrients such as potassium, phosphorus, calcium and iron.

Climate and Soil

Strawberry can be grown on a wide range of soils but thrives better on well-drained, sandy loam soil rich in organic matter. It is a shallow rooted crop with roots confined to 15-20 cm topsoil therefore heavy, clayey and waterlogged soils are not suitable for its cultivation.

Recommended Cultivars

Chandler, Winter Dawn, Sweet Charlie, Kemarosa, Osogrand

Propagation

Strawberry is propagated through runners. Good quality runners are produced in hilly regions as in plains the high summer temperature kills the plants. Protected cultivation gives raise to healthy runners.

Preparation of Soil, Plant Spacing and time of planting

Strawberry is planted on raised beds. The land is ploughed thoroughly and beds of 25 cm height and 105-110cm width are prepared with 40-50cm distance between the beds. The basal dose of manure and fertilizers are added. Healthy well rooted runners are planted on the bed at a spacing of 25-30cm during cool hours of the day. Irrigate after transplanting of the runners. The time of transplanting planting strawberry is mid-October. Strawberry seedlings should be transplanted by keeping plant crown slightly above the ground level for proper establishment in between the dripper lines and for the proper distribution of fertilizers and irrigation water.

Mulch

Cover the beds with silver-black polyethylene mulch of 30 μ thickness to improve fruit yield and quality. It protects the plants and their roots against extreme temperature fluctuation, suppress weeds and helps to conserve soil moisture.

Use of low tunnels

Strawberry plants should be covered with low tunnel transparent plastic sheet (50 μ thickness) over the iron frame at center height of 60 cm from end-December to mid-February to minimize winter injury, plant mortality and enhancing productivity. Keep the distance between the successive frames at 2.50 m.

Drip Irrigation and Fertigation

Strawberry requires light and frequent irrigations to maintain optimum soil moisture for quality fruit production. Fertigation through drip irrigation system tends to distribute the plant nutrients uniformly in the root zone, where the most of active roots are confined and thus enhancing the nutrient use efficiency. Adequate water supply is essential throughout the cropping season, particularly during plant growth and fruit development stages. Strawberry is highly susceptible to excessive soil moisture. In general, combinations of polyethylene mulch and fertigation considerably promote plant vegetative growth and enhancement of fruit yield.

Harvesting and Marketing

The fruits are harvested with the caps and calyx and small the stalk during morning hours. Strawberry fruit is highly perishable and non-climacteric and care must be taken during harvesting, handling and transporting. The berries are harvested when 50- 75% ripe depending on the distance of market from the field. Fruits are packed in punnets after grading and sorting of diseased, damaged and misshapened fruits.