

Plant '25

Erica Pate, Fruit Crop Specialist, OMAFA; Adam Dale, College Professor Emeritus, University of Guelph

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Many factors go into a well planted strawberry field. Site selection and site preparation begin months ahead of time, followed by cultivar selection and plant orders. Then, once plants arrive, they need to be handled and stored properly for good field establishment. Many strawberries in Ontario are grown on raised beds or on table tops. However, if the plants are to be put straight into a prepared field for June-bearing, matted-row production, a few simple procedures should be followed. Following these suggestions will help to ensure that a flourishing crop can be harvested.

Strawberries should be planted in early spring as soon as the ground is workable, in April or May. The earlier June-bearing strawberries are planted, the sooner they will produce runners, which contribute to next season's yield. Ideally, plants will arrive as close to the planting date as possible. However, unpredictable weather or other factors may delay planting, and plants may need to be stored for a few days or weeks before they can be planted.

When plants first arrive, check the roots for moisture; keep the roots moist but not overly wet. Discard mouldy plants. Keep plants in cold storage in the plastic bags they were shipped in until they can be planted. Keep temperatures around 0°C for up to 4-6 weeks of storage. Do not let storage temperature drop to -2.7°C, as this may injure the plant. Do not let plants heat up or dry out while being stored, and do not leave plants in water.

If plants are frozen upon arrival, open the boxes and begin to thaw out the plants before planting. If frozen plants have thawed while in transit, do not re-freeze them; instead keep them in cold storage above freezing.

June-bearing strawberries should not be planted after July 1st. Plants kept in storage for too long lose vigour, rows will not fill in with daughter plants, and flower bud initiation will be limited. If a late planting date cannot be avoided, consider planting at a higher density to anticipate poor runner establishment.

Frost in the forecast?

If cold, below freezing, temperatures are forecast for the days following the anticipated planting date, hold off until temperatures warm up. Damage to the crowns can occur if temperatures drop shortly after they are set in the field. If plants have been in the ground for a few days before a potential frost event they will tolerate cold temperatures

better than a freshly planted field. Moist, dark soil holds heat more than light, dry soil, and packed soil holds more heat than recently cultivated soil. Make sure newly set plants have good soil contact, and irrigate to add soil moisture before a frost event.

Planting:

Dormant strawberry plants can be soaked for an hour before planting, which allows plants to absorb some water. Make sure roots do not dry out during planting- keep boxes covered and in the shade until they go on the planter. Temperatures inside plastic bags left in the sun can warm up quickly and damage plants. Don't plant on sunny, windy days. Cool, cloudy days limit the stress on the plants.

Set strawberry plants at the correct depth, where the soil is even with the midpoint of the crown, and the roots are straight down into the planting hole. If planted too deep and the crown is covered with soil, plant growth and runner production can be delayed; if set too shallow, the roots and crown will be exposed and dry out. Irrigate after planting and make sure the soil is gently packed around the plant.

Dormant bareroot plants need to be handled and stored properly to establish a new, vigorous, field, and efforts made at planting will pay off for the years to come.

References:

Lieten, P., B. Evenhuis & G. Baruzzi, 2005, Cold Storage of Strawberry Plants, *International Journal of Fruit Science*, 5:1, 75-82



Figure 1. Newly planted field.