

Day Neutral Strawberries: Making it Work

David Pike
115 Mt. View Rd.
Farmington, Maine 04938
(207)778-2187
dcpike@beeline-online.net

With the recent release of new day neutral cultivars, we have the potential of providing fresh strawberries for 4 to 6 months instead of 1 month for short day-length varieties. Although day neutrals have been considered best for cooler climates, success is being observed from the Carolinas into Canada. The best production systems are still a work in progress. Following is a brief synopsis of the several systems that have succeeded on this farm.

Year #1: Varieties that do well for this area are: SEASCAPE, ALBION and SAN ANDREAS. Other varieties are PORTOLLA, which is light colored and lacks the flavor of the above varieties, and MONTEREY, which hasn't been tried on this farm as yet. For best yield, planting should be early May in this area. Plasticulture is preferred over matted row, as it reduces weeds and soil is warmer in the late season. Plant on crowned raised beds with drip tape buried at time of shaping and laying plastic. Bed size is best determined by equipment available. Broadcast dwarf perennial rye grass (living mulch) after plastic is laid and the ends are dressed. Rot till the grass seed for improved germination. Punch marks are made every 13 in. in plastic for plant location. Planting is done by hand with a planting tool, using dormant bare-root transplants. Grass is mowed, as needed, with mulching lawn mower. Edges can be mechanically trimmed or band sprayed with SCYTHE or AVENGER herbicide using a shielded sprayer. Remove early blossoms prior to mid-June to encourage crown development. Remove runners during growing season to allow maximum plant growth and more branch crowns. To reduce heat stress during July and August, the plastic can be sprayed with REFLECTIVE, a coating of calcium carbonate. That should mostly wash off by the end of summer during rain storms, re-exposing the black plastic for improved fall production. Normal harvest season in Maine is from mid-July to late October. Season extension is accomplished by using wire hoops and 1.2 oz. (or heavier) floating row cover(FRC). With FRC placed over the wire hoops, losses will be reduced during heavy rain storms, as the row cover will shed rain considerably. A low cost low tunnel may offer more protection. This is being tested by several growers and may be the way of the future. At the end of the harvest season remove the hoops and re-cover with FRC after plants go dormant. Now it's time to sit back and "LET IT SNOW-LET IT SNOW"!

Year #2 Since production now becomes more complicated, two different systems are possible.

A Review previous year results and make revisions as needed. Put in a new planting in year #2 and continue through harvest as per year #1 outline.

B The previous year's over-wintered planting will provide an early spring crop. Remove FRC, clip dead plant material and sweep the beds. Reset the wire hoops and replace the 1.2 oz. FRC to promote earlier spring crop. Set up drip system to fertigate and sprinklers for added frost protection. During early bloom, slip FRC to the side to put on protective and foliar sprays. Harvest should start one to two weeks ahead of short day-length strawberries. Now a decision must be made to either treat it as an annual system and destroy the bed or renovate to get a summer and fall crop. If renovating, mow the plants and cut off excess plant debris as soon as the

short day-length crop starts to produce. Note: SEASCAPE does not respond as well as ALBION or SAN ANDREAS to renovation. While the short day-length plants are producing, the renovated plants are rejuvenating and will be producing shortly after the short day-length varieties are done. If managed properly, the berry size will be about 60-75% of the new planting's berry size. Leaf analysis is important for detecting nutrient deficiencies in order to maximize size and quality. At the end of the harvest season, pull out the plants or spray to destroy them and clean up the bare bed for a 3rd year of production.

Year #3 Since the year #1 plants were destroyed the previous fall, this bed can now be recycled to obtain another two years of production by placing new plants in between the old plant holes. Using a hand tool, make a slit about 2 inches inward from where the new plant is going to be and insert 15 to 25 gm of slow-release fertilizer or composted chicken manure. Be careful not to puncture the drip tape. Place new plant about 2 inches from fertilizer to prevent burning. It may be necessary to hand weed where the old plant was or spot spray with herbicide. Continue with this planting as outlined in years #1 and #2.

The new bed in year #2 will be harvested early and renovated as outlined in year #2 **B**. The life of a bed is 2 years if renovated and 4 years when it is recycled, providing income from the same bed for up to 4 years.

Summary:

Experimenting with Low Tunnels

Low tunnels are fairly expensive but may be economical because the bed is productive for four years. In the year of planting, the tunnel can be installed after the crop is established and before autumn rains. The tunnel, which is easily set up and taken down, can be used for the life of the bed (4 years). During rain storms the tunnel will be cost effective because of fewer reject soft berries. To reduce heat stress losses the Reflective coating can be applied prior to the tunnel installation. Plastic along the sides is rolled up for harvest and air flow and closed for severe winds, rain and cold temperatures. FRC can be placed over plastic for improved frost protection. A misting system tube can be installed along the ridge pipe of the tunnel frame for foliar and protective sprays. Landscape fabric can be placed between beds for a clean walking pathway.

Plug Plants

Small growers can make their own plug plants by taking off runner tips in early August. Place potting soil in tray and push tip into medium and mist several times a day until rooted. This can be done outdoors or in a protected greenhouse. In early September the plug plants can be planted. Remove blossoms prior to dormancy and later apply FRC for winter protection. This system should provide a great early spring through summer crop.