STARTING THE BERRY PRODUCTION SEASON

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As the strawberry season gets underway, growers are thinking about marketing their berries. One of the major limitations for northern growers is the short harvest season for most berry crops. Supermarkets, in particular, prefer to work with suppliers that can provide them with product on a year around basis, if possible. Even if one markets directly to consumers, e.g. PYO, short harvest seasons are undesirable because one or two rainy weekends during a three week strawberry harvest can be disastrous. A number of approaches are available to extend the season, and while they offer the opportunity to expand markets, the economics may not be favorable depending on costs and prices. A few of them are covered here; however, growers should carefully consider the additional costs and likely returns *before* implementing a new technique.

Planting dates: Berry crops are perennial, so one typically does not consider the effect of planting date on season extension. However, where summers are cool, it is possible to stagger the planting date of strawberries, allowing them to fruit in the planting year, and harvesting them throughout the summer. Plants are specially grown in the nursery the year before transplanting so they will attain an adequate size for fruiting the following year. This usually involves higher rates of fertilization and runner removal. Plants are cold-stored after excavation from the nursery bed, and transplanted into production fields at high densities from May through July. Plants produce fruit within about 60 days. This technique is called the "waiting bed." These plantings revert into a matted row in subsequent years. Unfortunately, when the summer is hot, waiting bed plants perform poorly.

Environmental modification in the field: Modifying the climatic environment of a field of plants can be challenging, and there are a limited number of techniques available to achieve this. Two of the most common are mulches/groundcovers and row covers.

Straw mulch is applied over the strawberry planting in early winter to protect plants from winter injury. The straw is raked from the plants in early spring just before the plants push in the spring. Research has shown that straw should be removed soon after snow melts and the danger of severe cold temperatures is past. Usually this is late March in New York State. The additional light that the plants receive in early spring is extremely beneficial for growth and productivity. Growers concerned about cold temperatures can use a rowcover to protect plants after the straw mulch is removed. In Vermont, researchers removed straw in mid-March, mid-April and mid-May in each of 3 years. In each year, yields were highest with the earliest straw removal date. Similar results were obtained in New York.

Straw Mulch: Delaying straw mulch removal in early spring will also delay flowering and fruiting in strawberries, but it will also reduce yields. We do not recommend this practice in New York.

Row Covers: Row covers are perhaps the most effective method of accelerating flowering and fruiting in strawberries and primocane-fruiting raspberries. For strawberries, the straw mulch is removed from the plants early and replaced with row cover. As a general rule, March is an appropriate time to remove straw and apply the row cover. If snow still covers the planting, then obviously it is best to wait until melting has occurred. Similarly, if unseasonably cold weather persists in early March, then one should wait for warmer weather before removing the straw. The covers should be removed soon after flowers are observed. Without wind or bee activity, pollination will be reduced and fruit will be deformed. If cold temperatures (<30F) occur when the covers are still in place and flower trusses have emerged, water can be applied directly over the covers for frost protection. 'Earliglow' will fruit as much as 10 days earlier when rowcover is used, especially when the spring is cold and sunny.

For primocane-fruiting raspberries, rowcovers are applied in early spring as soon as snow melts

and last year's canes are removed from the planting. Allow room under the covers for cane growth. Remove covers when canes are 18 inches tall. This practice accelerates harvest of Heritage from 10 - 14 days, and offers some degree of frost protection for new canes in early spring.

Various companies manufacture covering materials. The most useful have been lightweight (0.5 to 1.2 oz. per square yard), spun-bonded materials with sewn seams. The cost ranges from $800 - $1700 per acre. Although this may seem expensive, if prorated over several years, the cost is not that great. A higher price for early berries and generally higher yields make row cover use a profitable choice for many growers on at least a portion of their acreage.

Black Plastic: Strawberries can be planted through black plastic mulch to achieve earlier fruiting in spring. However, runnering presents a problem because they cannot root through the plastic. Runner removal is expensive and this represents a loss of energy for the plant. Some growers in warmer climates are experimenting with late summer planting on black plastic to avoid the runnering which occurs during early summer. However, this technique is riskier in more northern areas because the weather may not be conducive for fall growth and the probability of early spring frost is greater.

(Reprinted from: New York Berry News, Vol. 3 No. 3, March 15, 2004.