

BEANS, BEANS, BEANS

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\ We have been growing snap beans and mechanically harvesting them on Gove Farm since 1992. We have tried to develop the simplest system possible for us to provide a continuous supply of high quality beans for our farm stand from mid July to late October.

Site Selection:

We prefer a site with drier soils, since we can irrigate, as opposed to an area with wet spots which is inviting for disease problems. We plant our first beans on May 15, which is usually not a problem for frost in this area, by the time the plants emerge. I do look at the site from a frost perspective in the Fall, so if I am double cropping beans (which is typical), I plan on the second or third planting to be in the best frost free site for the second crop (planted on that same land) which will be maturing in October.

There are also other possibilities for using beans as a second crop. Sometimes we are running out of land in early July, and we are picking early sweet corn a week before the first beans are ready. We have successfully grown a crop of beans on early corn land, but we have also had some failures. Until 2007, I used Atrazine and Dual at very low rates, but this year I added Calisto, and definitely had some injury from herbicide carryover. Other problems in the past have been too high a fertility level for the beans, producing plants that are too vegetative.

Soil Preparation:

Traditional plowing and harrowing is what we do for soil prep, and we fertilize lightly according to soil tests if needed. We use a lot of chicken manure on the farm, and tend to be cautious of areas that were heavily manured the previous year. Growing beans for machine harvest we have found it is better to keep the plants on the hungry side to prevent too much plant growth. Weed control is extremely important. We incorporate Treflan and Dual at the recommended rates. Using a flexible drag pulled behind the sprayer. I also try to weed spray for three plantings at once, but then drag the soil just before each planting.

Planting:

Plant spacing is important for machine harvest; we like to aim for plants two inches apart. For seeding we use an old John Deere flexi planter. Timing of plantings is important to insure a constant supply of beans at harvest. Early in the season I plant once a week or earlier if the plants are emerging. Later in the season I try to plant the day the beans are fully emerged, which could be as soon as four days from planting.

The bean varieties that work the best for us are Gold Mine for the yellow, Ambra for the mainstay of our green beans, and Savannah for a dark green bean.

Growing:

Cultivation is usually done twice per planting, sometimes at the same time we side dress with Calcium Nitrate if the plants look too hungry. Keeping all the weeds out is important for successful machine harvest.

Pest control is usually limited to spraying for potato leafhopper in June, referring to New England Vegetable Guide for insecticide choices. Sclerotinia can be a problem, but we try to minimize this through site selection and plant spacing.

Harvest:

We have had a Pixall single row pull behind bean harvester for 15 years. Without a machine, we would not grow beans. We grow a total of about four acres of beans, and find that machine harvest is the only way to efficiently pick the quantity that we need. We usually pick in the afternoon, when the plants are dry, and the beans are a little more flexible. We pick into plastic bins, and on a good day, harvest about one bushel per minute.

Postharvest:

A vibratory sorting table and a white flat belt conveyor are used for the grading process. We store and sell the beans from the green plastic bins, and sell all of them at our farm stand. Usually we are selling beans that are yesterday's or today's, but depending on the circumstances, we have successfully held beans in the cooler for up to ten days (the last picking in October). Starting with a good product going into the cooler is the first step in keeping them for any length of time.