

Storage and Fresh Market Carrot Production at River Berry Farm.

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We have been growing carrots (certified organic) for fall and winter sales since 1994. We grow two to three acres of carrots that are marketed from October through March and sold primarily to local accounts in the Burlington, VT area.

Production Methods

Pre-Plant Preparation

Carrot fields typically have a cover of winter rye and hairy vetch that is mowed and disked in late May to early June. If there is no cover crop the ground is spread with compost and oats planted in the spring. Oats are then disked in June,

Beds are shaped with a pan bed shaper with chisel plows that are mounted in front of the press pan. The chisels are set where each row is planted so that the soil is friable to a depth of 10 to 12”.

Varieties – we primarily plant Bolero (Nantes type carrot) and some Sugar Snax or Navajo (Imperator type). We also plant some specialty carrots (purple haze, solar yellow, rainbow). Bolero is the preferred carrot for flavor, and yields extremely well.

Planting

The beds are prepared one week before planting. The carrots are planted with a stanhay belt seeder and seeded with pelleted seed, 17 in. between rows. Belts are punched with three lines so plant density is approx. 30 seeds per ft. We start planting the last week of June, and plant until approx. July 20th. We plant ½ acre per week. This allows us to keep the hand weeding at a manageable level, as well as giving us time to replant if we have poor emergence. Plantings are overhead irrigated as needed

Weed Control

Approximately 6 days after planting the beds are flamed with a tractor mounted flamer. The carrots are cultivated 3 to 4 times with a budding basket weeder. Carrots are handweeded (on hands and knees) 3 weeks after planting. Depending on weed pressure, carrots will be walked (handweeding) a second time. Once carrots are too tall for basket weeders we use vegetable knives.

Fertilizers – We sidedress with a 5-1-9 custom blended fertilizer from North Country Organics. Rate is 35#/ per 500ft. bed (equivalent of 500#/acre).

Diseases and Pests- We practice good crop rotation with a minimum of three years between crops. Primary field disease is Alternaria on the tops. We have primarily gone with use of resistant

varieties. Carrot Rust Fly can be an issue but usually is not a major problem. We attribute this to our later season planting time.

Harvest – We typically start harvesting early October and often will harvest into mid Nov. We want the carrots to be exposed to much cold temperature so as to increase the sugars. Customer demand for our carrots is primarily because of the sweet flavor. This is largely due to late fall harvesting.

We harvest our carrots with an older FMC one –row carrot harvester. We have been using our machine for 17 years now. We rebuilt the conveyor system so it puts the carrots directly into a 20 bushel bulk bin. The most important aspect with using a harvester is growing varieties with strong tops. While the harvester does require a fair bit of maintenance, the time saved in harvesting is unbelievable. A 500ft. row can be harvested by two people in about 2 to 3 minutes

Postharvest Storage – Carrots are stored in bulk bins unwashed. Wooden bins are wrapped with plastic shrink wrap, plastic bins are unwrapped. Tops of bins are covered with either cardboard or grain bags. Coolers are kept near 32 deg. Carrots are regularly misted to keep humidity up. We use greenhouse misters that are mounted on the ceiling of the cooler. Once the temperature of the carrots is brought down, the cooler is set so the evaporator fans only run when the compressor runs. This reduces the drying aspect of the fans.

Packing and Marketing - Carrots are washed in a barrel washer and then packed into perforated polyethylene bags. We have found that they will store up to a month in the bags. We sell in bulk 50#, 25# and cellos of 5# and 1# bags. Juicers (broken carrots) are sold bulk and in 10# bags, at usually half the price. We use Tri Pack tip scales for weighing cellos. Carrots are primarily sold to our local Coops. We shoot for providing carrots through March and sometimes into April.