

GROWING FOR MARKET

news, advice and resources for market farmers



Grow great onions - Part Two

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Last month, we told you how to choose onion varieties and start seeds in the greenhouse or a seed bed. This month, we'll tell you what's recommended for planting, harvesting and storing onions. As we mentioned last month, onion plants usually perform better than onion sets. Sets are more likely to bolt from temperature fluctuations, and the bulbs of set-grown onions are often harder to clean up. Large onion sets are prone to produce a lot of doubles or splits, which are less marketable; planting sets more than 1.5 inches deep also increases the number of doubles.

The best onions are seed-grown. They can be direct seeded in the field where they are to grow, direct seeded into a seed bed, where they will be separated and planted out later, or seeded in the greenhouse. By March, growers in most parts of the country should be thinking about direct seeding in the field or buying plants if you haven't already started your own.

Whether you start with sets or plants, field preparation is equally important. About three to four weeks before you intend to plant outside (The usual onion planting date is four to six weeks before your frost-free date, but check with local Extension for recommendations.) you should deep turn the soil, burying all litter at least 8 inches deep. You want a field with no organic matter near the surface, because one of the worst onion pests, the onion maggot, is attracted to decaying organic material.

Onions require a soil pH between 6 and 6.6, and they are heavy feeders, so request fertility recommendations along with a soil test. Don't plant onions in the same place more than once every four or five years.

In most soils, you should make a 6-inch high bed to allow good drainage, and irrigate the beds to firm them a few days before planting. Direct seeded onions should be planted 1/2 to 3/4-inch deep at a rate of 8 to 12 seeds per row foot. If you want to direct seed and transplant later, you can plant 60

seeds per linear foot and grow them until half the diameter of a pencil before transplanting. When transplanting, you can trim up the plants for easier handling. Clip the tops to 4 inches of foliage, and the roots to 1 inch, and they'll do fine. Plant them about 4 inches apart and about 1 inch deep. Don't plant too deeply, or you're inviting disease problems later.

Once the onions are planted, you've got to keep the top 3-4 inches of soil moist for a few weeks. The stem plate, which is the flat spot on the bottom of the bulb where the roots emerge, can't be allowed to dry out. Success with onions depends on keeping the roots growing quickly. Depending on your soil type, you may need to water daily. Once the onions begin to bulb, they'll need an inch of water a week until maturity.

Onions are one of the crops least able to compete with weeds, because they have so little foliage and because they need so much water so close to the surface. Plant in rows that enable you to shallow cultivate, then hand weed between plants. Obviously, the fewer weeds you have in your fields because of cover cropping and weed control in previous years, the easier onion growing will be. As the onions grow, they will push out of the ground. Many people mistakenly think they need to hill up the onions to keep the bulbs covered, but research shows that isn't necessary, says Jan Dawson of Jandy's in Bellefontaine, Ohio. As long as the roots are still well anchored in the soil, the bulb won't be harmed by being above ground. "By the end of the season, our onions are sitting on top of the ground," Jan says.

When 10-20% of the tops fall over, the onions are ready to be harvested for fresh eating. Wait until 25-50% of the tops have fallen over if the onions are for storage. About a week before harvest, withhold water if possible to allow scales to form.

In the South, where onions have been fall seeded and grown over the winter, they develop huge root systems that need to be undercut to stop feeding the plants before they are harvested. Spring-seeded onions are more shallow rooted and can be pulled. In either case, you should trim the roots and necks in the field. Then you can pack the onions in burlap bags, or put them in a cart covered with burlap, which prevents sunscald, to let them cure for two to five days, depending on the humidity. The point of curing is to dry the neck tissues where the top was cut and allow the outer scales to dry a bit. Don't let the onions cure any longer than necessary, or they will start to decline.

Many people assume that onions are tough because they are hard, so they toss them into the cart or harvest container. But research shows that bruising at harvest or post harvest is the chief cause of deterioration of storage onions. Handle them gently, as you would any other type of produce.

Onions should be at least 2 inches in diameter. USDA classifies large or jumbo onions as having a diameter of at least 3 inches, and colossal onions as having a diameter of 3.75 inches.

Onions should be stored at 40 to 45°F. For long-term storage, humidity is also an important factor, and you should aim for 64% humidity.

By choosing several varieties, harvesting at the right time, and storing carefully, you should be able to sell onions for many months of the year. They may even become one of your best selling crops. Several states have excellent publications on commercial onion production, particularly Georgia, New Mexico, North Dakota and North Carolina. You can find those publications by going first to the Links page on www.growingformarket.com. Then choose Plant Facts Database, which takes you to the Ohio State search engine. Type in "onion" and you'll get links to hundreds of onion publications.

You're sure to find something from a state close to you that will give you even more pertinent details to help make your onion crops a success.

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