Curing Sweet Potatoes

Those of you growing sweet potatoes will begin to harvest soon and I thought it might be worth mentioning a few tips for harvesting, curing and storing your roots. The one thing that I have to continue to remind myself of is that sweet potatoes are nothing like your standard Irish potatoes. In fact, they have very little in common. Sweet potatoes are much more delicate and require more attention when harvesting and storing.

Sweet potatoes can be dug at any time roots reach a marketable size. With this year’s hot, dry growing season, the roots should be decent size by now and ready to harvest. It is very important not to let the roots get exposed to cold temperatures (less than 50°F). I know that some areas have already gotten their first light frost and the nights have been into the 40’s in some areas so it is time to get digging. Sweet potato vines can be hit with a light frost, but when roots are exposed to prolonged colder temperatures, they can form an internal white ring of tissue which really decreases the quality of the root. The roots will not store as long or taste as good. That is also why we recommend storing sweet potato roots at or around 55°F.

One good thing about the dry weather the last couple of weeks is that it is ideal for digging sweet potato roots. Drier soil reduces the chance of soft rot bacteria invading wounds on the roots as they are dug.

Mowing or cutting the vines will help make the harvest go easier, but it will not help “set” the skins or “toughen up” the skins as it does with regular Irish potatoes. You can mow and dig sweet potatoes the same day and the skins would be no different than if you cut the vines two weeks prior to harvesting.

If you are using a mechanical digger such as a potato digger to harvest your roots, make sure you run the chain as slow as possible and carry as much dirt up the chain as possible to reduce the amount of bouncing that occurs. The sweet potato has a thin, delicate skin that is easily broken. Any cuts, bruises, or skin abrasions will reduce quality and storability significantly. It might even be worth taking the shakers off of your digger to reduce the amount of bouncing of the roots on the rods. The longer the chain, the more dirt that can sift down through the rods exposing the roots which can then allow workers to pull the roots off the digger before they are put back on the ground. This would eliminate one more potential bruising opportunity.

If possible when picking up your sweet potatoes, use some kind of slotted crate or small bin (apple bins, milk crates etc.) that will allow air to flow through them. Instruct your workers to gently place them in these containers. If picking up with buckets and dumping into bins, reduce the distance the roots have to fall as much as possible. This again will help reduce cuts and bruises.

Do not wash your roots until you are ready to go

(Continued on page 2)
Onions: Harvest and Curing Tips for Best Quality

While many farmers have already pulled onions and are curing them in the field or in a greenhouse or barn, others still have onions growing in the field. Once pulled, there are still several steps till onions are safely stored for fall and winter sales.

As onions mature, their dry matter content and pungency increase, with a resulting increase in storage potential. Onions are ready for harvest when at least half the leaves are dead. Pull the bulbs by hand, or use equipment such as a potato digger or undercutter to cut the roots and lift the bulbs. If you wait until all the leaves are dead and dry, it’s likely that the outer skins will be loose rather than firm. This may not hurt the keeping quality, but the onions will not look as nice. However, pulling too green will make it difficult to cure them well.

Harvest when the weather is dry; harvesting after a rainfall or when the humidity is high increases susceptibility to postharvest disease. There may be instances when leaves are declining in quality due to insect, disease or growing conditions and the crop is not growing, but necks are still green. In this case pay special attention to curing under optimum conditions until necks are dry and closed.

For optimum storage quality, onions must be cured soon after harvest. Optimum conditions are 68-86°F and 70% relative humidity for at least 12 to 24 h. Curing decreases the incidence of neck rot, reduces water loss during storage, prevents microbial infection, and is desirable for development of good scale color. Curing can be done in the field, preferably when the weather is warm and dry. If it rains, let them dry fully before handling – don’t handle the bulbs when they are wet. A greenhouse or hoop house also provides good conditions for curing. Temperatures in the 80’s will enhance the bronze color in the skins. Sunshine is good as long as it is not too hot. Extremely hot sun, with temperatures in the 90’s, can produce sunscald. Onions curing on a sandy soil or black plastic will get hot quicker than those lying on a heavier soil. In a greenhouse, temperatures should be held below 85 degrees F, which will probably require leaving everything wide open. Using a black shade curtain over the house can help moderate temperature. Ensure good air movement. Curing is complete when the neck is completely dry and tight. If the neck remains open, it allows entry of pathogens such as Botrytis neck rot.

The next step is topping. Mechanical onion toppers are essential for larger plantings. For the needs of a small diversified farm, they are probably best obtained second-hand. Check your favorite used equipment dealers! Onions can also be topped by hand using clippers. Handle gently to avoid bruising. Avoid cutting tops too close to the bulb, especially if there is any chance of disease entering bulbs from the leaves. Leave 2-3 inches of...
Cross Striped Cabbageworm Move Northward

This week, UMass Vegetable staff found cross-striped cabbageworm both in Worcester and in Norfolk Counties. This insect (Evergestis rimosalis; Lepidoptera: Pyralidae) has gradually extended its range northward.

Cross-striped cabbageworm (CSC) is closely related to European corn borer, and the adults are similar in shape and coloring – straw colored with a little purple and crossed by wavy lines. Since it flies at night, you will likely only notice the caterpillars and their damage. The clusters of 3 to 25 eggs are yellow, flattened, and attached to the lower leaf surfaces. The caterpillars are light bluish-grey on top and green underneath, with numerous black transverse bands across their backs and a yellow line down each side. Larvae grow to 3/4"-long in 2 to 3 weeks. There are 2-3 generations per year, but generally it’s only in late summer that numbers reach damaging levels. Crop Injury. Larvae either produce small holes in leaves until only veins remain, feed in terminal buds and sprouts, or burrow into heads. Plants with larvae are often completely skeletonized. Adjacent plants may be left undamaged.

Controls: Plow under debris after harvest and control wild mustard and Shepard’s pursel to help minimize pest population. Spray if 5% of the plants are infested with CSC. Use selective insecticides to preserve parasitic wasps. Selective products include Bt aizawai (Xentari), Bt kurstaki (Dipel DF and many other trade names), chlorantraniliprole (Coragen), emamectin benzoate (Proclaim*), indoxacarb (Avaunt), methoxyfenozide (Intrepid 2F), and tebufenozide (Confirm 2F). UMass Vegetable Notes, August 23, 2011

Harvest Tips for Best Quality

1) Be sure onions are well dried and necks are tight (i.e. the tissue does not slide when you roll your neck between your fingers) before topping. Bacterial diseases and Botrytis Neck rot can move through green tissue into the bulbs. These diseases do not move in dry tissue.

2) Leave 2-3 inches of neck on the bulb. This increases the distance from the cut surface to the bulb for these pathogens to travel.

3) Minimize mechanical injury during harvest & topping. Reduce drops to 6” and pad sharp surfaces. Bruises provide direct entry points for diseases to get started.

4) Grade out damaged onions before putting them into storage. Damaged bulbs give off moisture, which is favorable for development of diseases in storage.

**Berry Update**

**Recommendation for Fall Raspberries Infested with SWD**

As quickly as SWD populations rose during the last few weeks, they seem to be dropping possibly due to the cool fall weather. Regular spraying (3-7 day spray schedule) has reduced infestation to bearable levels. There is a lot to learn about this insect and I feel that there will be information forthcoming this winter to help growers develop a better strategy for 2013.

If you decided to forgo spraying for SWD and are considering mowing primocane raspberries early, STOP!!! There is no evidence that mowing canes early will actually have any impact at all on 2013 population or pressure from Spotted Winged Drosophila. What we DO know is that mowing those canes now, before they can adequately move carbohydrates to the crown of the plant, will have a serious negative impact on the ability of the raspberry plant to successfully winter in our climate. Carbohydrates move from the leaves into the crown during the fall, then back up from the crown into the buds in the spring. Removing canes early essentially removes the stored food available to the canes and can result in winter injury or weak canes the next year. Conversely if you wait until the spring – say March – and it turns warm quickly (like this past spring) the carbohydrates will move into the buds and then you remove those canes with the stored food leaving the new canes with no reserve.

The best time to remove canes on fall bearing raspberries is from December to February when most of the carbohydrates are in the crown of the plant. Prune the old canes as close to the ground as possible so that the buds for new canes will break below the soil surface. If you don’t do this, the fruiting laterals may form on the remaining cane and could be very low, unproductive and at risk of insect and disease.

If you are trying to reduce the population of SWD, you can top the canes, removing the fruiting bracts to discourage berries that would harbor SWD. This can be done anytime. Our recent frostory weather may have taken care of it for growers in some areas.

As for spraying the topped canes, there is no information to indicate that this is a good strategy and may likely be a waste of money and time. This also applies for spraying fruiting plants in hedges. Both of these strategies are considered illegal pesticide applications and should not be done. - LGM

**Feeding Berry Crops in the Fall**

Ideally berry growers would be looking at the results of their foliar tests, right next to a recent (2-3 years at the most) soil test and formulating a fall and spring fertility program specifically for the demands of your plant. If you are considering establishing a new planting, now is a great time to collect a soil sample and have it analyzed. You will still have enough time to add the recommended soil amendments before the ground freezes, and this will allow you to plant next spring in ground that is perfectly prepared for berries. Keep in mind that the soil test results are only as good as the sample, so be sure to sample properly.

Please visit the Agro-One website for more information on proper soil testing procedure and how to submit samples. http://www.dairyone.com/AgroOne/default.htm

If you are not settling down with your soil and foliar analysis results, you can prioritize testing for next year and consider these rules of thumb:

**June Bearing Strawberries:** Apply 30#N/acre in early September (that window is closing, so move quickly) in the form of calcium nitrate, ammonium nitrate or urea. If you wait to add the nitrogen until October, it will cause too much growth and prevent winter hardiness. The sooner you can get N on the better. This is for newly established plants and older plantings. Plants that had fruit this spring should have received 70#N/A at renovation.

**Day-Neutral strawberries:** Continue fertigation into the middle of October. You should be applying 60-150# of N during the production cycle and foliar analysis and yield records will help you determine the best end of that recommendation for you to be. These plants are very heavy feeders, so starting at the mid-point and working up might be the best bet.

No nitrogen should be added to any other berry crops at this time unless specifically noted in your foliar test results. If you have not done a foliar analysis, but do have a recent soil test, go back and look at the soil levels for Boron and Magnesium. Those 2 elements are frequently deficient in NYS soils. Magnesium is especially important in blueberry plantings, so if you have a deficient situation, the typical amount to apply is 50-200lb/acre of magnesium sulfate (20% Mg). If you are doing this without foliar sample results, err on the conservative side and add just 50lb/acre.

If your soil sample shows low Boron, and you haven’t added any for the year, you can add this at a rate not to exceed more than 2 lbs of actual boron in any one year. This will mean no more than 10 lb/acre of Solubor this year. Solubor and Magnesium should be applied ASAP. - LGM
Lessons from Brussels sprouts variety trial

I’ve always found Brussels sprouts to be a mysterious crop. Some years they do great; some years the bottom buds flower and the top are the size of peas. I’ve accepted this as “how it is,” but on Monday, at a variety trial meeting at Paul and Sandy Arnold’s farm, Jan van der Heide of Bejo Seeds educated me and the crowd of growers about how to better control the maturity and quality of this finicky crop.

Step One: Control the fertility. Ideally, you want to provide the crop with ample nutrition until the sprouts have reached about 2/3 of their total height, building a vigorous and healthy plant. At this point cut the fertility and the plant will begin taking nutrients, especially nitrogen, from the bottom of the plant to the top. As this happens the bottom leaves will naturally fall off, making harvesting much easier.

Step Two: Top varieties that aren’t self-topping. When the lowest sprouts are the size of the tip of your pinky, remove the tip of the plant (see bottom picture, right). Removing the tip of the plant sends a hormonal cue to the buds to start increasing in size. Sprouts should be more evenly sized up the stem if you do this, or if you use self-topping varieties (Look in catalog description for this information)

Choose varieties that deliver when you need them to. If you need sprouts for a month worth of markets, choose multiple varieties that mature at slightly different times. Try out a few new varieties each year and then use what works best in your soils and with your systems. –CLS

Sweet Corn Trap Counts: Week of September 19

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Weekly and Seasonal Weather Information

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