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Cooperative Extension Service The University of Georgia College of Agricultural and Environmental Sciences

## HARVESTING AND CURING OF VIDALIA ONIONS

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The level of maturity at which onions are harvested, influences the sugar, pungency and disease growth on or in the onions, all of which influence cure time and shelf life.

Onions should be harvested at optimum maturity. Maturity is best determined by pinching the neck of the growing onion. Necks of immature onions are stiff. Necks of optimally mature onions are soft and limber. When the necks are so weak that they cannot support the tops the onions are over mature. Simply observing the percentage of tops having fallen over is not a true indication of maturity, since the tops can be knocked over by strong winds, rain or become limp from lack of moisture.

Onions should be undercut without damaging their base. Undercutting should sever the roots without displacing the onions which could expose them to sun-scald. A rotating bar can break the roots yet leave the onions in place.

When clipping roots and tops leave at least 1 in. of roots and 1.5 - 2 in. of neck attached to the onion bulb. Remaining roots will most likely shrivel during curing and be knocked off. Necks should dry during curing and fold over when handled. Extra short necks increase the likelihood of disease infestation.

During clipping, care should be taken to prevent injury to the bulbs with the shears and dropping them on to hard surfaces such as the bottom of a buckets and other onions. Onions should be held below the level of the rim of the bucket while clipping.

Onions may be cured in the field only when weather permits, but there should be sufficient capacity to artificially cure onions. Inclement weather encourages disease growth on or in the onions.

Onions should always be carefully handled to avoid external and internal damage, especially when loading onto the hard surface of truck bodies. Walking and standing on bags of onions should be avoided.

Artificial curing should be with air up to 100 °F at the intake with a flow just sufficient to feel when placing a hand above the onions. Too much heated air will desiccate onions especially near the base of the bin.

Curing time should be sufficient for the drying front to entirely move through the onions. An example of the time required is 96 h+ for immature onions, 48 h+ for mature onions and 24 h+ for over mature onions, but this will vary with each harvest and other factors.

Curing dries several layers of scales, giving both protection and an attractive appearance to the bulb; assists in healing wounds, seals severed roots from the intrusion of disease, dries the neck making it less likely for disease to enter through the neck; and encourages certain disease growth on the surface of the onion bulb, making diseased onions more easily identified during sorting and grading.

Onions should be sorted and inspected immediately following curing then again before any shipping or storage is begun if the onions are left unattended for more than one week, since diseased onions are likely to infect other onions during shipping or storage.

Onions going onto the market as fresh produce should be in the hands of the consumer within four weeks of harvest.

Onions going into cold or CA storage should be sampled and the samples analyzed for disease before the onions go into storage in order to determine the suitability for those onions to be stored. There is no point in storing onions which are already infected.

Choose a storage method suitable for the market window being targeted i.e. fresh blown air, air conditioned, cold or CA. The medium of storage influences the rate of decay, but does not stop it.

Onions going onto the market following the fresh market window may be kept in cold storage but should be placed into cold storage within one week of being undercut. Any delay encourages disease growth.

Onions going onto the market following the cold storage market window should go into CA with the room sealed within one week of the onions being undercut. Any delay encourages disease growth.

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