



GUIDELINES FOR SWEETPOTATO SEED STOCK AND TRANSPLANT PRODUCTION

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Sweetpotato production should be planned as a part of your total annual farm management scheme. Sweetpotatoes should not be grown just “once in a while” or just in those years you think you’ll be able to “get rich quick.” Commitment to an ongoing production program is required in order for you to be a successful grower.

Having your own good seed program indicates that you are committed to sweetpotato production and gives you confidence in the quality of the transplants you use for your crop. It gives you control over transplant production by providing you with the freshness and quantity you need when you want it.

CERTIFIED SEED

The North Carolina Crop Improvement Association has been certifying sweetpotatoes for more than 50 years. The North Carolina Certified Sweetpotato Seed Growers Association works closely with them to supply the sweetpotato industry with quality seed. Field and storage inspections assure that your seed stock will have:

1. Varietal purity
2. A minimum of mutations
3. Little or no serious disease problems

In most years, it is not possible to buy sufficient certified seed stock to grow your

entire sweetpotato crop. Therefore, you need to develop and maintain your own seed program and integrate this into your commercial production program.

1. Always use N.C. certified seed stock.
2. Fill one-tenth of your total annual commercial seed stock needs with certified seed stock.
3. Increase this certified seed stock for the following year’s commercial crop.
4. Keep your seed operations separate from your commercial operations.

PRECAUTIONS AND RECOMMENDATIONS

1. Handle seed stock (for production of next year’s crop) separately from seed stock for the commercial crop.
2. Presprout seed stock. Raise the temperature in the storage house where seed sweetpotatoes are to 75 to 85°F with 90 to 95% relative humidity for about 3 to 4 weeks. Provide some ventilation. Presprouting results in earlier plant production and 2 to 3 times more transplants.
3. Bed site selection.
 - (a) Locate on well-drained soil.
 - (b) Rotate plant beds so that sweetpotatoes are not bedded on the same site for at least 3 years.

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- (c) Locate near an adequate source of water for timely irrigations.
 - (d) Fertilize plant beds with a complete fertilizer.
4. Bedding.
- (a) Soil temperature at 4 inches should be 65°F for several consecutive days prior to bedding.
 - (b) Handle seed stock carefully to minimize skinning and bruising.
 - (c) Before covering with soil, remove any mutations as well as off-colored or diseased roots.
 - (d) Treat with Botran and Mertect according to label instructions.
 - (e) Cover with loose soil to a uniform depth of about 2 inches. Bedding too deeply can result in rotting due to suffocation, reduced transplant production and later transplant production.
 - (f) Treat beds with an approved herbicide to control weeds and grasses.
 - (g) Cover beds with clear or black plastic mulch immediately after bedding to warm the soil and speed plant emergence. Punch a few holes in the plastic for ventilation.
5. Cut transplants from the beds.
- (a) By cutting plants rather than pulling, the spread of diseases from the plant bed to the field is reduced.
 - (b) Always cut upward, and never let the knife touch the soil.
 - (c) Sterilize the knife frequently by dipping in a 1:1 solution of chlorine bleach and water.
 - (d) Use only new or fungicide-treated boxes for transplants.
6. Destroy bedded seed stock when you've finished harvesting transplants, by herbicide application, disking, etc.
- (a) Occasionally, "mother" roots may look good enough to market.
 - (b) Don't be tempted to sell "used seed stock" on the fresh market or for processing.
 - (c) Bedded seed stock may have been exposed to materials and conditions that render it unsuitable, even dangerous, for human consumption.
7. Planting.
- (a) Select fields with well-drained soils and build highridges as further insurance against flooding damage.
 - (b) Wash all soil from transplanters and other equipment between use in commercial fields and the seed production fields to minimize possible contamination.
 - (c) Use vine cuttings from certified seed to increase seed stock for next year.
8. Harvesting sweetpotatoes.
- (a) Harvest early to minimize the risk of losses due to cold and wet conditions later in the season.
 - (b) Wash all soil from harvesters and other equipment between use in commercial fields and the seed fields.
 - (c) Use only new or fungicide-treated boxes for seed.
9. Cure Seed Sweetpotatoes at 85°F and 90 to 95% relative humidity for 4 to 7 days to help minimize potential losses in storage. Curing should begin as soon after harvest as possible.
10. Storage.
- (a) After cutting store seed stock at 55°F and 85% relative humidity. Separate from commercial sweetpotatoes, in another building, if possible, to avoid contamination.
 - (b) Sanitation! Clean up (remove all sweetpotatoes), and fumigate seed storage areas during hot summer weather before harvesting begins.

For more information, please refer to *Growing and Marketing Quality Sweetpotatoes*, North Carolina Agricultural Extension Service Bulletin No. AG-09, 1989, by L. George Wilson and Charles W. Averre. This publication can be purchased for \$2.00 from: Department of Agricultural Communications, North Carolina State University, P.O. Box 7603, Raleigh, N.C. 27695-7609.

Always use pesticides according to label directions. The use of trade names does not imply endorsement of the product named nor criticism of similar ones not mentioned.