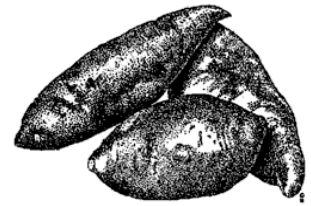




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SWEETPOTATO TIPS

April 2004

PLANT BED CONDITIONS

The best temperature for sprout growth is 70° F to 85° F. Temps above 90° for extended periods can cause the seed to rot. Keep an eye on the temperature under the plastic and ventilate as necessary.



Excess moisture can cause anaerobic conditions to develop in the beds, which in turn leads to rotting. Water only enough to reach the bottom of the seed roots. Water early in the day so the plants will be dry by evening. Excess water can cause Scurf to flare in the beds, which can then be carried out to the fields.

There are no registered fungicides to control plant bed diseases after the roots have been bedded. Your control methods are to keep the foliage dry with airflow, sunshine, and proper irrigation.

USE OF STEM CUTTINGS

One of the best ways to prevent the spread of disease and nematodes from the beds to the field is to plant cuttings. Many potatoes that are used for seed can be infected with diseases and nematodes and not show obvious symptoms. If these plants are pulled, rather than cut, the

problems are taken back out into the fields. This is how these problems perpetuate, even when fields and hot-beds are fumigated.

To avoid this, cut off the plants in the bed just above ground level. Pox, Scurf, Black Rot, and root knot nematodes will practically be eliminated. Stem Rot (*Fusarium wilt*) will be reduced (there is no effect on virus diseases like russet crack).

Stem cuttings need to be a couple of inches taller than normal. Keep this in mind when you are trimming those plants that were bedded in early February. Also remember that your slips will do better if they have a few leaves on them when they are transplanted.

FUNGICIDE DIPS

For increased disease control, cuttings can be dipped in fungicides immediately before planting. Benolate (benomyl) is a good stem rot control material. Use at the rate of 16 oz per 50 gallons, and dip the cuttings for 15 minutes. Unfortunately, Benolate is no longer labeled for sale (label is valid for existing supplies). Topsin (thiophanate-methyl) is a good potential replacement, but it is not registered on sweetpotatoes. Mertect (thiabendazole) at 8 fl oz per 7.5 gallons dipped for 2 – 3 minutes will help control Scurf, black rot, and stem rot. Botran (DCNA) is labeled as a seed dip or bed spray at 1 lb per 7.5 gallons. It will help control Scurf.

VARIETY INFORMATION

- ✓ Beauregard has no nematode resistance.
- ✓ Beauregard is Pox resistant.
- ✓ Jewel has no Pox resistance, but does have nematode resistance.
- ✓ Garnet has some nematode resistance.
- ✓ Hanna and Golden Sweet are not nematode resistant and are not stem rot (Fusarium wilt) resistant.
- ✓ Bienville is both Pox and nematode resistant, but suffers from splitting at harvest.
- ✓ Diane is susceptible to both Pox and nematodes, but resistant to Stem rot.
- ✓ Japanese are susceptible to Pox and nematodes.
- ✓ No variety has resistance to Scurf.

What's going on with the new Beauregard from the Sweetpotato Council? You may have heard about problems with "twining", where the plants tend to grow up and wrap around each other like a bean or pea plant. This trait was inadvertently selected with the new seed selection from a couple of years ago. Previous experience with this in Louisiana and North Carolina shows that it does not affect production, and may in fact go away on its own after a couple of seasons in the field. Nonetheless, the Council has decided to make another selection this year and start the virus indexing process over again.

VIRUS TESTED SEED: HOW OFTEN?



Research has shown that with Beauregard, yield and quality decline significantly after three (3) years with the same seed. There may be more tolerance in the other varieties, particularly Diane, so they may not need to be replaced as often for maximum productivity.

NEW REGISTERED PESTICIDES

Insecticides:

Actara (thiamethoxam). Syngenta. CAUTION material. For control of sucking/chewing insects. Foliar applications when pest present.

Platinum (thiamethoxam). Same chemical as Actara, but for soil incorporation at transplanting. Would have efficacy on grubs.

Provado (imidacloprid). Bayer Crop Science. CAUTION material. Same chemical as Admire, but for foliar applications. For control of aphid and whitefly.

Fulfill (pymetrozine). Syngenta. CAUTION material. For control of aphids. Foliar applications when pest present.

Gemstar LC (polyhedrosis virus from corn earworm). Certis. CAUTION material. Biological control material for control of corn earworm larvae.

Entrust (spinosad). Dow AgroScience. CAUTION material. Organically approved formulation of Success. For control of armyworms (note: weak on western yellowstripe armyworm).

Sulfur. Various manufactures. CAUTION material. Foliar applications for control of mites, mildews.

Herbicides:

Prism (clethodim). Valent. CAUTION material. Post emergence grass herbicide.

Scythe (pelagonic acid). Mycogen. WARNING material. Broad spectrum burn-down herbicide. Can be used in season with hooded sprayers.

Touchdown (glyphosate). Syngenta. CAUTION material. Broad spectrum, pre-plant burn down herbicide.

Fungicides:

Apron (mefenoxam). Syngenta, Wilbur Ellis. WARNING material. Seed treatment for the control of pythium.

Headline (pyraclostrobin). BASF. WARNING material. Downey mildew, rust, powdery mildew, and leaf spot control.

Maxim (fludioxonil). Syngenta. CAUTION material. Seed treatment for the control of damping off and seedling blight.

Quadris (azoxystrobin). Syngenta. CAUTION material. For control of both foliar and soilborne (pythium, rhizoctonia) diseases.

Surround (Kaolin). Engelhard Corp. CAUTION material. General crop protectant.

Sulfur. Various manufactures. Sulfur provides control of powdery mildew.

Telone (1,3-D) is weak on controlling weeds, though it does offer some suppression. Devrinol (napropamide) or Dacthal (DCPA) are inexpensive herbicides that will help suppress pigweed, lambsquarters, cheeseweed, purslane, and many grasses. They need to be pre-plant incorporated (light tillage or water incorporated) for best control. Based on my research, I recommend the high rate of Devrinol (4 lbs/A) or the low rate (6 lbs/A) of Dacthal. Expect no better than 75% control.

THE WHOLE KIT & KOOBOODLE

Insecticides	Herbicides	Fungicides
Temik (aldicarb)	Dacthal	Benlate*
Azadractin	Devrinol	Bleach
Dipel (Bt's)	Poast	Botran
Botaniguard	Fusilade	Ridomil
Sevin (Carbaryl)	Roundup	Mertect
Lorsban	Vapam	Apron
Cinnacure	Prism	Headline
Diazinon	Scythe	Maxim
Thiodan (endosulfan)	Touchdown	Quadris
Mocap		Surround
Enviropel (garlic)		Sulfur
Safer Soap		
Malathion		
Metaldehyde		
Lannate		
Trilogy (oils)		
pyrethrins		
Actara		
Platinum		
Provado		
Fulfill		Telone
Gemstar		Pic
Entrust/Success		Vapam
Sulfur		Methyl Bromide

Speaking of Telone, you may be wondering about the current cap situation, your certificates, etc. The cap is the same as last year (an expanded amount in T7 R11 and R12). Certificates are similar as last year, with some small modifications. Contact your PCA or Deb Shatley with Dow AgroScience (916-434-2266) for all the details.



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FIELD THOUGHTS

Pox likes hot, dry conditions, so late planted fields will be more susceptible to this disease. Pre-irrigate late fields as a management practice, even if they are fumigated. Also, check your field pH. A typical soil test will recommend raising the pH if it is between 5 and 6. But this pH will help keep Pox in check.

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