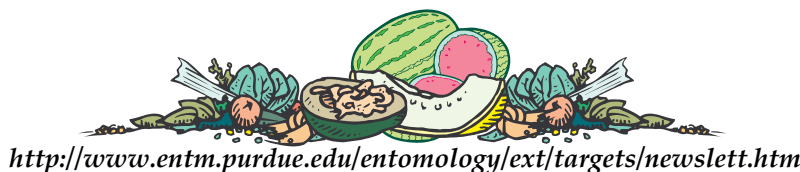


VEGETABLE CROPS HOTLINE

A newsletter for commercial vegetable growers prepared by the
Purdue University Cooperative Extension Service

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NORTHERN INDIANA VARIETY TRIAL RESULTS - (Liz Maynard) - Variety trials conducted at the Pinney-Purdue Ag Center in Wanatah compared new and old cultivars of se sweet corn, sh2 sweet corn, fresh market tomatoes, and ornamental corn. Full reports of the trials will be published in the Midwest Vegetable Variety Trial Report, available early next year. This article presents the highlights of trials.

Sweet Corn, se bicolor: Temptation continues to stand out among the early varieties. Wizard, 5 to 6 days later than Temptation, was among the best of the main season varieties. Other promising varieties included Trinity, Jester II, EX 8414837, Lancelot and Precious Gem.

Sweet Corn, se yellow: HMX 5346 was a good early variety, harvested after 69 days. July Gold, harvested 5 days later, produced wide blunt ears and generally performed well except that kernels did not routinely fill to the tip of the cob. Kandy Plus, harvested at 81 days, performed well compared to other full season cultivars.

Sweet Corn, se white: Sweet Ice, Silver Princess, and Silver King were the top performers out of 9 white cultivars.


Sweet Corn, sh2 bicolor: Fresh Start was the best of the two 70-day varieties. BSS 6284, Candy Corner, and Fortune bicolor, harvested within a week after Fresh Start, also performed well.

Sweet Corn, sh2 yellow: GSS 3587 was the earliest in the trial at 75 days and looked good this first year in these trials. Varieties which have performed well previously and looked good again this year included Saturn, Attribute, Punchline, HMX 3360s, and Morning Star.


Sweet Corn, sh2 white: Ice Queen, Boreal VP, Summersweet 781 Ultra, and Vail were the most promising of the 9 white cultivars.

Fresh Market Tomatoes: Among the fourteen cultivars trialed, the following performed the best: Sunshine (for very early yield), Floralina (high yield, good quality, main season), Florida 47 (high yield, good quality, late main season), Florida 91 (large fruit, good quality, late main season), Mt. Fresh (good

quality, main season), Sunleaper (good yield, smaller fruit, good quality, early main season, heat-tolerant). Carolina Gold is of interest because of its golden yellow color and large fruit. **Ornamental Corn:** Seventeen cultivars were evaluated: 6 full-sized ears, 3 large popcorn types, and 8 miniature types. Among the large-eared varieties, Indian Art 104 and Indian Art 185 were the most promising. Two popcorn types, Shaman's Blue and Ruby Red, produced nice-looking ears of solid violet-blue or burgundy-red kernels, respectively. Of the miniature types, Carousel, Trinkets, and Little Indian were the most promising overall. The other miniatures included: Pretty Pops Laser, noteworthy for golden brown colors; Indian Fingers, with a nice range of darker kernel colors; Strawberry, with short wide ears of solid red popcorn kernels; and Little Bow Peep and Little Boy Blue, super miniature ears 3 - 3.5 inches long with solid purplish-pink or smoky blue kernels.



TOMATO PRUNING - (Liz Maynard) - An article in the Sept. 2 Hotline issue presented preliminary results from the pruning treatments included in the above variety trial. The final results were similar to those already reported: a one-time removal of branches more than 3 nodes below the first main stem cluster led to: 1) increase in fruit size of 19%, 2) decrease in yield of No. 1 fruit of 41%, and 3) increase in percentage of culls of about 1/3. The effect of pruning on early yield depended on variety.



WHO WILL TAKE MY OLD PESTICIDES? - (Fred Whitford) - It's an often asked question. But before answering, it's important to mention what *not* to do.

The "old stuff" should never be buried on your property. I can guarantee that you will be required to answer questions about your chemical disposal methods whenever you use the property as loan collateral or sell it.

Burying pesticides is a no-win situation. If you bury them and claim on a financial instrument that you didn't, you might face federal charges. Answering truthfully will undoubtedly require that you pay for and pass an environmental audit before borrowing money against, obtaining insurance on, or selling the property. With so much at stake, don't make products disappear by burial.

Is It a Registered Product? The easiest way to determine whether pesticides are still registered is to get the EPA registration numbers from the product labels and call your county extension educator or the Office of the Indiana State Chemist (OISC). If your products are still registered with OISC, then it's your lucky day. The best option is to ask the chemical dealer from which you originally purchased the product to take back unopened products. If you're on a roll, you might even get a refund or a credit on next year's pesticide bill. But the likelihood that the dealer will take back the product is slim to none if the pesticide is more than two years old or if the seal on the container is broken.

Older registered pesticides that the dealer will not accept should be mixed and applied according to the label. Some products may no longer be effective, but it is still legal to apply them to a labeled site, following label instructions. The least favorable option is to give them to others who have use for them. If the product is restricted, make sure that the recipient is certified to use it. Get a written release stating that you are not guaranteeing the product's effectiveness.

It's No Longer a Registered Product. Disposing of *unregistered* pesticides is more complicated and expensive because application is no longer an option. Contact your local solid waste district or hazardous waste hauler and ask what they will charge to dispose of the chemicals. Although some cities have tox-away days, generally they accept homeowner wastes, only.

Do the Minimum While You Contemplate Your Options. Many of the older products left in long-term storage date back nearly a quarter of a century, and sometimes old cans leak. If that is your situation, it is important to transfer all liquid chemicals from leaking containers into containers that will hold the entire volume. Pickle buckets from fast food restaurants are good to use, and they can be obtained at no cost. Wrap old bags containing pesticides in heavy duty plastic bags to ensure containment.



Think Smart About What You Purchase. Order what you anticipate needing for a single season, and make arrangements with the dealer to sell back to him any unopened containers at the end of the spray season. Shop around, because some pesticide dealers offer to deliver products, as needed, to avoid the need for sell-back. Use returnable minibulks, whenever possible, because you will be credited instantly for any product left in the tank. A less desirable option is to use leftover products the following year, while they are still registered and effective.



NEW FUNGICIDE LABELED - (*Dan Egel*) - Flint is a new fungicide labeled for powdery and downy mildew of cucumber, muskmelon, watermelon, pumpkin, gourds, summer squash, winter squash as well as other cucurbit vegetables. This product will be available for use in the 2000-growing season. Flint, known as trifloxystrobin, is a strobilurin fungicide which puts it in the same chemical class as Quadris.

Both Flint and Quadris are protective fungicides. That means that these fungicides will work best when applied **before** disease is observed. However, these fungicides have systemic properties. The active ingredient to these fungicides will re-locate to a limited extent within the leaf. Neither chemical will go from one leaf to another, but will move from one side of a leaf to another.

There is a possibility, with both fungicides, of the fungus becoming resistant to the chemical, much as bacteria that attack our bodies may become resistant to an antibiotic. If fungi become resistant to a fungicide, the fungicide will become less effective in controlling disease.

To avoid the possibility of fungi developing resistance to Flint, growers need to carefully follow some simple guidelines:

1. Growers may apply one or two Flint treatments, but then have to apply another EPA registered fungicide of a different mode of action. Do not alternate Quadris with Flint treatments since the fungicides have the same mode of action.
2. Do not apply more than 4 total applications of Flint in one season. Do not apply more than 16 oz. of Flint per acre per season.
3. Always apply the labeled rate of Flint (as well as other fungicides). The use of less than labeled rates may result in poor control and the build-up of fungi resistant to the fungicide. The use of too much fungicide is a waste of money and chemical.

Remember that Flint is labeled only for powdery and downy mildew. Flint may be applied up to the day of harvest (0 PHI) and has a 12-hour re-entry period (REI).



SLUG CONTROL - (*Jerry Brust*) - Slugs and snails are not insects, but can cause damage to foliage and fruit that looks like insect damage. They seldom cause any extensive damage in commercial plantings, but cause the most serious damage to seedlings, tender low growing leafy vegetables, or ripening fruit that are on the ground. Slugs and snails are molluscs and look similar in their early stages, but slugs do not form a shell as they age. It takes 3-7 months for immatures to obtain adulthood. They are 1/4 to 6 inches long depending on species. Slugs and snails are active at night or cloudy days. Feeding damage, hollowed-out areas, can be found anywhere on fruit, but is usually concentrated near the stem. Slugs leave their telltale slime trail (silvery trail) behind on the surface of fruit or leaves.

Slugs and snails favor continuously moist soil and organic mulch. Their eggs are laid in groups in moist soil and they use the organic mulch to overwinter. Therefore, slugs can go through their entire life cycle in a field.

If slugs are a problem their hiding places, i.e., boards, stones, weedy areas, need to be eliminated. Heavy mulching will also create a favorable habitat for slugs and needs to be thinned - so soil can warm and dry - which will reduce the number of slugs. Raised beds that can dry out more readily than flat beds are beneficial not only for slug control but also for horticultural reasons. Use of black plastic will discourage slug build-up because it causes the soil to heat up and dry out. As a last resort, metaldehyde bait (Clean Crop, 3.5G 30-40 lbs/A or 7.5 G 15-20 lbs/A) could be used and is usually very effective. Follow label instructions carefully for application methods for each particular vegetable or fruit crop. Apply bait in evening after a rain or irrigation. For an organic alternative, Diatomaceous earth can be used around plants (a 1 inch high x 3 inch wide band). It has had moderate to poor success in controlling slugs.



UPCOMING MEETINGS:

December 6-7-Adding Value Through Environmental Marketing: Opportunities for Food Producers, Processors and Retailers, USDA, Madison, WI (202) 720-3605

January 3-4-Kentucky Vegetable Growers Association annual meeting & trade show, Lexington, KY. John Strang (606) 257-5685.

January 6-Illiana Vegetable Growers School, Teibel's Restaurant, Schererville, IN. Liz Maynard (219) 785-5673.

January 18-20-Great Lakes Vegetable Growers Convention and Farm Market Show, Grand Rapids, MI. Dave Smith (734) 848-8899

January 24-26-Horticulture Congress, Adam Mark Hotel, Indianapolis. Jim Simon (745) 494-1328

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