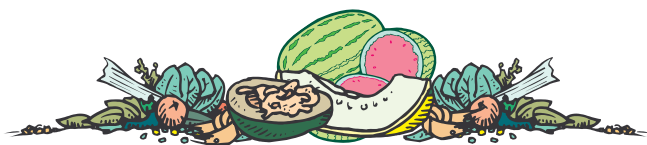


# VEGETABLE CROPS HOTLINE

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

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No. 357  
April 1, 1999



<http://www.entm.purdue.edu/entomology/ext/targets/newslett.htm>

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**WEB ADDRESS - (Editor)** - The *Vegetable Crops Hotline* is offered in a paper version or readers may access us on the web. Starting with this issue, the URL (web address) will be included in the heading (see above). We encourage interested readers to check out the *Vegetable Crops Hotline* on the web. As always, let us know what you think.



**CORRECTION - (Dan Egel)** - In the January 28 issue of the *Vegetable Crops Hotline*, it was reported that Subdue 2E is no longer labeled for use on greenhouse vegetable crops. However, Subdue 2E was never labeled for vegetable crops. It should have been reported that Ridomil 2E is no longer labeled for vegetable use in the greenhouse. (Several formulations of Ridomil are labeled for field use on vegetables.) I am sorry for any inconvenience this may have caused.



**SCYTHE® HERBICIDE - (Liz Maynard)** - Scythe® herbicide from Mycogen is labeled for use on vegetable crops. It is a non-selective, contact herbicide, best absorbed through tender, green tissue.

"Non-selective" means that it can affect all kinds of plants: no crop or weed with green leaves is immune. If the herbicide contacts vegetable crops, they will be burned. For this reason it is labeled for use as 1) a burndown before planting a crop, 2) as a directed or shielded spray after the crop has emerged,

and 3) (on all but leafy green crops) as a spray before crop has emerged from the ground. In herbs and asparagus it can also be applied when plants are dormant.

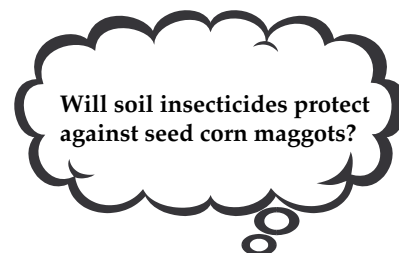
"Contact" means the herbicide burns any green plant tissue it contacts, but does not move inside the plant from one leaf to another, or from leaves down to the roots. Only the plant part contacted by the herbicide will be killed. Weeds that emerge after treatment, or regrowth from a treated plant will not be controlled. As with any contact herbicide, this means that good coverage is necessary for good control. Read label for recommendations on spray volume and nozzle choice. Perennial weed top growth may be burnt back, but underground portions will not be killed and regrowth is likely.

The active ingredient in Scythe® is pelargonic acid, a natural fatty acid. This same material in a different formulation was the active ingredient in Sharpshooter® herbicide. Pelargonic acid kills plant cells quickly by causing disruption of the cell membrane. Petroleum distillates are among the inert ingredients in Scythe®, making the product unsuitable for use under many certified organic regulations. The herbicide is an eye and skin irritant, bearing the signal word "WARNING" on the product label.

**Some potential uses in Indiana vegetable fields include burndown of annual weeds in stale seedbeds; burndown in reduced tillage situations; and post-emergence control of weeds between rows or on edges of plastic, using a shielded sprayer or careful spot-spraying.** For some of these uses other materials such as Roundup® (glyphosate) or Gramoxone® (paraquat) are already labeled. Advantages of Scythe® include wider crop registration, and, compared to Gramoxone®, much lower acute toxicity to humans. Disadvantages of Scythe® compared to Roundup® include no systemic activity, meaning poorer long-term control of perennials and lack of control if weed is not well-covered

with herbicide. (In some burndown and stale seedbed applications, Scythe® can be mixed with Roundup®, for improved weed control. See product labels for details.) Another, hopefully temporary, disadvantage of Scythe® is that it is untested – we do not have the experience with it to know how best to use it, and how effective it will be in our field situations.

**If you choose to try this product, I recommend that you test it in a part of your field side by side with your current practices.** Keep in mind that to be killed, weeds must be thoroughly covered with, and must absorb the herbicide. Always read and follow all label instructions.



**GROWER QUESTION - (Jerry Brust and Dan Egel)** - Seed corn maggots are the larvae of small flies which may lay their eggs near vegetable transplants. Organic matter such as soil mixes used with transplants or other rotting vegetable matter attracts the flies. The larvae (maggots) may burrow into seeds or stems of transplants reducing germination or killing seedlings. Below, the use of soil insecticides is discussed along with other preventative measures.

- **Soil insecticides:** Carbofuran (Furadan 4F) is sometimes applied as a preventative treatment against seed corn maggots as well as other pests. Furadan 4F is a restricted use insecticide. Growers should read the label carefully to determine if Furadan 4F is labeled for their crop and for safe/ effective application methods. Furadan 4F should be worked into the first 3 to 4 inches of the soil so it will come into contact with the roots. **Although Furadan 4F may reduce the amount of seed corn**



**maggot damage, it is not a cure for seed corn maggots.** Methyl bromide and other soil fumigants will have little if any effect on seed corn maggots.

- **Disc/plow cover crops:** Since rotting cover crops can attract seed corn maggot flies, disc under any cover crop 3 to 4 weeks before you plan to seed or transplant. By this time, the cover crop should have decayed enough so as not to attract any of the flies.
- **Temperature:** Warm soil temperatures discourage the seed corn maggot flies from laying eggs. Clear plastic mulches increase soil temperatures above that of black plastic mulches which in turn increase soil temperatures above bare soil.

How warm does it have to be to discourage seed corn maggot flies? The daily soil temperature of the bare ground at 4 inches has to have a high of 72 F or higher for 5 days *after planting* to reduce the damage caused by the flies to 3% of seedlings planted. If soil temperatures are at or above 72 F before planting and it turns cold, seed corn maggots may attack again. After 5 days of consecutive 72 F soil temperatures or above, temperatures have to turn cold for 5 consecutive days for seed corn maggots to attack again.

Use the above measures to combat the seed corn maggot. And remember, soil insecticides may reduce seed corn maggot damage, but are not a cure.



**MELCAST-** (*Dan Egel*) - Have you heard about MELCAST? What is it?

MELCAST is a disease-forecasting program for muskmelon and watermelon growers in Sullivan, Knox, Daviess, Gibson and Jackson counties. At this time, growers outside of these areas and with crops other than muskmelon and watermelon can not participate in MELCAST.

For eligible growers, MELCAST offers a way to spray fungicides when they are most needed. The severity of plant diseases is highly dependent on the weather. MELCAST keeps tabs on the weather using satellites. Interested in saving money? MELCAST usually saves 2 to 3 fungicide sprays a year.

What diseases can MELCAST help with? Watermelon diseases include anthracnose and gummy stem blight. Muskmelon diseases include alternaria leaf blight.

How to use MELCAST? **If you have ever changed the oil in your car by keeping track of mileage, you already know how to use MELCAST.**

- **Spray your protectant fungicide at vine touch as usual** (protectant fungicides include Bravo, Echo, Terranil, Dithane, Manzate 200, Penncozeb, etc.).
- **Call (800) 939-1604 toll free** (Monday through Friday) to get the EFI (Environmental Favorability Index) value for the day you first sprayed. Write the EFI value down in the book provided just like you would write down the mileage when you change your oil. (If you don't already have a book, call Dan Egel or Rick Latin).
- **Spray fungicides again when the EFI values have increased by 20 for muskmelon or 35 for watermelon** just as you would change your oil when the mileage has increased 4,000 miles. Write down the new EFI value when you have sprayed again.
- For example: You have just sprayed fungicide on your watermelon at vine touch. You call (800) 939-1604. The EFI value for the station nearest you is 14. You write down 14 in your MELCAST book under today's date. Every few days you call again. When the EFI value gets to 49 (14+35=49) you spray again. Write down the EFI value in your book when you spray again.
- What if it has been 2 weeks and your EFI values still have not reached 20 (muskmelon) or 35 (watermelon)? Go ahead and spray. Growers using MELCAST will spray fungicides every two weeks all season long unless MELCAST "says" to spray sooner.
- It isn't necessary to call everyday. Call more often if it has been wet. EFI values accumulate faster in wet weather.
- Powdery mildew is a disease that is better controlled with systemic fungicides. Therefore, MELCAST can not be used for powdery mildew control.
- **Use MELCAST to help you decide when to spray.** But use common sense. If it is Friday and your EFI values have almost reached your "spray value" go ahead and spray-especially if it looks like rain. Or if you have a severe disease problem, go back to spraying every 7 days.

That's about it. Be sure to read pesticide labels carefully. If you have any more questions, contact Dan Egel (812) 886-0198 or Rick Latin (765) 494-4639.



Disclaimer

Reference to products in this publication is not intended to be an endorsement to the exclusion of others which may have similar uses. Any person using products listed in this publication assumes full responsibility for their use in accordance with current directions of the manufacturer.



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