General: Zeneca Ag Products has received a label for the use of Warrior for Brussels sprouts, cauliflower, Chinese broccoli (gai lon), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), kohlrabi, and leaf lettuces. Apply from 1.92-3.84 fl oz per acre, depending on pest. Do not apply within 1 day of harvest, and do not apply more than a total of 1.92 pt per acre per season. Consult label for all other additional information.

Cabbage: The common white butterflies flying around cabbage fields are adults of the imported cabbageworm. Oviposition has already started, and treatments are justified when 20% or more of the plants are infested before heading. All of the labeled insecticides are effective, including the Bt's (Dipel, Agree, Crymax, Javelin, Lepinox, Maatch, XenTari, etc.).

More importantly, closely monitor fields for flea beetle damage. The relatively easy winter will likely result in heavy flea beetle populations, which should appear earlier than normal. Damage can be heavy when the flea beetle population is high. Ammo, Asana, DiSyston, Karate, Sevin, Thiodan and Warrior are all labeled and effective for flea beetle control. Consult label for all rates and restrictions.

Carrot: Carrot weevil activity should have started already. If you have traps in the field, check them frequently for adult activity. Asana XL and Baythroid 2EC are labeled for carrot weevil control.

Onion: Based on the maggott fly traps operated by Wes Kline and Dave Bachinski, maggots are being actively trapped in the fields (it is likely that most of these are seedcorn maggott flies and some are onion maggott flies, although this has not been confirmed as yet). The Degree Days have passed the point where flies emerged in 1997! Recent research trials at Rutgers Agricultural Research & Extension Center have shown that diazinon was relatively ineffective against onion maggott, Lorsban was effective (labeled only for dry bulb onions), and Trigard ST seed treatment was highly effective. New Jersey has a Section 18 Emergency Use Label for the use of Trigard as a seed treatment, effective now until the end of May, 1998. Note that the Trigard ST is a special formulation for seed treatment. Trigard 75 WP is not labeled for seed treatment and is not effective as a seed treatment. The label for the Trigard ST is for a rate of 6 lb of Trigard ST per 100 lb of seed for green onions (scallions).

Parsley: Carrot weevil activity should have started already. If you
Weed Control in Vegetables
Bradley A. Majek, Ph.D., Weed Science

✔ Corn (Sweet): Use Partner, Microtech, or Dual II applied preplant incorporated or preemergence to control grasses. Add Atrazine and/or Bladex for broadleaf weed control. Use reduced rates of atrazine, 0.66 to 0.75 lb ai/a to reduce the risk of carryover. The total triazine (Bladex and atrazine) active ingredient used should not exceed 0.75 to 1.0 lb ai/a.

In early spring, when soils are cold and often wet, use Microtech or Partner, and atrazine. This combination will control weeds without causing crop injury when conditions for germination and emergence are adverse. Beware of atrazine carryover following early corn harvest. If atrazine residue is unacceptable, rely on postemergence herbicide applications to control broadleaf weeds.

As the soil begins to warm, begin to substitute Bladex for atrazine to reduce carryover problems. Favor Atrazine in the mix earlier in the spring. Increase the Bladex and decrease the atrazine as the soil warms. Eliminate atrazine and use only Bladex when the soil is warm and corn emerges quickly. Switch to Eradicane or Dual II preplant incorporated instead of Microtech or Partner if yellow nutsedge is a serious problem.

Consult the Commercial Production Recommendations for rates and additional information.

Grown on Plastic Mulch

✔ Cucurbits (cucumbers, melons, squash): Use Prefar before laying plastic mulch to aid in the control of weeds at the planting hole. Spray the full recommended rate on the soil surface after bedding, but before laying the mulch. Condensation from soil moisture will activate the herbicide. Irrigate only if dry conditions prevail. Consult the Commercial Production Recommendations for rates and additional information.

✔ Tomato: Use Devrinol before laying plastic mulch to aid in the control of weeds at the planting hole. Spray on the soil surface after bedding and incorporate shallowly or active the herbicide with rainfall or irrigation before laying the mulch. Consult the Commercial Production Recommendations for rates and additional information.

✔ Pepper: Use Devrinol before laying plastic mulch to aid in the control of weeds at the planting hole. Spray on the soil surface after bedding and incorporate shallowly or activate the herbicide with rainfall or irrigation before laying the mulch. Consult the Commercial Production Recommendations for rates and additional information.

✔ Eggplant: Use Devrinol before laying plastic mulch to aid in the control of weeds at the planting hole. Spray on the soil surface after bedding and incorporate shallowly or activate the herbicide with rainfall or irrigation before laying the mulch. Consult the Commercial Production Recommendations for rates and additional information.

irrigation before laying the mulch. Consult the Commercial Production Recommendations for rates and additional information.

Dacthal Product Label Cancellation

The herbicide DCPA, marketed under the trade name DACTHAL 75WP has been an important herbicide to New Jersey vegetable farmers for decades. Due to shrinking market share, the manufacturer has discontinued production. Existing supplies can be used, but no additional product will be available after supplies are exhausted.

Prefar 4EC has received a supplemental label that covers many of the crops Dacthal has been used on, including:

<table>
<thead>
<tr>
<th>Cole Crops</th>
<th>Leafy Vegetables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese broccoli</td>
<td>arugula</td>
</tr>
<tr>
<td>broccoli raab</td>
<td>cardoon, celery</td>
</tr>
<tr>
<td>collards</td>
<td>Chinese celery</td>
</tr>
<tr>
<td>Chinese cabbage (boc choi &amp; napa)</td>
<td>(transplanted)</td>
</tr>
<tr>
<td>all Chinese brassica crops</td>
<td>chervil</td>
</tr>
<tr>
<td>kale</td>
<td>cress (garden &amp; upland)</td>
</tr>
<tr>
<td>kohlrabi</td>
<td>dandelion</td>
</tr>
<tr>
<td>mizuna</td>
<td>endive</td>
</tr>
<tr>
<td>mustard greens</td>
<td>fennel</td>
</tr>
<tr>
<td>rape greens</td>
<td>parsley</td>
</tr>
<tr>
<td>Fruiting Vegetables</td>
<td>radicchio</td>
</tr>
<tr>
<td>tomatillo</td>
<td></td>
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</tbody>
</table>

The regular Prefar 4EC label continues to list many other vegetables including cucurbit crops, more common cole crops like cabbage, broccoli, etc., lettuce, carrots, onion crops, and eggplant and peppers.

Prefar should be applied preplant (transplanted crops) or preemergence (direct seeded crops), at the rate of 1.5 gallon of Prefar 4EC per acre, and activated with about one half inch of rainfall or irrigation. Results when Prefar is at lower rates or is mechanically incorporated have been less satisfactory.

Prefar 4EC will control annual grasses and certain annual broadleaf weeds, including pigweed species, common lambsquarter, and common purslane. These are the same broadleaf weeds that were controlled by Dacthal! Note that galinsoga is not controlled. To obtain the most effective broadleaf weed control, use the full rate of one gallon of Prefar 4EC per acre and activate with irrigation or rainfall before weeds germinate. Mechanical incorporation may reduce broadleaf weed control!

Observe a rotation crop restriction of 120 days before planting crops that are not listed on the Prefar 4EC label.

Consult the Commercial Production Recommendations for rates and additional information.
Vegetable Crops Diseases
Stephen A. Johnston, Ph.D., Plant Pathology

✓ Asparagus: For nursery production of crowns, be sure to use Clorox-treated seed, and to place nursery in a field without a history of asparagus production to minimize the incidence of Fusarium root and crown rot. When establishing a new production field, use crowns that are free of Fusarium root and crown rot, and plant one of the New Jersey hybrids, which have good vigor.

✓ Cole Crops: Maintain applications of Ridomil Gold/Bravo, manebe or Aliette as a foliar spray for control of downy mildew. For establishing new fields, be sure pH is as close to 7.0 as possible, improve the drainage in the field and produce the crop on raised beds for the control of clubroot.

✓ Cucumbers: Damping-off caused by the fungus, Pythium, is present in some transplants at this time. Infected seedlings collapse, and there is a water-soaked, girdling lesion at the base of the stem. Transplant trays should not be in contact with soil, and avoid overwatering to reduce conditions for disease development.

✓ Eggplant: When establishing fields for transplanting, select well-drained sites and produce the crop on raised beds to reduce conditions favorable for the development of Phytophthora blight.

✓ Leeks: Fusarium basal rot is present in some fields at this time. Infected plants are stunted; chlorotic stripes appear on the foliage; and some roots are collapsed. No control measures are available at this time. Improve soil fertility conditions to stimulate more root growth.

✓ Lettuce: Maintain applications of Ronilan or Rovral as a directed spray to the base of the plants and surrounding soil shortly after thinning or transplanting, 10 and 20 days later for control of drop.

✓ Pepper: When establishing fields for transplanting, select well-drained sites; prepare raised beds with bed shaping equipment; allow for drainage out of the field at the ends of beds by making a drainage ditch to reduce conditions of high soil moisture during heavy rainfalls allowing for less incidence of Phytophthora blight.

✓ Spinach: Observe fields for the presence of white rust. Once observed in fields several weeks from harvest, apply Kocide LF (1 qt/A) for control. Kocide 4.5LF is a new formulation that is replacing Kocide LF, and is a higher concentrated form of the fungicide. Since supplies of Kocide LF are nearly exhausted, use Kocide 4.5LF at 1.33 pt/A rather than the 1 qt/A rate used for Kocide LF. For fields closer to harvest, apply Aliette 80WDG to avoid potential phytotoxicity from use of copper fungicides close to harvest.

✓ Tomato: Some transplants in greenhouses have necrotic specks over the older leaves. This is the result of drought stress or windburn, and is not a bacterial disease. Bacterial leaf diseases are characterized by black, angular shaped lesions with a water-soaked border on the underside of the leaf beneath the lesion. Maintain applications of streptomycin (Agri-Strep, etc.) as a foliar spray every 5-7 days until transplanting for prevention of bacterial leaf diseases.

PESTS FROM PAGE 1

have traps in the field, check them frequently for adult activity. A Special Local Needs Label (NJ SLN 24-C) is still in effect for the use of Guthion WP or 2S. Do not exceed 3 applications per year. A copy of the label must be in the possession of applicator at time of use.

Strawberry Plasticulture Twilight Meeting
Wednesday, April 29, 6:30 p.m.
Donio Farms, Inc.
3rd Street, Hammonton, NJ 08037
609-561-4880

6:30 p.m. “Welcome and Background”
(Donio to Plasticulture Plots northwest of 3rd street - Peach Packing House)
Dennis Donio, Donio Farms, Inc.
Jerry Frecon, Agricultural Agent,
Rutgers Cooperative Extension

6:40-7:00 “System Basics and R&D Update”
Dr. Joseph Fiola, Specialist in Small Fruits and Viticulture, Rutgers Cooperative Extension

7:00-7:10 “Row Covers with Hoops”
Peter Probasco, Agricultural Agent,
Rutgers Cooperative Extension

7:10-7:30 “Strawberry Plasticulture Disease Management”
Dr. Paul Steiner, Extension Plant Pathologist, University of Maryland Cooperative Extension

7:30-7:50 “Spacing Trials and Varieties in South Jersey”
Dr. Steve Garrison, Specialist in Vegetable Crops, Rutgers Cooperative Extension

7:50-8:10 “Strawberry Plasticulture Weed Management”
Dr. Bradley Majek, Specialist in Weed Science, Rutgers Cooperative Extension

The program will highlight a large commercial planting and a trial of the NJAES Strawberry Breeding Selections.
NJDEP pesticide applicator units will be available.
The farm is not accessible to the physically impaired. Special arrangements can be made by calling Jerry Frecon at 609-863-0110, 1 day prior to the meeting.
PLANT & PEST ADVISORY

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Pesticide User Responsibility: Use pesticides safely and follow instructions on labels. The user is responsible for the proper use of pesticides, residues on crops, storage and disposal, as well as damages caused by drift. For specific labels, special local-needs label 24(c) registration, or section 18 exemption, contact Rutgers Cooperative Extension of your County.

Use of Trade Names: Trade names are used in this publication with the understanding that no discrimination is intended and no endorsement is implied. In some instances the compound may be sold under different trade names, which may vary as to label clearances.