

Inspire Super--16.0 to 20.0 fl oz. 2.82SC/A (Purple blotch only), or  
Endura--6.8 oz 70WG/A (for purple blotch only)

Materials with different modes of action (FRAC code) should always be alternated.

**White Rot (Sclerotium)**

This disease is severe only on overwintered leeks. Disease development is favored by cool, moist soil conditions. The soil temperature range for infection to occur ranges from 50° to 75°F, with optimum being 60° to 65°F. At soil temperatures above 78°F, the disease is greatly inhibited. Sclerotia can survive for over 20 years, even in the absence of a host plant. Soil moisture conditions that are favorable for leek, garlic and onion growth are also ideal for white rot development.

Apply Folicur--4.0-6.0 fl oz 3.6F/A (10–14 day interval) (suppression only)

In treated fields, do not grow crops other than leek and leafy vegetables during the harvest year, and do not grow leeks, garlic, leafy vegetables, tomatoes, root crops, cereal grains, or soybeans during the following year.

**LETTUCE, ENDIVE,  
AND ESCAROLE**

Lettuce and endive are cool-season crops. Properly hardened lettuce transplants can tolerate temperatures as low as 20° to 25°F (-6.67° to -3.89°C). Temperatures above 85°F (29.4°C) for several days will cause seedstalk formation and bolting in lettuce. Temperatures below 70°F (21.1°C) during the seedling stage promote premature seedstalk formation in endive and escarole.

**Varieties**

Varieties <sup>1</sup>	DE	MD	NJ	PA	VA	WV
<b>Lettuce: Bibb, Boston and Butterhead Types</b>						
Ermosa (DMR,LMV,TBR)			N	P	V	WV
Buttercrunch	D		N	P	V	WV
Odyssey (TBR)				P		
Esmeralda	D	M	N	P		WV
Optima			N	P		
Bennett				P		
Harmony (DMR,TBR)				P		
Summer Bibb	D		N	P	V	WV
<b>Lettuce: Iceberg Types</b>						
Summer Time				P		
Ithaca (spring)	D	M	N			WV
Ithaca (fall)	D	M	N	P		WV
Maverick II (spring and fall)			N	P		
Mesa 659 (fall)	D	M	N	P		WV
<b>Lettuce: Leaf Types</b>						
Grand Rapids (TBR)	D	M	N	P	V	WV
Royal Green (TBR)	D	M	N	P	V	WV
<b>Lettuce: Leaf Types</b>						
New Redfire			N	P	V	WV
Red Sails (Direct Market)						WV
Salad Bowl (Direct Market)	D	M		P		WV
Royal Oakleaf				P		

(table continued next column)

**Varieties (continued)**

Varieties <sup>1</sup>	DE	MD	NJ	PA	VA	WV
<b>Lettuce: Leaf Types</b>						
Waldmann's Green	D		N	P		
Tropicana				P		
<b>Lettuce: Leaf Types (continued)</b>						
Two Star			N	P	V	WV
Red Express				P		
<b>Lettuce: Romaine (COS) Types</b>						
Ideal Cos (spring,fall)(TBR)			N	P	V	WV
Green Forest (CRR,TBR)	D		N	P	V	WV
Coastal Star (CRR)				P		
Rouge de Hiver (red)(fall)				P		
Capistrano (TBR, heat resistant)				P		
Pyramid Cos			N	P		
<b>Lettuce: Batavia Types</b>						
Magenta (red)				P		
Nevada				P		
<b>Endive</b>						
Green Curled	D		N	P	V	WV
Salad King	D		N	P		WV
<b>Escarole</b>						
Florida Deep Heart	D		N	P		WV
Full Heart Batavian	D		N	P	V	WV

<sup>1</sup>Varieties listed by maturity, earliest first.#

Letters in parentheses indicate disease resistance possessed by varieties. See the "Abbreviations" section in front portion of this publication.

**Recommended Nutrients Based on Soil Tests**

Before using the table below, refer to important notes in Plant Nutrient Recommendations in Section B, Soil And Nutrient Information. These notes provide additional suggestions to adjust rate, timing and placement of nutrients depending on soil type cation exchange capacity and existing fertility levels.

Crop	Soil Phosphorus			Soil Potassium			
	Pounds N per Acre	Level		Level			
		Low	Med	Opt.	Low	Med	Opt.
	Pounds P <sub>2</sub> O <sub>5</sub> per Acre	Pounds P <sub>2</sub> O <sub>5</sub> per Acre	Pounds P <sub>2</sub> O <sub>5</sub> per Acre	Pounds K <sub>2</sub> O per Acre	Pounds K <sub>2</sub> O per Acre	Pounds K <sub>2</sub> O per Acre	
Leaf Lettuce	100-125 <sup>1</sup>	200 <sup>1</sup>	150 <sup>1</sup>	100 <sup>1</sup>	200 <sup>1</sup>	150 <sup>1</sup>	100 <sup>1</sup>
Endive,	50-75 <sup>2</sup>	200 <sup>2</sup>	150 <sup>2</sup>	100 <sup>2</sup>	200 <sup>2</sup>	150 <sup>2</sup>	100 <sup>2</sup>
Escarole	25-50 <sup>3</sup>	0	0	0	0	0	0
Iceberg Lettuce	60-80 <sup>1</sup>	200 <sup>1</sup>	150 <sup>1</sup>	100 <sup>1</sup>	200 <sup>1</sup>	150 <sup>1</sup>	100 <sup>1</sup>
	25-50 <sup>2</sup>	200 <sup>2</sup>	150 <sup>2</sup>	100 <sup>2</sup>	200 <sup>2</sup>	150 <sup>2</sup>	100 <sup>2</sup>
	25-30 <sup>3</sup>	0	0	0	0	0	0

<sup>1</sup>Total amount nutrient recommended; growers producing vegetables on soils with high clay contents should reduce the recommended nitrogen and potassium rates by 20% and increase the phosphorus rate by 25%.

<sup>2</sup>Broadcast and disk-in

<sup>3</sup>Sidedress 3-5 weeks after planting

**Seed Treatment**

Treat seeds to prevent disease. See the Disease section for more information.

## Seeding and Transplanting

*Spring crop.* The early endive crop is usually grown from transplants shipped into the state. Lettuce transplants are started in frames or greenhouses. Seed for the lettuce crop is sown in frames in November, in unheated greenhouses in December, and in heated greenhouses in January and February at the rate of 4 to 6 ounces of seed for 1 acre of plants. Plants are ready for field planting early in March.

Direct-seeded lettuce is sown in prepared beds as early in the spring as the ground can be worked. Seed should be sown shallow—some of the seed will actually be uncovered and visible. Pelleted seed should be watered at night during high-temperature periods (soil temperatures above 80°F [26.7°C]) until germination occurs. The spring lettuce crop can be field-seeded through May. In Maryland, field-seeding in May results in seed stalk formation. Only leaf lettuce should be seeded as late as May. Successive plantings of endive can be made through the middle of August.

*Fall lettuce crop.* Seed in the field July 25 to August 10 in Pennsylvania and other cool areas, and August 5 to 20 in warmer areas.

## Spacing

**Lettuce.** Head lettuce is planted in rows 2 feet apart with plants 12 to 15 inches apart in the row. Leaf and Boston type lettuce are planted 3 to 4 rows per bed with beds spaced 66 to 72 inches on centers. Space plants 9 to 12 inches apart in the row.

**Endive.** Plant three to four rows per bed and space beds 66 to 72 inches on centers. Space plants 9 to 15 inches apart in the row.

## Weed Control

Identify the weeds in each field and select recommended herbicides that control those weeds. See Tables E-2 and E-3.

Match preplant incorporated and preemergence herbicide rates to soil type and percent organic matter in each field.

Apply postemergence herbicides when crop and weeds are within recommended size and/or leaf stage.

Find the herbicides you plan to use in the Herbicide Resistance Action Committee's (HRAC) **Herbicide Site of Action Table E-7** and follow the recommended good management practices to minimize the risk of herbicide resistance development by weeds in your fields.

Bensulide--5-6 lb/A. Apply 5 to 6 quarts per acre Prefar 4E before planting and incorporate 1 to 2 inches deep with power-driven rotary cultivators, or apply preemergence and activate with one-half inch of sprinkler irrigation within 36 hours to control most annual grasses. Use the maximum recommended rate preemergence followed by irrigation to suppress certain annual broadleaf weeds including common lambsquarters, smooth pigweed, and common purslane.

Pronamide--1-2 lb/A. Apply 2 to 4 pounds per acre Kerb 50W to seeded or transplanted lettuce. Labeled for all types of lettuce plus endive and escarole. Irrigation (1 to 2 inches) should follow application. Primarily controls annual grasses and certain broadleaf weeds. Unlabeled crops should not be planted for 3 to 12 months, depending on herbicide rate used and crop. See label. Labeled crops include heading lettuce varieties, endive, and escarole.

## Postemergence

Clethodim--0.094-0.125 lb/A. Apply 12 to 16 fluid ounces of Select Max 0.97EC with nonionic surfactant to be 0.25% of the spray solution (1 quart per 100 gallons of spray solution) postemergence to control many annual and certain perennial grasses, including annual bluegrass. Select will not consistently control goosegrass. Control may be reduced if grasses are large or if hot, dry weather or drought conditions occur. For best results, treat annual grasses when they are actively growing and before tillers are present. Repeated applications may be needed to control certain perennial grasses. Yellow nutsedge, wild onion, or broadleaf weeds will not be controlled. Do not tank-mix with or apply within 2 to 3 days of any other pesticide unless labeled, as the risk of crop injury may be increased, or reduced control of grasses may result. Observe a minimum preharvest interval of 14 days.

Sethoxydim--0.2-0.3 lb/A. Apply 1 to 1.5 pints per acre Poast 1.5EC with oil concentrate to be 1 percent of the spray solution (1 gallon per 100 gallons of spray solution) postemergence to control annual grasses and certain perennial grasses. **The use of oil concentrate may increase the risk of crop injury when hot or humid conditions prevail.** To reduce the risk of crop injury, omit additives or switch to nonionic surfactant when grasses are small and soil moisture is adequate. Control may be reduced if grasses are large or if hot, dry weather or drought conditions occur. For best results, treat annual grasses when they are actively growing and before tillers are present. Repeated applications may be needed to control certain perennial grasses. Yellow nutsedge, wild onion, or broadleaf weeds will not be controlled. Do not tank-mix with or apply within 2 to 3 days of any other pesticide unless labeled, as the risk of crop injury may be increased, or reduced control of grasses may result. Observe a minimum preharvest interval of 30 days (head types) or 15 days (leaf types) and apply no more than 3 pints per acre in one season. Labeled for head and leaf-type lettuces.

## Postharvest

Paraquat--0.6 lb/A. **A Special Local-Needs 24(c) label has been approved for the use of Gramoxone Inteon 2SC or OLF for postharvest desiccation of the crop in Delaware, New Jersey and Virginia.** Apply 2.4 pints per acre Gramoxone Inteon 2SC or OLF as a broadcast spray after the last harvest. Add nonionic surfactant according to the labeled instructions. See the label for additional information and warnings.

## Insect Control

**NOTE:** Copies of specific insecticide product labels can be downloaded by visiting the websites [www.CDMS.net](http://www.CDMS.net) or [www.Greenbook.org](http://www.Greenbook.org). Also, specific labels can be obtained via web search engines.

**NOTE: NOT ALL PESTICIDES ARE LABELED FOR EACH CROP IN THIS SECTION. REFER TO DAYS TO HARVEST TABLE AT THE END OF THIS SECTION TO DETERMINE WHICH PESTICIDES ARE LABELED ON SPECIFIC CROPS.**

**Cutworms** (Also see Chapter E the "Cutworms" section in "Soil Pests--Their Detection and Control".)

beta-cyfluthrin (Baythroid XL)

bifenthrin (Brigade EC, Sniper, or OLF)  
 carbaryl (Sevin 5%Bait or OLF)  
 cyfluthrin (Renounce 20WP, Tombstone or OLF)  
 flubendiamide (Synapse)  
 flubendiamide + buprofezin (Vetica)  
 lambda-cyhalothrin (Lambda-cy, LambdaT, Silencer,  
 Warrior II, or OLF)  
 lambda-cyhalothrin + chlorantraniliprole (Voliam xpress)  
 methomyl (Lannate LV or OLF)  
 permethrin (Perm-Up, Pounce 3.2EC or OLF)  
 zeta-cypermethrin (Mustang MAX, Respect or OLF)  
 zeta-cypermethrin+bifenthrin (Hero EC)

### Thrips

Several species of thrips spread Tomato Spotted Wilt Virus. Scout for thrips and begin treatments when observed. Do not produce vegetable transplants with bedding plants in the same greenhouse.

beta-cyfluthrin (Baythroid XL)  
 cyfluthrin (Renounce 20WP, Tombstone or OLF)  
 methomyl (Lannate LV or OLF)  
 spinetoram (Radiant 2SC)  
 spinosad (Entrust 80W, SpinTor 2SC or OLF)  
 zeta-cypermethrin (Mustang MAX, Respect or OLF)  
 zeta-cypermethrin+bifenthrin (**onion thrips**) (Hero EC)

### Leafhopper

Control of leafhoppers will prevent spread of lettuce yellows. In the spring, spray when plants are one-half inch tall; repeat as needed. In the fall, spray seedlings four to five times at 5-day intervals:

acephate (Orthene 97S or OLF)  
 beta-cyfluthrin (Baythroid XL)  
 bifenthrin (Brigade EC, Sniper or OLF)  
 cyfluthrin (Renounce 20WP, Tombstone or OLF)  
 dimethoate (Dimate 4EC or OLF)  
 dinotefuron (soil/foiar-Scorpion 35SL, Venom 70SG or OLF)  
 gamma-cyhalothrin (Proaxis)  
 imidacloprid (soil-Admire PRO; foliar-Nuprid 1.6F, Provado 1.6F or OLF)  
 lambda-cyhalothrin (Lambda-cy, LambdaT, Silencer, Warrior II, or OLF)  
 methomyl (Lannate LV or OLF)  
 permethrin (Perm-Up, Pounce 3.2EC or OLF)  
 thiamethoxam (soil-Platinum 75SG; foliar-Actara 25WDG)  
 zeta-cypermethrin (Mustang MAX, Respect or OLF)  
 zeta-cypermethrin+bifenthrin (Hero EC)

### Aphid

On fall crop, seedling protection from aphids is important. Spray if the aphid population reaches 1 aphid/plant during the seedling stage of plant development, or >4 aphids/plant beyond the seedling stage:

acephate (Orthene 97S or OLF)  
 acetamiprid (Assail 30SG or OLF)  
 diazinon (Diazinon 4EC or OLF)  
 dimethoate (Dimate 4EC or OLF)  
 flonicamid (Beleaf 50SG)  
 imidacloprid (soil-Admire PRO; foliar-Nuprid 1.6F, Provado 1.6F or OLF)  
 methomyl (Lannate LV or OLF)  
 pymetrozine (Fulfill 50WP)

spirotetremat (Movento)  
 thiamethoxam (soil-Platinum 75SG; foliar-Actara 25WDG)

### Leafminer

abamectin (Abba EC, Agri-mek EC, Temprano or OLF)  
 cyromazine (Trigard 75WSP)  
 dimethoate (Dimate 4EC or OLF)  
 dinotefuron (soil/foiar- Scorpion 35SL, Venom 70SG or OLF)  
 permethrin (Perm-Up, Pounce 3.2EC or OLF)  
 spinetoram (Radiant 2SC)  
 spinosad (Entrust 80W, SpinTor 2SC or OLF)

### Cabbage Looper

*Bacillus thuringiensis* (Biobit, Dipel, Dipel 2X, Javelin, XenTari or OLF)  
 beta-cyfluthrin (Baythroid XL)  
 bifenthrin (Brigade EC, Sniper or OLF)  
 chlorantraniliprole (soil, drip, foliar-Coragen 1.67SC)  
 cyfluthrin (Renounce 20W, Tombstone or OLF)  
 emamectin benzoate (Proclaim 5SG)  
 flubendiamide + buprofezin (Vetica)  
 gamma-cyhalothrin (Proaxis)  
 indoxycarb (Avaunt 30WDG)  
 lambda-cyhalothrin (Lambda-cy, LambdaT, Silencer, Warrior II or OLF)  
 lambda-cyhalothrin + chlorantraniliprole- Voliam xpress  
 methomyl (Lannate LV or OLF)  
 methoxyfenozide (Intrepid 2F)  
 permethrin (Perm-Up, Pounce 3.2EC or OLF)  
 spinetoram (Radiant 2SC)  
 spinosad (Entrust, SpinTor or OLF)  
 tebufenozide (Confirm 2F)  
 thiodicarb (Larvin 3.2F)  
 zeta-cypermethrin (Mustang MAX, Respect or OLF)  
 zeta-cypermethrin+bifenthrin (Hero EC)

### Beet Armyworm

chlorantraniliprole (soil, drip, foliar-Coragen 1.67SC)  
 emamectin benzoate (Proclaim 5SG)  
 flubendiamide (Synapse WG)  
 flubendiamide + buprofezin (Vetica)  
 indoxycarb (Avaunt 30WDG)  
 methomyl (Lannate LV or OLF)  
 methoxyfenozide (Intrepid 2F)  
 spinetoram (Radiant 2SC)  
 spinosad (Entrust 80W, SpinTor 2SC or OLF)  
 tebufenozide (Confirm 2F)

### Corn Earworm (CEW)

**Note.** Head lettuce seedlings, in the 7- to 18-leaf stage, are vulnerable to CEW attack in August to September. Control must be achieved before center leaves start to form a head (15- to 18-leaf stage). Apply Lannate every 2 to 5 days or permethrin every 5 to 10 days according to CEW moth populations and pest management alerts:

beta-cyfluthrin (Baythroid XL)  
 bifenthrin (Brigade EC, Sniper or OLF)  
 chlorantraniliprole (soil, drip, foliar-Coragen 1.67SC)  
 cyfluthrin (Renounce 20WP, Tombstone or OLF)  
 emamectin benzoate (Proclaim 5SG)  
 flubendiamide (Synapse)  
 flubendiamide + buprofezin (Vetica)  
 gamma-cyhalothrin (Proaxis)

lambda-cyhalothrin (Lambda-cy, LambdaT, Silencer, Warrior II or OLF)  
 lambda-cyhalothrin + chlorantraniliprole – Voliam xpress  
 methomyl (Lannate LV or OLF)  
 permethrin (Perm-Up, Pounce3.2EC or OLF)  
 spinetoram (Radiant 2SC)  
 spinosad (Entrust 80W, SpinTor 2SCor OLF)  
 thiodicarb (Larvin 3.2F)  
 zeta-cypermethrin+bifenthrin (Hero EC)

**Tarnished Plant Bug**

This insect can cause serious damage to the fall crop; it is usually numerous where weeds abound.

beta-cyfluthrin (Baythroid XL)  
 bifenthrin (Brigade EC, Sniper or OLF)  
 carbaryl (Sevin 80S or OLF)  
 cyfluthrin (Renounce 20WP, Tombstone or OLF)  
 gamma-cyhalothrin (Proaxis)  
 lambda-cyhalothrin (Lambda-cy, LambdaT, Silencer, Warrior II or OLF)  
 zeta-cypermethrin (Mustang MAX, Respect or OLF)  
 zeta-cypermethrin+bifenthrin (Hero EC)

Pesticide	Use Category <sup>1</sup>	Hours to Reentry <sup>2</sup>	Days to Harvest			
			Head Let.	Leaf Let.	En-Scalve	Esca-role
<b>INSECTICIDE</b>						
abamectin(Agri-mek)R		12	7	7	7	7
acephate	G	24	21	-	-	-
acetamiprid	G	12	7	7	7	-
<i>Bacillus thuringiensis</i>	G	4	0	0	0	0
beta-cyfluthrin	R	12	0	0	0	0
bifenthrin	R	12	7	-	-	-
carbaryl	G	12	14	14	14	14
chlorantraniliprole	G	4	1	1	1	1
cyfluthrin	R	12	0	0	0	0
cyromazine	G	12	7	7	7	7
dimethoate	R	48	7	14	14	14
dinotefuran (soil)	G	12	21	21	21	21
(foliar)	G	12	7	7	7	7
emamectin benzoate	G	12	7	7	7	7
flonicamid	G	12	0	0	0	0
flubendiamide	G	12	1	1	1	1
flubendiamide + buprofezin	G	12	7	7	7	7
gama-cyhalothrin	R	24	1	1	-	-
imidacloprid (soil)	G	12	21	21	21	21
imidacloprid (foliar)	G	12	7	7	7	7
indoxacarb	G	12	3	3	3	3
lambda-cyhalothrin	R	24	1	1	-	-
lambda-cyhalothrin + chlorantraniliprole	R	24	1	1	-	-
methomyl (<1.5 pt)	R	48	7	7	10	10
methomyl (>1.5 pt)	R	48	10	10	10	10
methoxyfenozide	G	4	1	1	1	1
permethrin	R	12	1	1	1	-
phorate	R	48	At plant application only-			
pymetrozine	G	12	7	7	7	-
spinetoram	G	4	1	1	1	1
spinosad	G	4	1	1	1	1

(table continued next column)

(continued)

Pesticide	Use Category <sup>1</sup>	Hours to Reentry <sup>2</sup>	Days to Harvest			
			Head Let.	Leaf Let.	En-Scalve	Esca-role
<b>INSECTICIDE</b>						
spirotetramat	G	24	3	3	3	3
tebufenozide	G	4	7	7	7	7
thiodicarb	R	48	14	14	14	14
thiamethoxam(foliar)	G	12	7	7	7	-
zeta-cypermethrin	R	12	1	1	1	1
zeta-cypermethrin +bifenthrin	R	12	7	-	-	-
<b>FUNGICIDE (FRAC code)</b>						
Aliette (Group 33)	G	12,24	3	3	3	3
Botran (Group 14)	G	12	14	14	14	14
Contans WG (biological)	G	4	0	0	0	0
Endura (Group 7)	G	12	14	14	--	--
Forum (Group 40)	G	12	0	0	0	--
iprodione (Group 2)	G	12	14	14	14	14
MetaStar (Group 4)	G	48	At plant application only			
Previcur Flex (Group 28)	G	12	2	2	2	2
Quadris (Group 11)	G	4	0	0	0	0
Revus (Group 40)	G	4	1	1	1	--
Ridomil Gold (Group 4)	G	12	At plant application only			
Tanos (Groups 11 + 27)	G	12	3	--	--	--
Ultra Flourish (Group 4)	G	48	At plant application only			

See Table D-6.

<sup>1</sup> G = general, R = restricted

<sup>2</sup> Chemicals with multiple designations are based on product and/or formulation differences. CONSULT LABEL.

Dash (-) in table indicates pesticide is NOT labeled for that crop.

**Disease Control**

**Seed Treatment**

Dust seed with thiram 65WP at the rate of 1 level teaspoon per pound of seed (3 ounces per 100 pounds). See table E-13 for additional seed treatment options.

**Damping-Off and Other Seedling Diseases**

(See the "Disease Control in Plantbeds" section in this publication.) Apply the following in a 7-inch band after seeding or transplanting. Use formula given in the "Calibration for Changing from Broadcast to Band Application" section of Calibrating Granular Application Equipment to determine amount of Ridomil Gold or Ultra Flourish needed per acre:

mefenoxam--(Ridomil Gold--1.0-2.0 pt 4SL/A or 2.0-4.0 pt Ultra Flourish 2E/A), or  
 metalaxyl (MetaStar)--4.0 to 8.0 pt 2EAG/A

At planting, application of mefenoxam or metalaxyl will also help suppress Downy mildew development.

**Big-Vein**

The disease is favored by cool temperatures (<60°F) and high soil moisture conditions. Produce the crop on raised beds and avoid planting in fields with low-lying areas. Soil

fumigation is helpful. Refer to the “Soil Fumigation” section for details on application.

**Corky Root**

Development of the disease is favored by continual cropping and by high soil moisture conditions. Cultural practices that reduce soil compaction, such as the use of a rye cover crop and use of high beds should be considered. Limiting irrigation between transplanting or thinning should be adopted to reduce disease incidence.

**Downy Mildew**

An application of mefenoxam (Ridomil Gold 4SL or Ultra Flourish 2E), or metalaxyl (MetaStar 2E) for damping-off will assist in the control of early-season downy mildew. See "Damping-Off and Other Seedling Diseases" above for use pattern. Use one of the following during periods of high moisture and moderate temperatures.

**Alternate:**

Aliette--3.0 lb 80WDG/A (14-day schedule)

**With one of the following FRAC code 40 fungicides:**

Revus--8.0fl. oz 2.08SC/A, or

Forum--6.0 fl oz 4.18SC/A

**or one of the following FRAC code 11 fungicides:**

Quadris--6.0–15.5 fl oz 2.08SC/A, or

Tanos--8.0 oz 50W/A, or

Previcur Flex--1.33 pt 6F/A

**Leaf Spots**

When conditions favor disease development, alternate the following and repeat every 7 to 14 days:

Quadris--6.0–15.5 fl oz 2.08SC/A, or

**Bottom Rot (Rhizoctonia)**

A midsummer application of a soil fumigant will be beneficial for the fall crop (Refer to “Soil Fumigation” section for details on materials and application techniques). For the spring and fall crops, all fields should receive one of the following fungicide applications one week after transplanting or thinning and at 10 and/or 20 days later if conditions warrant and/or cultivation has been done.

Endura--8.0-11.0 oz 70W/A (suppression only) (2 applications per season allowed), or

iprodione--1.5-2.0 lb 50WP/A or OLF (3 applications per season allowed)

Do not cultivate directly after applying either of the above (see labels for details)

**Lettuce Drop (Sclerotinia)**

Use one of the following at seeding, transplanting and/or thinning (see labels for restrictions):

iprodione--1.5-2.0 lb 50WP/A or OLF, (2 applications per season allowed), or

Endura--8.0-11.0 oz 70WG/A (3 applications per season allowed), or

Botran--2.0-5.5 lb 75WP/A (1 application allowed at high rate, see label for details, may cause temporary bronzing of leaves)

Do not cultivate directly after application (see labels for details)

*Preplant:* Apply 3 to 4 months prior to the anticipated

onset of disease to allow the active agent to reduce inoculum levels of sclerotia in the soil. Following application, incorporate to a depth of 1 to 2 inches but do not plow before seeding or transplanting lettuce to avoid untreated sclerotia in lower soil layers from infesting the upper soil layer.

Contans--2.0-4.0 lb 5.3WG/A

**Gray Mold (Botrytis)**

Gray mold is most troublesome in transplant greenhouses where air movement is poor and relative humidity remains high. Avoid overcrowding plants and water early in the day to help reduce leaf wetness overnight. If possible vent to reduce relative humidity.

Apply one of the following as a foliar spray:

Endura--8.0-11.0 oz 70W/A (2 applications per season allowed), or

Botran--3.0 tbsp 75WP/gal (greenhouse use) or 2.0-5.3 lb 75WP/A in field application (1 application allowed at high rate, see label for details, may cause temporary bronzing of leaves)

**Yellows**

Control leafhopper vectors with insecticides. Refer to the preceding "Leafhopper" section under Insect Control.

**Viruses**

*LMV* (lettuce mosaic virus): Use virus-free or MT lettuce seed.

*TuMV* (turnip mosaic virus): Troublesome in late summer and early fall plantings. Control weed hosts around irrigation risers and areas bordering fields.

**Tomato Spotted Wilt Virus (TSWV)**

TSWV is spread from flowering ornamental plants (flowers) to lettuce by thrips. Do not grow any ornamental bedding plants in the same greenhouse as lettuce transplants. Scout and monitor for greenhouse thrips regularly and begin an insecticide control program once observed.

**MUSKMELONS**

**Varieties**

Varieties <sup>1</sup>	DE	MD	NJ	PA	VA	WV
Halona*	D					
Athena* (PMR 1,2; FR 0,1,2)	D	M	N	P	V	WV
Strike* (PMR 2; FR 0,1,2)	D					
Aphrodite* (PMR 1,2; FR 0,1,2)	D	M	N	P	V	WV
Grand Slam* (PMR 1,2; FR 0,1,2)	D					
Minerva* (PMR 1,2; FR 0,1,2)	D					WV
Eclipse* (PMR,FR 2)		M	N	P	V	WV
Atlantis* (PMR 1,2; FR 0,1,2)	D					
Orange Sherbet* (PMR 2; FR 1,2)	D					
<b>Specialty Melons</b>						
Earli-Dew*	D	M	N	P	V	WV

<sup>1</sup> Varieties listed by maturity, earliest first.

\* Indicates hybrid varieties.

Letters in parentheses indicate disease resistance possessed by varieties. See the "Abbreviations" section in front portion of this publication.

**Recommended Nutrients Based on Soil Tests  
Before using the table below, refer to important**