



TEXAS AGRICULTURAL EXTENSION SERVICE

VALLEY VEGETABLE NOTES

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MELON MEETING NOVEMBER 16

The 1995 report on S. Texas melon research is being combined with the melon-cucurbit IPM workshop on Thursday November 16. Meeting registration will begin at 8:00 a.m. at the Texas A&M Research & Extension Center in Weslaco with a BBQ lunch at noon. For more information contact Dr. David Riley at (210) 968-5585.

AG SUMMIT COMING UP DECEMBER 7-8, 1995

AG Summit II will be held on December 7-8, 1995 at the Le Meridien Hotel in Dallas. This summit will emphasize facts about food safety, health and nutrition and is targeted to help dispel some of the misinformation concerning the production and processing of our food supply. If you would like to attend the summit contact: Jacque Hand, Conference Registration, Drawer #1, Aggieland Station, College Station, Texas 77844-1232, (409) 845-8904.

TEXAS VEGETABLE HERBICIDES

Lynn Brandenberger

We just recently completed working on updating the "Weed Control in Vegetable, Fruit and Nut Crops" bulletin. This Extension publication should be available in the near future, but in the mean time I am enclosing with this newsletter a copy of a table from the publication. The table lists most of the herbicides cleared for use on Texas vegetables and what crops they are cleared for. Check with your County Agent for the new publication which should be out in the next couple of months.

VEGETABLE DISEASE SITUATION

Tom Isakeit

Watermelons

Squash leaf curl virus: Where there's a lot of whiteflies, there's a lot of SLCV. The disease is prevalent; I have seen differences in the severity of symptoms among different fields. This fall,

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the virus was confirmed for the first time in Atascosa county.

Bacterial fruit blotch: This disease was found in two fields north of the Valley. I visited one of these fields and found that the incidence was low. Loss from this disease in this field was insignificant compared to the other problems present there. However, concern about this disease remains high.

Fruit rots: Two fields, each in Hidalgo and Duval counties, had problems with cottony leak, a fruit rot caused by the fungus, *Pythium aphanidermatum*. I feel the disease is probably more wide-spread than in these two fields, however. In early stages, the rind of infected watermelons has a discolored, somewhat water-soaked appearance, generally circular in shape. Later, the rind has a bleached appearance and at this time, the fruit will be collapsed. In contrast, with bacterial fruit blotch, affected areas are irregular in shape, have a distinctly water-soaked (darkened) appearance, and may be slightly raised. Furthermore, unless there are cracks in the fruit which are colonized by secondary organisms, the lesions of bacterial fruit blotch remain firm and the interior of the fruit is intact. In contrast, lesions caused by *Pythium* are soft and watery, and this extends into the meat. In advanced stages, the meat can be heard to "slosh" around when the fruit is shaken. The rot does not have a foul odor unless secondary organisms have entered. Under humid weather conditions, the fungus can grow as a fine, white cottony mass on the fruit.

Pythium aphanidermatum is a soilborne fungus. As I look, I continue to find it in different locations in south Texas. Unlike *Pythium* species that cause damping-off of seedlings, *P. aphanidermatum* grows best at very high temperatures. The problem with fruit rot was favored by wet conditions created by heavy rain in late September, followed by warm temperatures. This disease can not be controlled, but it will not always occur.

In Duval county, a fruit rot caused by the southern blight fungus, *Sclerotium rolfsii*, was also seen. The presence of this fungus can easily be diagnosed by

the presence of its resting structures (sclerotia) in the rotted area, which resemble mustard seeds. This fungus is also indigenous to soils in south Texas. Like *P. aphanidermatum*, disease is favored by very wet conditions followed by warm weather. If southern blight is quite prevalent, crop residue should be plowed under to a depth of one foot.

Tomatoes

P. aphanidermatum has a wide host range and under certain conditions, it can cause severe crop losses. This is one of the major soilborne pathogens in Arizona, but in south Texas, it looks like a pathogen of only occasional importance. I found it as a problem in a small acreage of tomatoes in Nueces county in September. The major symptom was wilt, which resembled the wilt caused by *Fusarium*. However, unlike *Fusarium oxysporum*, which causes a browning in the stem limited to the vascular system, stem browning caused by *P. aphanidermatum* was extensive. In fact, tissue was rotted, and a brown lesion on the outside of the lower stem could sometimes be seen. In plants with severe wilt, the inside of the stems were hollow, except for the presence of cottony, white growth (mycelium) of the fungus.

Depending upon the circumstances of disease development, this disease can be controlled by Ridomil. This should be based upon the recommendations of a plant pathologist. The activity of the pathogen will diminish as the average temperature decreases during the season. Thus, for the tomato grower in Nueces county, I did not anticipate a need for fungicidal treatment during the rest of the growing season.

LYNN BRANDENBERGER, Ph.D.

Associate Professor and Extension Specialist

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Recommended herbicides for Texas vegetable crops
Texas Agricultural Extension Service

Herbicides	A s p a r a g u s	B e a n s	C a n t a l o u p e	C a r r o t s	C e l e r y	C o l e C r o p s	C u c u m b e r	E g g p l a n t	G a r l i c	G r e e n s	L e t t u c e	O k r a	O n i o n	P e a s	P e p p e r s	P o t a t o	P u m p k i n	R a d i s h	S o u t h e r n P e a	S p i n a c h	S q u a s h	S w e e t C o r n	S w e e t P o t a t o	T a b l e B e e t s	T o m a t o	W a t e r m e l o n		
Alanap-L			X				X																					X
Aatrex																							X					
Balan											X																	
Basagran		X												X									X					
Buctril									X				X															
Caparol 4L					X																							
Chiptox MCPA														X														
Command 4EC																	X											
Dacthal W-75		X	X			X	X	X	X	X			X		X	X					X		X		X	X	X	X
Devrinol 50-DF	X					X		X							X											X		
Dual																X												
Eptam		X														X							X					
Formula 40	X																					X						
Goal						X							X															
Gramoxone	X	X	X	X		X	X	X	X	X	X		X		X	X	X				X	X				X	X	
Karmex	X																											
Kerb 50-W											X																	
Lexone	X															X										X		
Lorox DF				X	X																							
Poast	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X			X	X		X		X	X	X	X
Prefar			X	X		X	X				X		X		X		X				X							X
Prowl		X							X							X			X			X						

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Herbicides	A s p a r a g u s	B e a n s	C a n t a l o u p e	C a r r o t s	C e l e r y	C o l e C r o p s	C u c u m b e r	E g g p l a n t	G a r l i c	G r e e n s	L e t t u c e	O k r a	O n i o n	P e a s	P e p p e r s	P o t a t o	P u m p k i n	R a d i s h	S o u t h e r n P e a	S p i n a c h	S q u a s h	S w e e t C o r n	S w e e t P o t a t o	T a b l e B e e t s	T o m a t o	W a t e r m e l o n		
Pyramin																									X			
Ro-Neet																				X					X			
Roundup	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sencor 4	X			X												X										X		
Sinbar	X																											
Solicam	X																											
Thistrol															X													
Tillam																										X		
Treflan	X	X	X	X	X	X	X						X	X		X	X		X							X	X	
Tri-4													X		X	X			X							X		
Turbo 8-EC														X		X												

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