

## Elements of IPM for Winter Squash and Pumpkins in New York State

MAJOR PESTS			
Insects	Diseases	Rotation	Weeds
Major Insects	angular leaf spot	1 year	annual broadleaves
striped cucumber beetle	bacterial leafspot	1 year	annual grasses
spotted cucumber beetle	bacterial wilt	NA	perennial broadleaves
aphids	Alternaria	2 years	perennial grasses
	anthracnose	2 years	
<b>Minor/Sporadic Insects</b>	Fusarium crown and fruit rot	5 years	
squash bug	downy mildew	NA	
western corn rootworm	gummy stem blight (black rot)	2-3 years	
seed maggot	Phytophthora	>3 years*	
cutworms	powdery mildew	NA	
spider mites	Septoria leaf spot	2 years	
	<b>Viruses</b>	NA	
	damping off	NA	
	white mold	3 years	
* - duration of rotation uncertain    NA - not applicable			

A. Site Preparation and Selection	Acreage Goal	Points
1) Review previous season's weed map/list of fields to choose appropriate weed control strategies. See the Weed Assessment List available for use in satisfying this element.	50%	10
2) Crop rotation: 2-3 years away from cucurbits, more if needed for diseases indicated in table above	75%	10
3) Avoid tomatoes, peppers, and eggplant in rotation with cucurbits	25%	3
4) Nutrient management: soil test at least every third year. Fertilize according to test recommendations.	100%	10
5) Do not apply all nitrogen at planting: sidedress or topdress part of the total N application	75%	10
6) Choose sites with good air drainage; not surrounded by woods	25%	3

7) If manure is applied to field, apply only before planting and incorporate	100%	10
8) Try planting into killed mulch for weed control	1%	3
<b>B. Planting</b>		
1) Resistant varieties: Choose disease resistant varieties and varieties less-preferred by beetle pests when available and feasible.	50%	10
2) Use fungicide treated seed. Use seeder box treatment for seedcorn maggot only if conditions dictate	100%	10
3) Turn under any cover crop residue 3 weeks before planting to avoid seedcorn maggot	50%	5
<b>c. Pest Management</b>		
1) Calibrate sprayer at least once per season or every time nozzles are changed	100%	10
2) Scout for insects and diseases as recommended in IPM procedures	25%	3
	50%	5
	100%	10
3) Follow thresholds for pests for which thresholds have been established	25%	3
	50%	5
	100%	10
4) Follow management guidelines in Cornell IPM recommendations for pests that do not have thresholds	75%	10
5) Select fungicides based on a resistance management strategy	50%	10
7) Choose labeled pesticides with the lowest environmental impact	10%	3
8) Keep records of pest populations, pesticide applications, and cultural practices	100%	10
<b>D. Post Harvest</b>		
1) Make late season weed map/list for use the following season. See the Weed Assessment List available for use in satisfying this element.	50%	5
2) Disk down crop residue after harvest	10%	3
3) Establish a cover crop to scavenge nutrients and control weeds, or use spot applications of translocatable herbicide for control of perennial weeds	10%	3

Total points available: 158

Points needed to qualify (80%): 126

TO LEARN MORE...

Specific information on how to apply and use these IPM elements can be found in the following publications:

2000 Cucurbit IPM Scouting Procedures, IPM Bulletin 113

[Integrated Crop and Pest Management Guidelines for Commercial Vegetable Production.](#)

[A Method to Measure the Environmental Impact of Pesticides.](#) 1992. New York Food and Life Sciences Bulletin Number 139.

The above reference material can be obtained from county Cornell Cooperative Extension offices.