

## Elements of IPM for Fresh Market Sweet Corn in New York State

MAJOR PESTS		
Insects	Diseases	Weeds
European corn borer	common rust	broadleaves
corn earworm	smut	annual grasses
fall armyworm	northern corn leaf blight	perennials
corn flea beetle	Stewart's wilt	
corn leaf aphid	anthracnose	
western corn rootworm	maize dwarf mosaic	
seed corn maggot	seed rots	
cutworms	barley yellow dwarf virus	
common armyworm		
sap beetles		

A. Site Preparation	Priority	Points	Acreage Goal	Achieved
1) Review weed map/list of fields to choose appropriate weed control strategies. See the Weed Assessment List available for use in satisfying this element.	M	5	50%	
2) Crop Rotation. Plant only in fields where sweet or field corn has not been grown in the previous year to avoid corn root worm, anthracnose, smut, and northern corn leaf blight				
a. Fields harvested before Aug. 15:	L	3	25%	
b. Fields harvested after Aug. 15:	H	10	75%	
3) Soil test at least every three years; fertilize according to recommendation	H	10	100%	
B. Planting				
1) Use tolerant or resistant varieties whenever possible for controlling common rust, smut, and Stewart's wilt, NCLB, maize dwarf mosaic, barley yellow dwarf	M	5	25%	
2) Seed treatment. Use fungicide treated seed or biological seed treatment for control of root and seed rots.	H	10	100%	

3) Avoid use of granular, in-furrow insecticides in fields not at risk for seed corn maggot (risk factors include early plantings in cold soil and recently incorporated cover crops or other decomposing organic matter, Stewart's wilt (moderate or severe forecast) or history of garden symphylans).	L	3	25%	
4) (Optional) Test the use of banded herbicide applications and cultivation to reduce herbicide use.	L	3	1%	
<b>C. Post-EMERGENT Nutrient AND WEED Management</b>				
1) If you are using manure or plowing down a legume cover crop, Use PSNT to decide if additional sidedress N is needed	H	10	25%	
2) (Optional) In fields without annual grass populations, try a post-emergent weed control approach	L	3	1%	
<b>D. Pest Monitoring and Forecasting</b>				
1) Monitor flights of E and Z race ECB, CEW, and FAW on your farm using recommended pheromone traps and lures or use extension pheromone trap network information.	H	10	100%	
2) Scout as recommended for European corn borer, fall armyworm, corn earworm, flea beetles, and common rust.	H	10	75%	
3) Scout as recommended for weeds to use for evaluating the pre-emergent herbicide program and making postemergent treatment decision. See the Weed Assessment List available for use in satisfying this element.	H	10	75%	
<b>E. Pest Management</b>				
1) Calibrate sprayer(s) annually or more frequently as needed.	H	10	100%	
2) Use recommended action thresholds for making decisions about applying pesticides for insects and diseases of importance.	H	10	75%	
3) Choose effective pesticides that have the lowest environmental impact based on overall EIQ. OR Choose effective pesticides that preserve natural enemies based on natural enemy component of EIQ.	L	3	10% of applications	
4) Keep records of pest densities, pesticide applications, cultural pest management practices, and biological control techniques used.	H	10	100%	
5) Cultivate for weed control unless using zone or no till practices.	M	5	25%	
6) If birds are a problem, use an effective bird scare device just before crop maturity. Do not use poison.	M	5	10%	

<b>F. POST HARVEST</b>				
1) Update weed map/list after harvest to use when planning for next year. See the Weed Assessment List available for use in satisfying this element.	H	10	50%	
2) Establish cover crops for weed control and to scavenge leachable nitrates.	H	10	50%	
3) If needed, spot treat perennial weeds with a translocatable herbicide.	M	5	10%	
4) Mow or disk fields after harvest to reduce pest populations	H	10	60%	

Total Points: 164 (plus 6 optional)

80%            131

#### TO LEARN MORE...

New York IPM Elements can be found at <http://northeastipm.org/ny/index.html>

Specific information about the use of these IPM elements can be found in the following publications:

2000 Fresh Market Sweet Corn IPM Scouting Procedures, IPM Bulletin 111FM

Pheromone Traps - Effective Tools for Monitoring Lepidopterous Insect Pests of Sweet Corn. Sweet Corn Insect Pest Fact Sheet 102GFS795.00.

[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