

IPM Priorities for Vegetables in the Northeast - 2003

On November 10th and 11th, 2003 the Vegetable IPM Working Group of the Northeastern IPM Center met in Albany, New York to create a list of prioritized IPM needs for vegetable commodities of the Northeast in the categories of research and extension, potential invasive species, anticipated resistance problems, and general recommendations. Members of this group represent nine northeastern states including growers, crop consultants, processors, departments of agriculture, university researchers and extension specialists, and environmentalists. Membership changes over time. See a [list of membership](#) at the time these priorities were set.

Regionality	Crops Affected	Influence on Yield/Quality	Influence on Pesticide		Concern
			Availability of Controls	Pesticide Use Patterns	
3	2	1	2	1	Tarnished plant bug in beans, tomatoes, eggplant, pepper and strawberry
2	2	1	2	2	Stink bug on tomato, pepper, and bean
3	1	2	2	3	Striped cucumber beetle/bacterial wilt
2	1	1	2	1	Squash bug
3	2	3	2	3	Corn worm complex (corn earworm, fall armyworm, european corn borer) in sweet corn, potato, beans, leafy greens, and peppers.
3	1	3	2	3	Fungal pathogens on solanaceous crops.
3	1	2	2	3	Bacterial pathogens on tomatoes and peppers.
3	1	2	2	2	Wire worm on potatoes
2	1	1	2	2	Aphid control on leafy vegetables
3	3	3	3	2	Phytophthora of all the cucurbits, beans, and solanaceous crops.
3	3	2	2	1	Deer
3	1	2	2	1	Flea beetle in brassicas
2	1	1	2	1	Plectosporium (or microsporidium) in pumpkin and summer squash
3	2	3	2	1	Potato leafhopper in beans and potatoes especially in organic systems
2	1	2	2	1	Sap beetle on corn
3	1	na	na	3	Integration of worm pest management in transgenic sweet corn with public policy.
3	3	1	2	3	Difficulty of using no-till systems due to weed control problems
3	2	1	2	1	Galinsoga
3	1	1	2	1	Solanaceous weeds in solanaceous crops

3	3	1	2	1	Canadian thistle and other perennial weeds
3	3	1	2	3	Increase post-emergence weed control options, both chemical and cultural
3	3	2	na	3	Better understanding and use of crop rotations
1	1	3	2	3	Mushroom pests - see specifics in the pest management strategic plan
2	1	2	2	2	Leaf diseases in sweet corn
3	1	2	2	3	Powdery mildew and other disease management for cucurbits

Regionality

3= across entire region

2= parts of the region

1= only a limited region

Crops affected

3= most

2= many

1= few

Influence on Crop Yield/Quality

3= historically devastating crop loss in one or more crop

2= significant reduction in quality or yield for part of the season

1= some loss in yield and quality

Availability of Controls (both chemical and non-chemical)

3= few, none, or cost prohibitive

2= some

1= adequate

Pesticide use patterns

3= high

2= medium

1= low

Potential Invasive Pest Species:

- Brown marmorated stink bug
- Swede midge
- Soybean aphid
- Tuber flea beetle on potato
- Leek moth
- Sweet corn rust

Current and potential resistance problems:

- Colorado potato beetle and neonicotinoids
- Pyrethroids and corn earworm in the south
- Late blight
- Powdery mildew

General Regional Recommendations:

- Expand web sites, especially those providing pest identification and pest control information. Link this to commercial production guides. Over time, make this relevant to the entire Northeast region, using models such as the Mid-Atlantic Fruit Production Guide.
- Improve and enhance existing monitoring and modeling infrastructure for determining insect, disease, weed, and other pest conditions and forecasts. Include geospatial tools that result in real time regional maps of pest pressure and phenology made publicly available through the Internet and other media.
- Centralize vegetable IPM information through the Northeastern IPM Center database.
- Expand adoption of IPM through:
 1. Promoting cooperatives or other organizational structures to make it economically feasible for farmers to hire or create IPM services. We envision cooperative extension or other IPM professionals to be part of the board of these cooperatives and provide training and support.
 2. Encouraging farmer to farmer educational exchanges about IPM practices
 3. Serving needs of small or isolated operations and highly diversified farms with the goal of growers being able to accomplish IPM. We are looking for creative ways to accomplish this. One possible way is through development of a whole-farm model IPM system that can use record-keeping, scouting, and trapping techniques to gather field-based information and apply that to decision-making on a highly diversified vegetable farm.
 4. Encourage application of IPM methods to enhance the success of organic farming systems.
- Educate consumers and the public about the value and meaning of IPM
 - Include consumer information on the Vegetable Working Group website.
 - Other methods for accomplishing this goal are to be developed and may include press outreach as a strategy for reaching the public more effectively.
 - K-12 education programs on IPM are an effective way to have a long term impact on the public
 - IPM marketing materials and issues should be explored for the Northeast region as a whole.
- Identify and prioritize pest problems on a regional basis to enhance communication between states.
- Support professional training and communication across the region for Extension and crop consultants in vegetable IPM. Using existing meetings as models, develop region-wide training programs (e.g. crop school for certified crop consultants (mid-Atlantic), mid-Atlantic vegetable extension workers meeting, NY or New England in-service trainings) .
- Prioritize crop profiles and pest management strategic plans and encourage the completion of priority PMSP's.