Guidance for Working Groups on Setting Priorities for Research, Extension, and Education

The Northeastern IPM Center works with many partners to achieve its mission, which is ... to foster the development and adoption of IPM, a science-based approach to dealing with pests—one that provides economic, environmental, and human health benefits. We engage with stakeholders in agricultural, urban, and rural settings who work with us to identify and address regional priorities, whether for research, education, or outreach.

One of the roles of IPM Working Groups funded by the Northeastern IPM Center is to gather input from stakeholders on regional needs for IPM research, extension, and education for a specific crop or setting, and then to prioritize those needs. These stakeholder-identified priorities are cited by applicants to the Center's grant programs.

Thus, IPM Working Group priorities shape regional and even national IPM impacts. Lists of priorities are posted to the Center's website (see http://www.northeastipm.org/priorities). This document outlines the major steps in a successful priority-setting process.

1. Create a representative stakeholder group

To forge solid priorities, you need a broad group of knowledgeable IPM stakeholders contributing ideas. In the sidebar are examples of stakeholder groups; be sure you have included the right people in your working group from the start. Are any constituencies under—or overrepresented? The Center can help you to identify people who are interested in a particular area of IPM. If you can't get everyone to attend a meeting in person, set up a conference call line, video conference, or Skype connection (computer-to-computer).

Each working group member should represent a broader group of stakeholders and should speak for that group. If your representatives can't do this, you may want to collect input on regional priorities from more stakeholders than just your working group members

Examples of Stakeholder Groups

- Farmers, producers; grower organizations presumably represent many individual growers
- Facility managers (parks, golf courses, schools, buildings)
- IPM providers who serve many clientele (consultants, pest control operators, industry field representatives, and Extension agents)
- Researchers (university, governmental or private)
- Extension staff and other educators
- Faculty and staff of 1890s universities
- Homeowners, landlords, and renters
- Distributors, retailers, and consumers
- Interested individuals, including members of community, consumer, and environmental groups
- State and federal agency staff

2. Collect ideas in advance

Giving your group members guidance before they submit priorities will help to frame the priorities in a useful way.

a) How specific should priorities be?

Very specific priorities can be too limiting, yet generic priorities can be too sweeping to be useful. Strike a middle ground. It may also be helpful to include a brief justification to go with each priority to help determine whether priorities merit a high ranking now and whether priorities should be revised over time.

Here are four sample priorities and how they were improved to guide future project directors:

Draft priority	Improved priority	Additional justification for priority
Greenhouse IPM research and extension	Development of a greenhouse IPM scouting and advising program for the Northeast	Multiple state programs exist but do not coordinate services and have varying levels of IPM.
Small fruit diseases	Research on the causes of resurgent blueberry diseases, such as scorch	
Community IPM	Tick management for northeastern residences	Lyme disease in northeastern suburban areas strikes XXX,000 residents annually.
Biological control of mile-a-minute	Integrated approach to managing noxious weeds, including mile-aminute and giant hogweed	

b) Prompt members to think about priorities and how they will contribute their ideas.

If you plan to use a matrix, share it with the group before the meeting. If you want their "raw" ideas ahead of time, solicit these via phone, email, or website forms such as SurveyMonkey.com. Draft a summary before the in-person meeting. Again, you may want to have a larger set of stakeholders' contributions in this brainstorming phase than just your working group membership. At the actual working group meeting, *do not leave priority-setting to the end of the last day*. Doing so could lead to cursory lists that are too general, or long laundry lists of ideas. Tackle priorities for each topic (e.g., insects) as that topic arises.

If you have identified priorities in the past, dust them off and run them by your group again, perhaps using a different priority-setting method. If your group's priorities are more than three years old, we will archive them on the Center's website; they will not stay on the main Priorities page.

As you prioritize, keep in mind the goals of the Northeastern IPM Center: to increase scientific knowledge of IPM and foster its adoption through partnerships; in so doing, we aim to decrease

environmental, human health, and economic risks. Other factors to guide you in prioritizing might be new or resurging pests, regulatory changes, and challenges that organic growers face.

3. Sort and rank potential priorities

Identifying priorities usually entails generating, then sorting, a large list of needs or wishes. Determine what "most important" means (addressed first? capable of causing long-term damage?). Your list of priorities will be a subset of—and often much smaller than—the list of needs for the same setting. You can have a broader set of stakeholders help screen and rank priorities, or have the working group perform these steps.

If the scope of your working group is broad, use general categories of priorities, sort the potential priorities into those categories, then rank the priorities either within the categories or overall. For example, the general categories could be Research, Extension, Education, and Regulatory priorities. You may have general categories related to groups of crops, IPM techniques, or types of pest problems.

Aim for five to ten specific priorities in total (across all categories)

Here are five methods for prioritizing research, extension, and education needs.

a) Dot voting

Dot voting is a highly visual and simple method that uses majority opinion (thus, it may alienate a minority group, so be attentive to that). Give each member a certain number of "votes" using colored adhesive dots. The rule of thumb is that each person gets a number of dots equal to 1/4 the number of items. Sorting and combining similar ideas can be postponed until after voting, so time is not spent discussing low-priority items. Re-vote several times as ideas are sorted and clarified.

Alternatively, invest time initially to clarify and sort the ideas, then vote later.

Source: The NYS Department of Health, http://www.health.state.ny.us/statistics/chac/tech.htm

b) Weighted voting

Points are assigned to individual rankings. For example, if the members are to rank the top five choices, 5 votes would be given to the first choice, 4 votes to the second, 3 votes to the third, etc. All individual scores for each item are then tallied and items can be ranked by total group score. Weighted voting is more accurate than straight voting in measuring member preferences and can be tallied between meetings so that group time is not spent on this task. You can use weighted voting in a table or matrix with the priorities in the furthest left-hand column (other columns to the right of it would be being labeled "1st Choice," "2nd Choice," and "3rd Choice").

Drawn on information posted by The NYS Department of Health

c) Priority matrix

A good example of a matrix is shown here: http://www.phf.org/infrastructure/resources/priority-matrix.pdf

The list of needs is in the left-hand column and the criteria head the columns to the right of these needs. Assign a point value to the criteria, multiply, and tally the scores to the right. Instructions are included in the PDF.

d) Survey Monkey or another online form

Survey your group members ahead of time on-line to score draft priorities. (For an example, see this survey created to assess the state public health system of Illinois: http://www.surveymonkey.com/s.aspx?sm=9dQMJbQLowIojB%2bpL79Ws0bLjLdwtEGSrJVTZ8mqLdk%3d#q1.) Then discuss the results at your meeting.

e) Consensus

Reaching consensus can be time-consuming, but leads to a high degree of buy-in from of all group members. Consensus doesn't mean complete agreement; it means that everyone is willing to move forward with the general sense of the group.

Ground rules for building consensus are:

- Solicit input from all members without others evaluating or responding.
- Listen to all concerns (especially minority views).
- Ask clarifying questions; paraphrase concerns.
- List pros and cons of each position on a chart.
- If two positions conflict, look for a third which will reconcile differences.

Get expression of support from all members before making decisions final. An open hand with 5 fingers up shows complete consent; a few fingers up is "okay"; a closed fist shows that the person feels strongly enough to block the suggestion or decision from moving forward. Don't change your opinion to keep the peace.

Source: The NYS Department of Health, http://www.health.state.ny.us/statistics/chac/tech.htm

4. Finalize your list and submit it to the Center

Revisit the discussion on specificity of priorities in step 2a above and make sure your final priorities are reasonable. We appreciate getting a full list of the potential priorities that were discussed, but will post only those you determined were highest priority. Organize your final decisions in a Word or Excel document. If appropriate, outline the final priorities under general categories as described in step 3 above (e.g., Research, Extension, Education, Regulatory).

Contact the Northeastern IPM Center at NortheastIPM@Cornell.edu to submit priorities.

 $\label{thm:prepared} \textit{Prepared by the Northeastern IPM Center with contributions from the Southern Region IPM Center.}$