

Northeastern IPM Center Strategic Plan

(Revised 2024)

(Revised 2017)

MISSION

The Northeastern IPM Center fosters the development and adoption of integrated pest management, a science-based approach to dealing with pests that result in economic, environmental, and human health benefits. We engage stakeholders in agricultural, urban, and rural settings to work with us in identifying and addressing regional priorities in research, education, and outreach.

VISION

We are committed to improving quality of life: healthy people, functioning ecosystems, and sustainable communities through integrated pest management.

GOALS & OBJECTIVES

Goal 1. Engage stakeholders in teaching them how they can benefit from IPM research, education, and outreach.

- 1.A. Develop and pursue IPM priorities critical to supporting properly functioning social, economic, and environmental systems in the Northeastern region.
- 1.B. Evaluate the effectiveness of the Center in providing information that is accessed and used by stakeholders.
- 1.C. Communicate IPM in relation to pressing social, economic, and environmental challenges.

Goal 2. Secure funding to build/broaden IPM programs in the Northeastern region.

- 2.A. Promote Center grant-making opportunities through the six Signature Programs relevant to companies, industries, organizations, agencies, and individuals.
- 2.B. Develop relationships with organizations that share a common interest in IPM and Signature Programs.
- 2.C. Provide an active role for partner organizations in symposia, webinars, and ceremonies.

Goal 3. Train the next generation of IPM scholars, practitioners, and stakeholders.

- 3.A. Establish relationships with academia, agencies, and industry to develop internship program for students with certification from leading pest societies (WSSA, ESA, APS).

- 3.B. Provide challenging projects related to Center Signature Programs that interest and engage students in IPM.

Goal 4. Maintain vision of the NEIPMC to maximize impact.

- 4.A. Hire committed and motivated personnel with strengths that contribute to the mission of the Center.
- 4.B. Develop diverse advisory groups that engage and challenge NEIPMC leadership.
- 4.C. Require working groups to update the Center on current and upcoming issues related to IPM.
- 4.D. Collaborate with other Regional IPM Centers on key projects.

DETAILS ON MEASURABLE OBJECTIVES

Goal 1. Engage stakeholders in teaching them how they can benefit from IPM research, education, and outreach

- A. Develop and pursue IPM priorities critical to supporting properly functioning social, economic, and environmental systems in the Northeastern region.

Strategy	Who	When	Steps/Comments
1) Discuss issues of importance in NE, set priorities, plan how to address issues.	Director and staff	Ongoing	Hold workshops, webinars, conferences, form/fund working group.
2) Develop/manage Signature Programs that encompass Center work and address issues locally, regionally, and nationally.	Director and staff	Ongoing	IPM and Organic Systems, Climate Change and Pests, Next Generation Education, Rural to Urban IPM, Advanced Production Systems.

- B. Evaluate the effectiveness of the Center in providing information that is accessed and used by stakeholders.

Strategy	Who	When	Steps/Comments
1) Develop a standard set of evaluation criteria across all disciplines for all projects.	Evaluation Specialist	2017	Categorize projects into Signature Programs.

2) Create process for measuring change in perception and action for all projects (e.g., adoption of IPM).	Evaluation Specialist	2017	Develop method for measuring process.
3) Determine methods to gather economic and sociological inputs from Center grants.	Evaluation Specialist	2017	Categorize grants into Signature Programs; association analysis.
4) Perform social network analysis before and after formation of a working group (e.g., deeper connections, gaps in connections).	Evaluation Specialist	Ongoing	Data impacts on target audience; describe analysis on website.
5) Determine how others in IPM are measuring and reporting impacts.	Evaluation Specialist	Ongoing	Review literature and network w/ colleagues.
6) Identify audiences needing IPM expertise.	Evaluation Specialist	Ongoing	Survey participants at conferences relating to each Signature Program.
8) Serve as repository of information on IPM.	Web Manager & Communication Specialist	Ongoing	Maintain databases; track usage; stay up on emerging trends.

C. Communicate IPM in relation to pressing social, economical, and environmental challenges.

Strategy	Who	When	Steps/Comments
1) Identify and support a subset of the communications listserv who can promote Center messages.	Communication Specialist	Ongoing	Promote more broadly to build support.
2) Identify stakeholder needs, opportunities, strengths, networks, and willingness to be a resource.	Grants and Partnership Coordinator	Ongoing	Survey advisory members, PDs, and key partners.
3) Link media and journalists to relevant Signature Programs.	Communication Specialist	Ongoing	Promote <i>IPM Insights</i> and follow up on requests and news.

4) Find/connect with others working on IPM to build partnerships.	All Staff	Ongoing	Search news, respond to email, travel region, engage all.
5) Use print media, listservs, website to inform stakeholders.	Communication Specialist, Web Administrator	Ongoing	<i>IPM Insights</i> , initiatives, events, campaigns.
6) Use social media to share time sensitive information.	Administrative Assistant	Ongoing	Twitter, Facebook, others.

Goal 2. Secure funding to build/broaden IPM programs in the Northeastern region

- A. Promote Center Signature Programs in six areas relevant to companies, industries, organizations, agencies, and individuals.

Strategy	Who	When	Steps/Comments
1) Maintain funding from USDA-NIFA (\$1 million/yr.).	Director	Ongoing	Report impacts, support partners and ARDP and EIP PDs (listed in acronyms page).
2) Use Partnership Grants Program to increase populations developing and implementing IPM.	Director	Ongoing	Relate impacts in each Signature Program.
3) Apply for grants through other agencies (e.g., HUD, SCRI, DOE, NSF, CDC).	Director	Ongoing	Match RFAs to Signature Programs.

- B. Develop relationships with organizations that share a common interest in IPM and Signature Programs.

Strategy	Who	When	Steps/Comments
1) Make organizations, corporations, and businesses aware of the Center.	Director	Ongoing	Distribute brochure, meet w/ individuals.
2) Exhibit at conferences, trade shows related to each Signature Program	Evaluation Specialist	Ongoing	Engage participants through 1–2 question survey.

- C. Provide an active role for partner organizations in symposia, webinars, and ceremonies.

Strategy	Who	When	Steps/Comments
1) Provide incentive for participating in Center sponsored	Director	Ongoing	Booth, advertising events.
2) Invitation to contribute to Center sponsored events.	Director	Ongoing	Plenary talk, panel member, poster

Goal 3. Train the next generation of IPM scholars, practitioners, and stakeholders.

- A. Establish relationships with academia, agencies, and industry to develop educational programs for students, professionals, and practitioners.

Strategy	Who	When	Steps/Comments
1) Establish internship program for undergraduate and graduate students.	Director	Ongoing	Identify students for special projects.
2) Identify external funding to develop training programs.	Director	Ongoing	Respond to USDA, NSF, or other groups with RFAs.
3) Develop online training modules on IPM principles.	Partnership Grant PDs	Ongoing	Encourage applications to Partnership Grants Program.

- B. Provide challenging projects related to NEIPMC Signature Programs that interest and engage students in IPM.

Strategy	Who	When	Steps/Comments
1) Create real-world projects	Director	Ongoing	Read, engage, meet people
2) Allow students to identify potential issues for projects	Director	Ongoing	AFRI proposal for undergraduate training program

Goal 4. Maintain vision of the Center to maximize impact

- A. Hire committed and motivated personnel with strengths that contribute to the mission of the Center.

Strategy	Who	When	Steps/Comments
1) Conduct national searches for key positions.	Director, Staff	Ongoing	Follow Cornell University protocol
2) Write concise, clear, and exciting position descriptions for all vacancies.	Director, Staff	Ongoing	Speak with Cornell Human Resources

- B. Develop diverse advisory groups that engage and challenge Center leadership.

Strategy	Who	When	Steps/Comments
1) Carefully select leaders in their fields.	Director/ Steering Committee	Ongoing	Rotate membership
2) Recruit non-traditional members to diversify.	Director/ Steering Committee	Ongoing	Underrepresented groups
3) Call on AC members for ad hoc task forces.	Director	Irregular	Continuous communication

- C. Require working groups to update the Center on current and upcoming issues related to IPM.

Strategy	Who	When	Steps/Comments
1) Participate in meetings.	Director/Evaluation Specialist	Ongoing	Engage groups
2) Require a logic model and updates.	Director/Evaluation Specialist	Ongoing	Develop awareness of new topics.

- D. Collaborate with other Regional IPM Centers on key projects.

Strategy	Who	When	Steps/Comments
1) Participate in all meetings and calls.	Director	Ongoing	Present new ideas; provide updates

2) Plan joint conference or symposium with other Center(s).	Director	As needed	Address needs; share priorities.
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SIGNATURE PROGRAMS (REVISED 2023)

The efforts of the Center are organized under six Signature Programs and four cross-cutting issues where our leadership and advisory bodies see the greatest need. At present, the areas of focus for the programs are (not in order of priority) 1) Community IPM, 2) IPM and Organic Systems, 3) Climate Change and Pests, 4) Pollinators, 5) Next Generation Education, and 6) Advanced Production Systems. The four cross-cutting issues are 1) Diversity in IPM, 2) Emerging Invasive Species, 3) Pesticide Resistance, and 4) Economics.

Community IPM: We foster the adoption of IPM in structures and surrounding landscapes including housing, schools, food service facilities, and commercial and public properties. A nationwide program led by the Center is “Promoting IPM in Affordable Housing,” which teaches managers, maintenance staff, and residents how to use IPM. Efforts are centered on eliminating obstacles to using IPM in affordable housing and refining an implementation process for housing providers.

IPM and Organic Systems: IPM and organic systems share many of the same goals and challenges, and we support collaboration between these two communities to build a more sustainable agricultural system.

Climate Change and Pests: Climate change (CC) is resulting in increased extreme weather events and a gradual rise in average annual temperatures. While research is giving us a picture of what CC will mean for the distribution and occurrences of pests, the research and development of IPM tools and practices tailored to address emerging needs must be supported. We provide funding for advancing knowledge and IPM solutions specific to the challenges of CC.

Pollinators: Decline of wild and managed pollinators is one of the most critical issues facing our food systems. Habitat destruction, CC, and pesticide use are some of the contributing factors. We will continue to give this issue priority and encourage efforts to develop IPM practices protective of and with lower risk to wild and managed pollinators.

Next Generation Education: It is critical to maintaining the IPM knowledge base that there are scientists, educators, and practitioners who understand IPM basics. Our Center can advise students on internship projects that provide real-world experience and allow for partnerships to be built with growers, educators, researchers, and industries who will want to work with these interns and possibly employ them post-graduation. We recognize students in IPM in our annual Outstanding Achievements in IPM award, as well as

practitioners and academics. We will continue to support young people striving to be successful in the field of IPM, both as practitioners and in academia.

Advanced Technology for IPM: This signature program continues from an earlier one called “Advanced Production Systems” but is more specific to technologies that can assist in the implementation of IPM. One issue identified by NEERA-2104 is that of farm labor shortages in the NE. One way of assisting with this problem while improving adoption of IPM is through technologies including weather tools such as NEWA (Network for Environment and Weather Applications), remote sensing technologies with demonstrations of efficacy in NE settings and scales, agricultural applications of AI, and learning models. We will encourage demonstration and adaptation of technologies for use in NE agricultural systems.

Cross-Cutting Issues

These issues cut across all aspects of IPM and food security and are integral to each signature program. We describe cross-cutting issues separately here to provide the emphasis and visibility necessary to make progress.

Diversity in IPM: The Center is committed to engaging all stakeholders in the adoption of IPM. We understand that a conventional, academic approach to distributing funding and to extending knowledge does not work for all stakeholders, there is much to be learned from understanding traditional practices and listening to traditional practitioners, and there are barriers to BIPOC, 2SLGBTQIA+, and other communities achieving professional success in the field of IPM and related sciences.

Emerging Invasive Species (IS): Many pests of concern are IS that have become established, but emerging or newly identified IS are of great concern because major damage may occur before management can be developed or there may be a window for developing management practices before there is major damage. We support new collaborations, research, and education to address these pests.

Pesticide Resistance: Resistance to pesticides is increasing and is impacting the range of options available to pest managers in all situations, including housing and school buildings. Efforts to identify alternative pesticides and alternative or new IPM practices, such as biological pesticides or cultural methods, are critical to long-term effective pest management. Steps in an IPM practice, such as monitoring for presence and using degree-day models to predict emergence, can help tune the use of pesticides to the need in a specific setting.

Economics: Two surveys conducted by the Center and priority-setting discussions by NEERA-2104 all indicate that economics, specifically the cost/benefit ratio and the need for good cost analyses, is central to IPM adoption.