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# MUNICIPAL RAT IPM RESEARCH PRIORITIES

The Municipal Rodent IPM Working Group is a coalition of academics, pest management industry professionals, and municipal leaders with the common goal of advancing the science and implementation of large-scale rat management. During two virtual meetings, the working group identified several research needs that were distilled to ten priorities. Working group members then ranked priorities to create the following list.

## PRIORITIES

1. Establish long-term studies in multiple municipalities to evaluate the impact of sustainable management strategies on chronically recurring rat populations.
2. Identify reliable, feasible methods to measure rat abundance in urban areas.
3. Identify new methods to reliably track rat movement/dispersal in urban areas.
4. Develop and evaluate novel and contemporary refuse containerization technology and methodology for rodent-proof trash cans and/or trash removal frequency on rodent populations.
5. Determine rodent population thresholds for implementing a rodenticide program.
6. Determine the replenishment dynamics of rodents after management (where do they come from and at what rate? Sewers and inaccessible private property were identified as important sources).
7. Optimize surveillance techniques for pathogens/parasites, including what sample size is needed for ongoing detection and monitoring.
8. Determine persistence/environmental fate of rodenticides used in burrow treatments.
9. Determine if weather patterns (e.g., ground moisture) affect carbon dioxide burrow treatments.

## ADDITIONAL PRIORITIES

The following priorities were submitted as write-ins by working group members.

1. Establish a framework for the development, implementation, and evaluation of municipal rodent policy and programming.
2. Find methods to engage the public and change behaviors that contribute to rodent problems.
3. Evaluate cost effectiveness of municipal rodent control programs.

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The Municipal Rodent IPM Working Group was funded by the Northeastern IPM Center through Grant #2018-70006-28882, Accession Number: 1017389 from the USDA National Institute of Food and Agriculture, Crop Protection and Pest Management, Regional Coordination Program.

