SOUTH CAROLINA
PEST CONTROL
ASSOCIATION

Best Practices for Rodent Control

Compiled for the South Carolina Pest Control Association
By Dr. Eric P. Benson, Clemson University
October 2020

Overview: Questions have arisen over the use of second-generation anticoagulant (SGA's) rodenticides on Kiawah Island. While these products are important in rodent control, they may not be the best first "tool" in certain environments. In those sensitive areas like Kiawah Island, it will be best to diversify the methods or products used for rodent control. Multiple methods can provide the best results, delay resistance and reduce non-target exposure. Management plans are critical! The better you manage, the less rodenticides you'll need. This document is an overview of practices that will help you develop effective management plans.

Best Management Practices: Include monitoring, non-rodenticide strategies and rodenticide strategies. In addition, new technologies are being developed and resources are available. Application of rodent control strategies should be designed by each company for best management practices that responsibly meets the needs of their specific clients and community.

Monitoring: Monitoring provides the information needed for best management practices. Monitoring includes:

- *Identification* of the rodent species infesting an account.
- *Inspection* of the areas conducive for rodent infestations.
- *Prediction* of any potential rodent problems and correction before they become issues.
- *Decision* on the best non-rodenticide and rodenticide strategies needed (e.g., targeted alterations as needed to the structure and surrounding landscape and placement of selected rodenticides.
- *Evaluation* of the rodent control program over time with alterations in strategies as needed.

Non-rodenticide Strategies: Use practices to keep rodents from finding food, water and shelter where people live. This strategy can significantly reduce the use of rodenticides by limiting access to structures. These strategies include:

- *Sanitation* by minimizing food and trash available for rodents.
- *Habitat alteration* by minimizing access to water and shelter for rodents.
- *Exclusion* by appropriate screening, caulking and sealing of access points used by rodents.
- *Trapping* by using the right traps in the right locations for the specific rodent pests while securing traps in locations away from people, pets and non-target animals.

Rodenticide Strategies: In most cases, this involves the use of baits, though other options are available. When baiting

- *Choose* the right bait and formulation for the rodent species causing the infestation.
- *Secure* baits in bait stations.
- *Place* stations and traps where rodents travel.
- *Use* enough stations and product to do the job but don't over treat.
- *Remove* rodenticide baits once the problem has been addressed.
- ***Follow*** **all label directions!**

New Technologies: Strategies for rodent control are constantly evolving. Professionals should keep up to date on new products and processes that may be an effective part of best management practices for their company. Some new technologies include:

- *Remote Monitoring Systems* are designed to remotely alert pest management professionals of rodent activity in bait boxes and multi-catch traps. Various systems communicate rodent activity/capture via Wi-Fi connections to computers or hand-held devices. These systems can be expensive, but they can be cost-effective in directing PMPs to locations needing action.
- *Fertility Control* works by reducing the reproductive capacity of rodent populations. This can enhance a rodent IPM program by minimizing the chances of populations rebounding after a successful treatment. Fertility control products are designed to reduce risk to non-target animals due to low concentration of the active ingredients and short half-life.

Resources: Detailed information on best management practices for rodent control are available. This includes:

Handbooks

- Corrigan, R. M. 2001. Rodent Control: A Practical Guide for Pest Management Professionals by Robert M. Corrigan. GIE Media. ISBN: 1-883751-16-0.
- Corrigan, R. M. 2011. Rats and mice. In A. Mallis, D. Moreland, and S. A. Hedges, eds. *The Mallis Handbook of Pest Control, 10th ed.* Cleveland: GIE Publications pp. 11–119.
- Marsh, R. E. 1994. Roof Rats. In S. E. Hygnstrom, R. M. Timm, and G. E. Larson, eds. *Prevention and Control of Wildlife Damage, Vol. 1.* Lincoln: Univ. Neb. Coop. Ext. pp. B.125–132.

Fact Sheets

- University of California. Statewide Integrated Pest Management Program. Rats. 2011. **http://ipm.ucanr.edu/PMG/PESTNOTES/pn74106.html**
- Texas A&M AgriLife Extension. IPM Action Plan for Rodents. **https://schoolipm.tamu.edu/forms/pest-management-plans/ipm-action-plan-for-rodents/**

Websites

- Center for Disease Control and Prevention. Rodents. **https://www.cdc.gov/rodents/index.html**
- Environmental Protection Agency. Controlling Rodents and Regulating Rodenticides**.** **https://www.epa.gov/rodenticides**
- National Pest Management Association. Rodents**.** **https://npmapestworld.org/sitesearch/**