

Frequently Asked Questions

1. What is Evolve?
 - a. Evolve is a soft bait contraceptive for rats developed by SenesTech. Its active ingredient, cottonseed oil, inhibits fertility to reduce their population.
2. How does Evolve work?
 - a. Cottonseed Oil, the active ingredient extracted from cotton plants (genus *Gossypium*), contains a compound called gossypol which affects fertility in rats. The compound interferes with the reproductive mechanisms in both male (sperm count & motility) and female rats (longer estrous cycles & reduced follicles), thereby controlling their population.
3. Where can Evolve be deployed?
 - a. Evolve can be used anywhere rats are found! Simply place 2 to 12 pieces per location and update based upon rat activity levels.
 - b. We recommend that Evolve be secured in tamper-resistant bait stations in areas where there's potential exposure to children, pets, wildlife, or other non-target species.
 - c. Refer to label and SDS for further information.
4. Does Evolve work on other species?
 - a. Evolve is only for rats currently. SenesTech is expanding to other species soon, so be on the lookout for new products!
5. Does Evolve pose an exposure risk to non-target animals?
 - a. The low gossypol levels in Evolve are designed for the body mass of rats so larger mammals would need to repeatedly ingest a substantial amount over several weeks to see any effects.
 - b. Birds appear to be more tolerant of gossypol as they have different intestinal tracks and modes of digestion.
6. After consumed by rats, how long does Evolve stay in their system?
 - a. In rats, gossypol has a corresponding half-life of approximately 3 days after consumption and is mostly excreted via feces with a small amount through urine.
7. How much Evolve does a rat need to eat to take effect?
 - a. The target is for rats to eat one piece of Evolve bait per day. Evolve has a cumulative effect, so the more a rat consumes and the longer they consume the greater the results on their fertility.
8. When can I expect results with Evolve?
 - a. Evolve's effects on the population begin after 1-2 breeding cycles (4-6 weeks), resulting in reduced pregnancies and less pups born.
 - b. Upon cessation of treatment, rats will regain their fertility within approximately 6 weeks.
9. Why use Evolve?
 - a. Evolve is a non-lethal way to control rat population levels. It is highly palatable to rats, easy to deploy, and offers diverse placement in many different environments.
10. What is the shelf life of Evolve?
 - a. Shelf life is a minimum of 6 months.
11. Is Evolve's active ingredient carcinogenic?
 - a. No, cottonseed oil is not reported to be carcinogenic based on ACGIH, IARC, NTP, or CA Prop 65 classification.

- b. Additionally, gossypol studies in rats did not show any carcinogenic effects or tumor formation.
12. How does Evolve affect male and female rats?
 - a. In male rats, gossypol decreases sperm count, motility, and viability. In females, it affects follicles, disrupts estrous cycles, and reduces pregnancy rates. The effects are both dose and time-dependent.
 13. How should Evolve be stored?
 - a. Evolve should be stored away from water. Store only in original, tightly secured containers in a room temperature environment, inaccessible to unauthorized users, children, pets, livestock, and other non-target animals.
 14. What precautions should be taken when handling Evolve?
 - a. Wear protective gloves and clothes. Wash hands thoroughly after handling. Contact with eyes may cause irritation. Safety glasses are recommended. See the product label and SDS for further instructions.
 15. How should Evolve be disposed of?
 - a. Place product packaging, unused bait, or unconsumed bait in trash.
 16. How does the efficacy of Evolve compare to other rat control measures?
 - a. Evolve offers a humane alternative to lethal methods, focusing on long-term population control rather than immediate extermination.
 17. What are the recommended bait stations for Evolve?
 - a. Evolve is compatible with most standard bait stations available in the market. Tamper-resistant bait stations are recommended when deployed within reach of children, pets, domestic animals, and non-target wildlife.
 18. How will extreme temperatures affect Evolve?
 - a. The product may become firmer at lower temperatures or softer at higher temperatures but is still highly palatable, edible, and can be deployed as normal.
 19. Who is the primary audience for Evolve?
 - a. Everyone! Evolve is designed for a wide range of users, including farmers, homeowners, and professional pest control companies.
 20. How does Evolve affect pets if they consume a rat that has ingested the bait?
 - a. Gossypol may affect pets if ingested repeatedly or at large quantities. However, Evolve has low gossypol levels as it is designed to reduce fertility in rats and is reversible upon cessation of treatment. As a precaution, always secure bait in tamper proof stations when deploying near non-targets to prevent access. See label for details.
 21. Can the use of Evolve lead to cost savings for users in the long run?
 - a. Yes, by reducing rat populations humanely and sustainably, users can experience reduced damages and losses leading to long-term cost savings.
 22. How does the use of Evolve impact the environment?
 - a. Evolve is designed under the minimum risk pesticide guidelines of U.S. EPA which poses little to no risk to human health or the environment.
 23. Will there be future iterations of Evolve with different active ingredients or formulations?
 - a. Our R&D team is continuously working on improving our products. Future iterations may incorporate different active ingredients or enhanced formulations based on ongoing research and feedback.