

Frequently Asked Questions

Q. 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.

Q. 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 and female rats thereby controlling their population.

Q. Can Evolve be used on all rat species?

A. Evolve is for use on wild, invasive rats and excludes species protected under federal or state laws.

Q. 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.

Q. How much Evolve does a rat need to eat to take effect?

A. The target is for rats to eat as much as possible repeatedly for the quickest results. Evolve has a cumulative effect, so the more a rat consumes and the longer they consume, the greater the results on their fertility. Lower amounts of Evolve for shorter periods of time will still have effects on individual rats but may produce a slower population reduction.

Q. 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.

Q. 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.

Q. 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.

Q. Does Evolve work on other animals?

A. Evolve is only for rats currently. SenesTech is expanding to other species soon, so be on the lookout for new products!

Q. 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.

Q. 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.

Q. 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.

Q. 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.

Frequently Asked Questions (cont'd)

Q. 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.

Q. 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.

Q. What is the shelf life of Evolve?

A. Shelf life is a minimum of 6 months.

Q. 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.

Q. 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.

Q. How should Evolve be disposed of?

A. Place product packaging, unused bait, or unconsumed bait in trash.

Q. 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.

Q. Are there any regulations or restrictions on the sale of Evolve?

A. Evolve is exempt from U.S. EPA federal registration under FIFRA 25(b) and is in-process of being registered in all 50 states, DC, and major territories. Always check local regulations regarding the sale and usage of pest control products. Some regions may have specific guidelines or restrictions.

Q. 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.

Q. Where can Evolve be purchased?

A. Evolve is available at major retailers, specialized pest control stores, and through online platforms including senestech.com.

Q. Can I purchase or ship Evolve outside of the United States?

A. Evolve is available for purchase in the United States and may be available in select international markets in the near future.

Q. 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.

Q. 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.

Q. 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.