New Hampshire Turf and Ornamental Pesticide Applicator Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. How long does it take for White Pine Weevil adults to emerge after pupation?

A. 5-10 days

B. 10-15 days

C. 15-20 days

D. 20-25 days

2. What can influence the effectiveness of pesticide application?

A. Timing and method of application

B. Brand popularity

C. Color of the product

D. Price fluctuations

3. What term describes areas where water collects underground?

A. Aquifers

B. Zones of saturation

C. Groundwater basins

D. Wetlands

4. Between which months do Gypsy Moth larvae typically feed?

A. April and June

B. May and July

C. June and August

D. July and September

5. How does Phytophthora spread?

A. Through spores carried by insects

B. By direct contact with infected plants

C. Through zoospore mycelium

D. Via wind currents

6. What is the number of generations the European Sawfly produces each year?

A. 1

B. 2

C. 3

D. 4

7. How many generations does the Introduced Sawfly have each year?

A. 1

B. 2 and a partial 3rd

C. 3

D. 4

8. How frequently must a pesticide applicator re-examine for their license?

A. Every 2 years or 8 credits

B. Every 5 years or 12 credits

C. Every year or 3 credits

D. Every 4 years or 10 credits

9. What is the appropriate action if a pesticide spill occurs?

A. Leave the spill area immediately

B. Call for outside assistance immediately

C. Contain the spill immediately and follow cleanup procedures as per the SDS

D. Spread soil over the spill

10. What role do pheromone traps play in pest management?

A. They repel unwanted species

B. They help attract and monitor target pests

C. They enhance plant growth

D. They are used for soil testing

Answers

1. B
2. A
3. B
4. B
5. C
6. A
7. B
8. B
9. C
10. B

Explanations

1. How long does it take for White Pine Weevil adults to emerge after pupation?

A. 5-10 days

B. 10-15 days

C. 15-20 days

D. 20-25 days

White Pine Weevil adults typically emerge from the pupal state within a timeframe of 10 to 15 days. This timeframe is crucial for understanding their life cycle and the timing of potential control measures in pest management. Knowledge of insect life cycles, including the duration of pupation and early adult emergence, allows applicators to schedule interventions effectively, particularly to protect susceptible plant materials. Emergence beyond this range may indicate unusual environmental conditions or disruptions in the life cycle. Therefore, recognizing this 10 to 15-day window helps reinforce the overall understanding of White Pine Weevil behavior and the timing of potential infestations. Having an accurate grasp of these timelines is essential for effective pest management strategies, ensuring that interventions are applied during critical periods to mitigate damage.

2. What can influence the effectiveness of pesticide application?

A. Timing and method of application

B. Brand popularity

C. Color of the product

D. Price fluctuations

The timing and method of pesticide application are critical factors that influence the effectiveness of pesticide treatments. Pesticides are designed to target specific pests or diseases within a certain time frame, often related to the life cycle of those pests. For instance, applying a pesticide when pests are in their most vulnerable stage significantly increases the likelihood of successful control. Additionally, the method of application—whether via spraying, granules, or another approach—can affect how well the pesticide adheres to the target area and penetrates foliage or soil, impacting the overall success of the treatment. Other factors, such as environmental conditions (e.g., temperature, humidity, and wind speed), also play a role in determining effectiveness, but timing and method are fundamental to ensuring that the pesticide reaches the intended target and performs optimally. This can include considerations like choosing the right nozzles, spray pressure, or application rate for the specific conditions at hand. In contrast, brand popularity, the color of the product, and price fluctuations do not directly impact the performance of the pesticide. While brand reputation may indicate quality, it doesn't guarantee effectiveness. Product color is typically irrelevant to its functionality, and pricing may be influenced by market conditions but doesn't affect how a pesticide works. Therefore, understanding

3. What term describes areas where water collects underground?

A. Aquifers

B. Zones of saturation

C. Groundwater basins

D. Wetlands

The term that best describes areas where water collects underground is "aquifers." Aquifers are geological formations that can hold and transmit water, serving as a vital source of groundwater. They are typically composed of porous materials such as sand, gravel, or limestone, which allow water to move through the spaces between the particles. While "zones of saturation" refers to areas where all the spaces in soil or rock are filled with water and is related to aquifers, it is not the term that specifically designates the underground reservoirs themselves. "Groundwater basins" are broader geographic areas that may encompass multiple aquifers but do not specifically refer to the water-holding characteristics. "Wetlands," on the other hand, refer to areas where water is present at or near the surface for extended periods, but they are not underground reservoirs like aquifers. Thus, when considering the true nature of underground water collection, aquifers provide a clearer and more precise term, making it the correct answer in this context.

4. Between which months do Gypsy Moth larvae typically feed?

A. April and June

B. May and July

C. June and August

D. July and September

Gypsy Moth larvae are known to start feeding in the spring as temperatures warm and new leaves begin to emerge. This feeding period typically begins in late April and continues through June, which aligns with the timing of their growth stages. The peak feeding activity often occurs in May. During this time, the larvae consume a variety of tree and shrub foliage, primarily oak trees, which can lead to significant defoliation if populations are high. Choosing the period from May to July includes the crucial months when the larvae are actively feeding, encompassing the latter part of May through June when they are at their largest and most voracious. By July, the larvae are generally transitioning to the pupal stage and are less active feeders. Understanding these seasonal patterns is essential for effective pest management, as timing treatments to coincide with the feeding habits of Gypsy Moth larvae can help in minimizing their impact on trees and shrubs.

5. How does Phytophthora spread?

A. Through spores carried by insects

B. By direct contact with infected plants

C. Through zoospore mycelium

D. Via wind currents

Phytophthora, a plant pathogen known for causing significant diseases, particularly in crops and ornamental plants, primarily spreads through swimming spores called zoospores. These zoospores are capable of moving in water and can infect plants when they come into contact with them. The mycelium can also persist in the soil or decaying plant material, allowing it to infect new plants when conditions are favorable. Understanding this method of spread is crucial for managing Phytophthora diseases, as it highlights the importance of water management and sanitation in preventing outbreaks. While the other options present possible methods of transmission, they do not accurately describe the primary spread mechanism of Phytophthora. For instance, spores carried by insects or wind would involve different types of pathogens, and direct contact with infected plants while relevant for disease transmission does not encompass the pathogen's primary locomotion method. Thus, recognizing the role of zoospores in water facilitates the effective management of Phytophthora in agricultural and ornamental contexts.

6. What is the number of generations the European Sawfly produces each year?

A. 1

B. 2

C. 3

D. 4

The European Sawfly typically produces one generation each year. This single generation cycle aligns with the life cycle of many sawfly species, which involves wintering as a pupa and then emerging in the spring to feed on host plants. The larvae tend to become active during a specific time when conditions such as temperature and food availability are ideal, and they complete their development in a single season. As a result, understanding this singular generation pattern is crucial for effective pest management and control strategies, particularly for those involved in turf and ornamental horticulture.

7. How many generations does the Introduced Sawfly have each year?

A. 1

B. 2 and a partial 3rd

C. 3

D. 4

The Introduced Sawfly typically has 2 complete generations within a year, along with a partial third generation. This life cycle allows the insect to adapt to varying environmental conditions and food availability throughout the growing season. During the first two generations, the sawfly goes through the egg, larval, pupal, and adult stages, with each generation taking advantage of the life cycle of the host plants. The partial third generation occurs later in the season, primarily because the conditions may still support the larvae development into adults, although not all of them reach maturity. This ability to have multiple generations per year enables the Introduced Sawfly to build its population quickly and can lead to increased instances of damage to ornamental plants and turf if left uncontrolled. Understanding the life cycle of this pest is crucial for effective pest management strategies, as it guides timing for treatments and monitoring efforts.

8. How frequently must a pesticide applicator re-examine for their license?

A. Every 2 years or 8 credits

B. Every 5 years or 12 credits

C. Every year or 3 credits

D. Every 4 years or 10 credits

Pesticide applicators are required to keep their knowledge and skills up to date due to the evolving nature of pest management practices, regulations, and the introduction of new products. In New Hampshire, a licensed pesticide applicator must re-examine for their license every five years. Alternatively, they can fulfill the continuing education requirement by earning 12 credits within that same five-year interval. This approach ensures that applicators are knowledgeable about current best practices, safety measures, and regulatory changes, which ultimately contributes to effective and safe pesticide use. The requirement emphasizes the importance of continuous education in maintaining high standards in the field, ensuring that applicators stay informed about advancements in technology, safety guidelines, and environmental considerations. This structure is intentional to promote professional development and responsible practices among pesticide applicators.

9. What is the appropriate action if a pesticide spill occurs?

A. Leave the spill area immediately

B. Call for outside assistance immediately

C. Contain the spill immediately and follow cleanup procedures as per the SDS

D. Spread soil over the spill

The appropriate action during a pesticide spill is to contain the spill immediately and follow cleanup procedures as specified in the Safety Data Sheet (SDS). This is crucial for several reasons. First, containing the spill helps prevent the pesticide from spreading further, which could pose additional risks to people, wildlife, and the environment. Following the cleanup procedures outlined in the SDS ensures that the specific requirements for handling that particular pesticide are met, which promotes safety and effectiveness in the response. Each pesticide has unique properties, and the SDS provides critical information, including hazards, safe handling practices, and specific cleanup methods tailored to that substance. Implementing the instructions in the SDS not only ensures compliance with legal and safety standards but also protects human health and the environment. While calling for outside assistance might be appropriate in certain high-risk situations, it's generally important to take immediate action to contain the spill first. Leaving the area or spreading soil over the spill may not effectively address the immediate dangers and could exacerbate the situation. Therefore, containing the spill and adhering to the prescribed cleanup measures is the best course of action.

10. What role do pheromone traps play in pest management?

A. They repel unwanted species

B. They help attract and monitor target pests

C. They enhance plant growth

D. They are used for soil testing

Pheromone traps are a valuable tool in pest management primarily because they attract and monitor target pests. These traps use synthetic versions of natural pheromones, which are chemical signals released by pests to communicate, particularly for mating. By utilizing these pheromones, the traps lure specific pests into the device, allowing for effective monitoring of pest populations. Furthermore, the data gathered from these traps can inform management strategies, such as the timing of interventions like pesticide applications. This focused approach not only helps in tracking pest migration and population density but also aids in understanding the life cycles of pests, leading to more informed pest management decisions. Overall, the use of pheromone traps aligns with integrated pest management practices, which emphasize monitoring, prevention, and the least disruptive control methods.