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## INTEGRATED PEST MANAGEMENT RODENT CONTROL PROGRAM





# WHILE YOU RUN YOUR OPERATION, WE HELP PROTECT YOUR VALUABLE ASSETS.

At Solvet, we provide quality rodent management solutions paired with the most experienced team in the industry. Our on-farm experience gives us an edge in understanding your problems, needs and solutions. Agriculture receives our complete and undivided attention, so you can be confident in our industry-specific recommendations. Our rodenticides undergo a rigorous quality control process, ensuring they meet the highest standards.

We approach customer service with the aim to understand. We will stop at nothing to find the right solution and work diligently until the problem is solved, like you should do with rodent control on your farm. We call this approach *Innovation by Request*.



# RODENT CONTROL MATTERS

Rodents represent a serious risk to many aspects of livestock production, from biosecurity to profitability. Rodents can contaminate feed and water, cause serious illness or death from rodent-borne diseases and cause expensive structural damage through gnawing.

Solvat's Integrated Pest Management (IPM) rodent program can help you to develop your own comprehensive plan with the appropriate combination of tools, baiting methods and environment controls.

There is no such thing as a "one size fits all" recommendation. While the elements presented here appear in most programs, an effective program doesn't need to proceed in a prescribed order. Consistency and vigilance are also an important part of rodent management. After starting with the logical first step of identifying the rodents and the extent of an infestation, the remaining actions will depend on the individual situation, and our Integrated Pest Management process will provide you with a solid, and proven, work template.

## INTEGRATED PEST MANAGEMENT

**Integrated Pest Management (IPM)** is a systematic decision-making process that aims to prevent pests from becoming problems, and to determine what actions to take if pest problems occur.

As part of an integrated pest management program, all available information and treatment methods are taken into consideration in order to manage pest populations efficiently, economically, and environmentally. Based on this analysis, best strategies can be developed for reducing pest numbers to levels that minimize damage to the site and protect the environment at the same time.

**Effective IPM programs provide important advantages:**

- **Protect** the environment and human health
- **Minimize** harm to beneficial organisms that help control pests
- **Provide** pest control options when pesticides cannot be used
- **Reduce** the excessive use of pesticide to avoid resistance.

## THE SIX ELEMENTS OF INTEGRATED PEST MANAGEMENT ARE:

### 1 PREVENTION

**Preventing** organisms from becoming pest problems by planning and managing ecosystems

### 2 IDENTIFICATION

**Identifying** pest and beneficial species

### 3 MONITORING

**Monitoring** pest and beneficial species populations, pest damage and environmental conditions

### 4 THRESHOLDS

Using injury and action **thresholds** to determine when to treat pests

### 5 TREATMENT

Using **treatments** that usually include a combination of methods, such as cultural, biological, physical, mechanical, behavioural or chemical methods, to achieve acceptable control with minimal impact on the environment

### 6 EVALUATION

**Evaluating** the effects and efficacy of pest management strategies





# 1. MANAGEMENT OPTIONS FOR PREVENTION

## HERE ARE A FEW GUIDELINES TO OPTIMIZE RODENT MANAGEMENT PROCEDURES

- 1. Cultural** — Mice do not like to be seen.
  - a. Clean up debris—hiding and nesting sites.
  - b. Clean up feed—food is an attraction.
- 2. Physical** — Make it hard for them to get into the barn.
  - a. 2-4 foot barrier around the barn with no vegetation, preferably graveled.
  - b. Fill possible access holes—low and high, they are great climbers!
  - c. Secure government-approved stations to the barn on the barrier with access holes toward the walls.
- 3. Inside animal areas** — No baits can be used in areas with live animals to prevent accidental consumption.
  - a. Use mechanical traps and glue boards. Make sure to remove caught rodents often so not to deter other rodents.
  - b. Attic baiting. This is normally closed off to all animal activity and is ideal rodent location.
- 4. Extra tips** — for improved results.
  - a. Personal protective equipment (PPE) — protect yourself from possible rodent diseases.
  - b. Wear fresh gloves when applying rodenticides — the smell on your hands can be transferred to the bait and deter the rodents.
  - c. In high active areas, it is more efficient to add more stations in an area, than to overload bait in boxes.
  - d. All bait needs to be secured in a station to restrict non target consumption. All bait also needs to be retrievable and replaced on a regular basis. Otherwise, the bait poison will deteriorate and if left, become food for the next generation.
  - e. When repairing a hole, spray bleach on the path the mice were taking and in the hole to negate the odour left by previous mice. Stuff the hole with coarse steel wool and seal with permanent material.

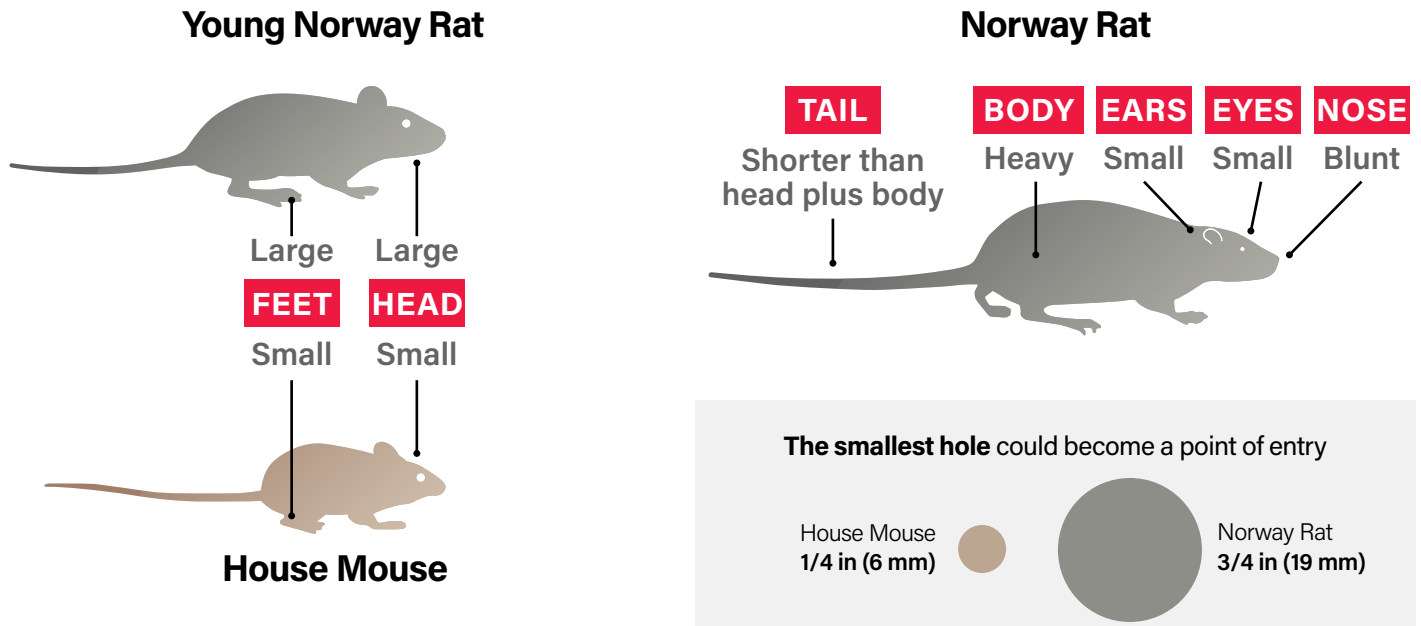


## 2. KNOW YOUR TARGET

### PEST IDENTIFICATION/BEHAVIOUR/REPRODUCTION

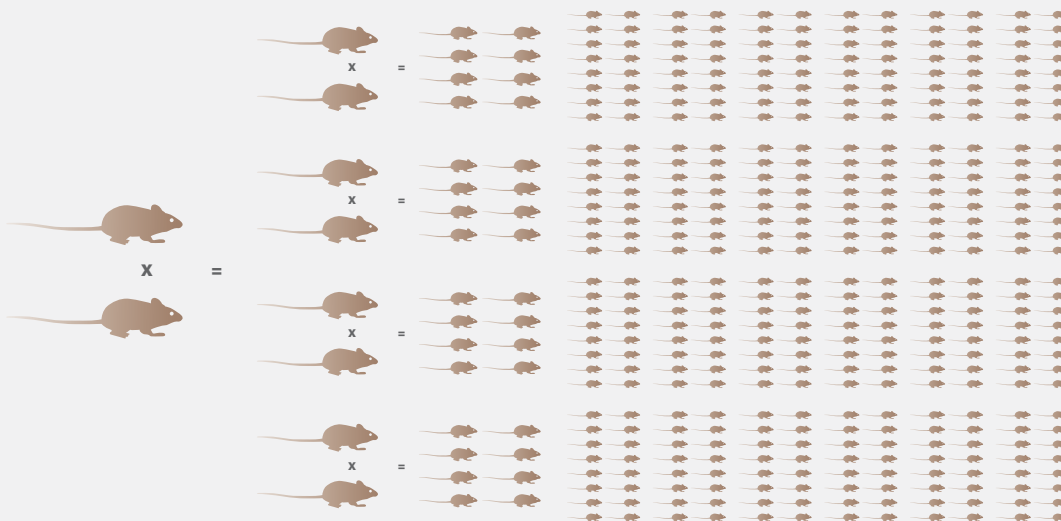
To develop an effective management program, you need to know what pest you are dealing with. Below are some quick identification tools and information regarding the reproduction cycles of rats and mice.

#### COMPARISON CHARTS



#### HOUSE MICE AND NORWAY RATS SHARE SEVERAL REPRODUCTIVE CHARACTERISTICS

##### Rapid rate of population growth



Their relatively short lifespans, short gestational periods and rapid sexual maturity make effective rodent control critical.

- A family of mice can grow over 100,000 mice in one year.
- Mice sexual maturity is reached in 5 to 8 weeks.
- Female mice reproduce up to 8 times in their lifespan, with litters averaging 4 to 7 pups. Therefore, a single female may produce up to 56 offspring annually.
- Rats average 4-6 litters per year. Each litter has 6-12 young.
- Rats reach reproductive maturity at 3 months, and can then become pregnant again hours after giving birth.

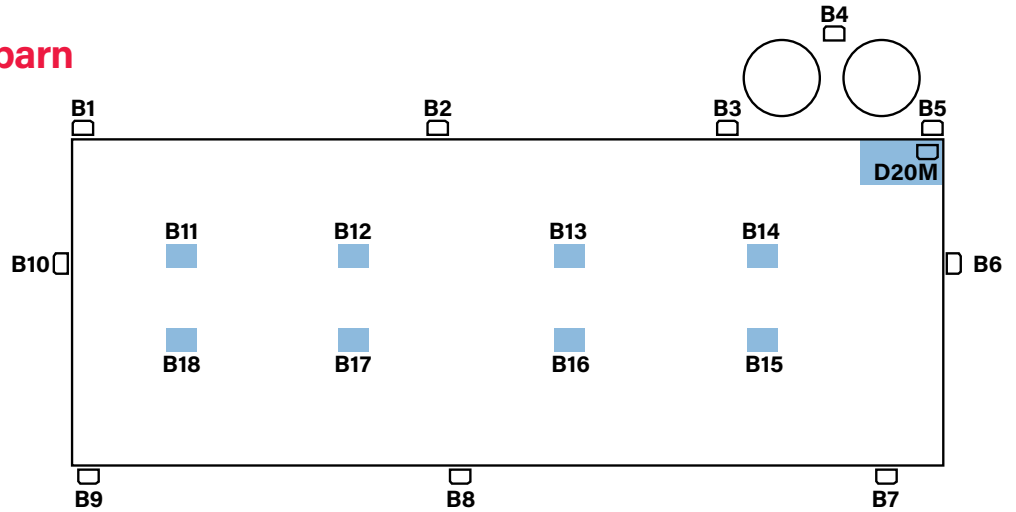
# 3. MONITORING YOUR TARGET AREAS

*"If you can't measure it, you can't improve it."*

KEEPING RECORDS OF YOUR BAIT STATIONS AND BAIT USAGE IS AN EFFECTIVE WAY TO TRACK YOUR IPM

## Make a simple diagram of barn

- Draw a diagram of the barn showing the location of all the stations.
- Make sure that each station has a unique name or number so that it can be easily identified.



## Recording of stations

- Record your visits in a simple spreadsheet to optimize monitoring.

	Hombre				Revolver	
	Baits deployed		Baits deployed		Baits deployed	
Location+date	% Baits consumed		% Baits consumed		% Baits consumed	
	Nov. 23, 2024		Nov. 30, 2024		Dec. 21, 2024	
B1	2		0		2	
B2	2		4		2	
B3	2		4		2	
B4	2		4		2	
B5	2		0		2	
D20M Mechanical station	20	in station	7	in station	1	in station
B6	2		0		2	
B7	2		0		2	
B8	2		4		2	
B9	2		0		2	
B10	2		4		2	
B11	2		2		2	
B12	2		2		2	
B13	2		2		2	
B14	2		2		2	
B15	2		2		2	
B16	2		2		2	
B17	2		2		2	
B18	2		0		2	

■ Yellow indicates how many baits were consumed in the past week. A square represents 25% of the baits deployed.

Makes it easier to determine how many baits you need at a specific station each week:

- > If consumption increases, you increase the bait amount; baits left intact can be monitored the following week.

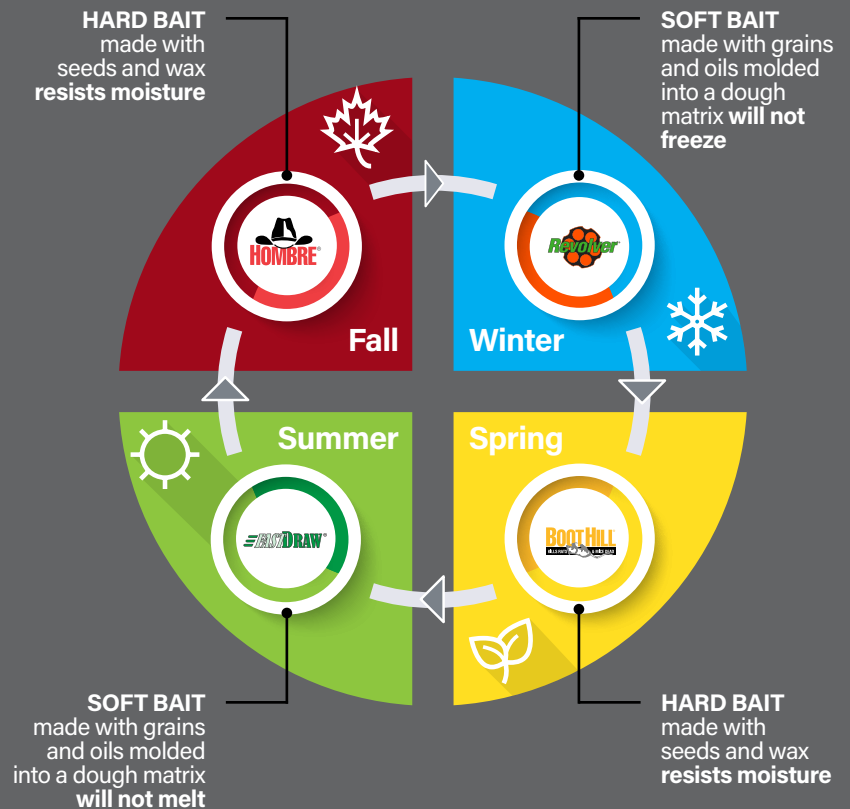
# ROTATION IS IMPORTANT

## The Season's Rotation Wheel For year-round control and everyday maintenance

### WHY A RODENTICIDE ROTATION PROGRAM IS IMPORTANT.

Continued use of just one active ingredient or bait form in areas with ongoing rodent activity may increase **the potential for a resistance problem**. That is why rotation is good for effective rodent control. Also, mouse populations often prefer one flavour or texture of rodenticide over another (i.e. behavioural resistance). It makes sense to use a rodenticide rotation program in livestock production facilities to improve the effectiveness of your rodent control program.

A rotation strategy that includes **FastDraw**, **Revolver**, **Hombre**, **BootHill** and **DoubleTap** rodenticides, used in conjunction with the **Aegis Bait Stations**, is your most effective means of controlling any rodent population. To follow provincial regulations, note that **DoubleTap** can be exchanged with either **Revolver** or **FastDraw**.

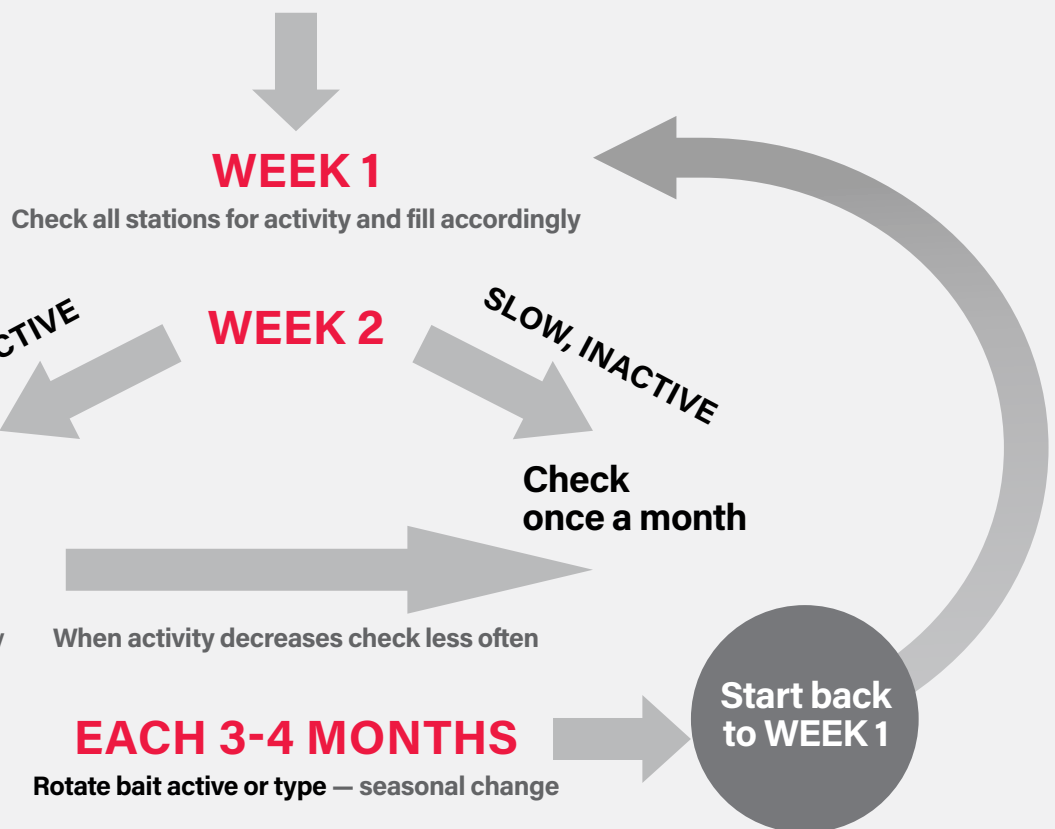


### FREQUENCY



#### React!

- Ensure that fresh bait is available
- Check for reasons for activity
- Check every two days







## 4. **THRESHOLD** — TOLERANCE

Everyone and every place will have a different level of **rodent acceptable presence**. To determine one for the site, potential damage and disease factors need to be taken into account. This will lead to the treatments needed.

## 5. **TREATMENT**

Throughout this IPM program, there have been different strategies (treatments) displayed for rodent deterrence and/or elimination. **Every treatment should be tried and “evaluated” for effectiveness in your situation.**

## 6. **EVALUATION**

Measurement of sequential monitoring sheets with a combination of area sighting on the map all help in determining treatment effectiveness. **This helps to highlight the most effective methods for your own situation.**

**All six (6) elements of the IPM will help determine the ideal plan for your specific site. Developing a treatment plan yourself is not always easy, and Solvet is here to help you in the analysis of treatment effectiveness to help you develop a treatment plan that is right for you.**





# A POTENT RANGE OF ACTIVE INGREDIENTS

ALL THE PRODUCTS PRESENTED HERE ARE EFFECTIVE AGAINST



House Mouse Norway Rat

**BOOT HILL®**  
KILLS RATS & MICE DEAD



## BROMADIOLONE

With mini blocks formulations, **BootHill®** gives users baiting options wherever moisture is a concern. Its active ingredient, bromadiolone, is a second-generation anticoagulant rodenticide. Combined with whole grains and a peanut flavour rodents are attracted to, **BootHill®** is a strong choice for any biosecurity rodent control.

- **Active ingredient: bromadiolone** (50 ppm).
- Works well where moisture is a concern.
- Mini blocks can be placed indoors and outdoors in a bait station for maximum baiting flexibility which is the most effective way to eliminate infestations.

Code	Description	Size
900112	BootHill® Mini Blocks	1.2 kg
900113	BootHill® Mini Blocks	10 kg
900114	BootHill® Mini Blocks	5 kg

**Revolver®**



**Revolver® Soft Bait** provides a highly palatable formulation of the most widely used active ingredient, bromadiolone. **Revolver® Soft Bait** pouches can be secured like conventional blocks in bait stations or placed directly in tight, hard-to-reach places where rodents live and blocks won't fit. Made with grains and oils, **Revolver® Soft Bait** is a food-grade bait that produce an aroma attracting rodents away from competing food sources, providing strong knock-down control of the toughest rodent populations.

- **Active ingredient: bromadiolone** (50 ppm).
- Soft bait that does not freeze nor melt, allowing it to be used all year around.
- Contains no wax, increasing palatability for improved bait acceptance.
- Can be placed indoors and outdoors in a bait station.

Code	Description	Size
900120	Revolver® Soft Bait	3.5 kg
900121	Revolver® Soft Bait	50 x 12 g
900122	Revolver® Soft Bait	7 kg

Products to be used in accordance with provincial regulations only by certified pest control operators, farmers and persons authorized in government-approved pest control programs. Refer to labels.

# A POTENT RANGE OF ACTIVE INGREDIENTS

ALL THE PRODUCTS PRESENTED HERE ARE EFFECTIVE AGAINST



House Mouse Norway Rat



## DIFETHIALONE

**Hombre**® is formulated with difethialone, a single-feed, second-generation anticoagulant. Mini blocks are designed with a center hole for securing to prevent rodents from translocating rodenticide into sensitive areas.

- **Active ingredient: difethialone** (25 ppm).
- Extremely effective for rat control.
- Mini blocks contain whole grains and flavourings.
- For use only in indoor areas.

Code	Description	Size
900107	Hombre® Mini Blocks	1.2 kg
900108	Hombre® Mini Blocks	10 kg
900109	Hombre® Mini Blocks	5 kg



**FastDraw**® Soft Bait is a revolutionary concept in rodenticide technology. It contains the active ingredient difethialone, food-grade grains and oils, and has a unique no wax formula. **FastDraw**® pouches combine the bait integrity of mini blocks with the money-saving, targeted dosing, of place packs. It is effective even in areas of infestation where competing food sources exist.

- **Active ingredient: difethialone** (25 ppm).
- Soft bait that does not freeze nor melt, allowing it to be used all year around.
- For use only in indoor areas.
- Perfect for knocking down large or small rodent populations.

Code	Description	Size
900117	Fast Draw® Soft Bait	3.5 kg
900118	Fast Draw® Soft Bait	60 x 10 g
900119	Fast Draw® Soft Bait	7 kg



## CHLOROPHACINONE

**DoubleTap**™ Soft Bait is the first and only chlorophacinone soft bait rodenticide in the Animal Health market. Add it into your rotation, especially on farms where other active ingredients and bait formulations have been used for long time periods or when second-generation baits are not allowed.

- **Active ingredient: chlorophacinone** (50 ppm).
- Multiple-feed first-generation anticoagulant rodenticide.
- Maintains its integrity in high temperatures.
- For indoor or outdoor use in a bait station.

Code	Description	Size
900129	DoubleTap™ Soft Bait Place Packs	1.8 kg

In accordance with provincial regulations, **DoubleTap**™ can be used in rotation with second-generation anticoagulant rodenticides (SGAR).



# A POTENT RANGE OF ACTIVE INGREDIENTS



## BAIT STATIONS THAT MEET GOVERNMENT REGULATIONS

The **Aegis® bait station** balances speed, quality, and performance. It is a fast-to-open station that saves you time and money thanks to a versatile design that accommodates bait, glue boards or traps. All **Aegis® stations** can be mounted both vertically and horizontally, and feature an entry/exit design that lures rodents in. A lid that opens away from the wall and the Aegis® universal key locking system make servicing quick and easy.

- The **Aegis® Mouse Bait Station** is designed for house mouse only.
- The **Aegis® RP Bait Station** is ideal for house mouse and rats.

Code	Description
900124	Aegis® Mouse Bait Station for house mouse + key
900125	Aegis® RP Bait Station + key



**Mhouse™ Refillable Bait Station** is a domestic-labeled rodenticide. Each package contains a lockable and re-usable **Aegis® Clear Lid Mouse Station**, along with 12 chlorophacinone blocks.

Code	Description	Size
900123	Mhouse™ blocks with bait station	12 x 20 g

## WHAT MAKES GOOD BAIT?

### Efficacy

It must work.

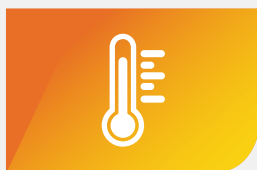
### Palatability

The target pest must want to consume the bait.

### Durability

It must stand up to the environmental conditions in which it is placed.

## PROGRAM SPECIFICS



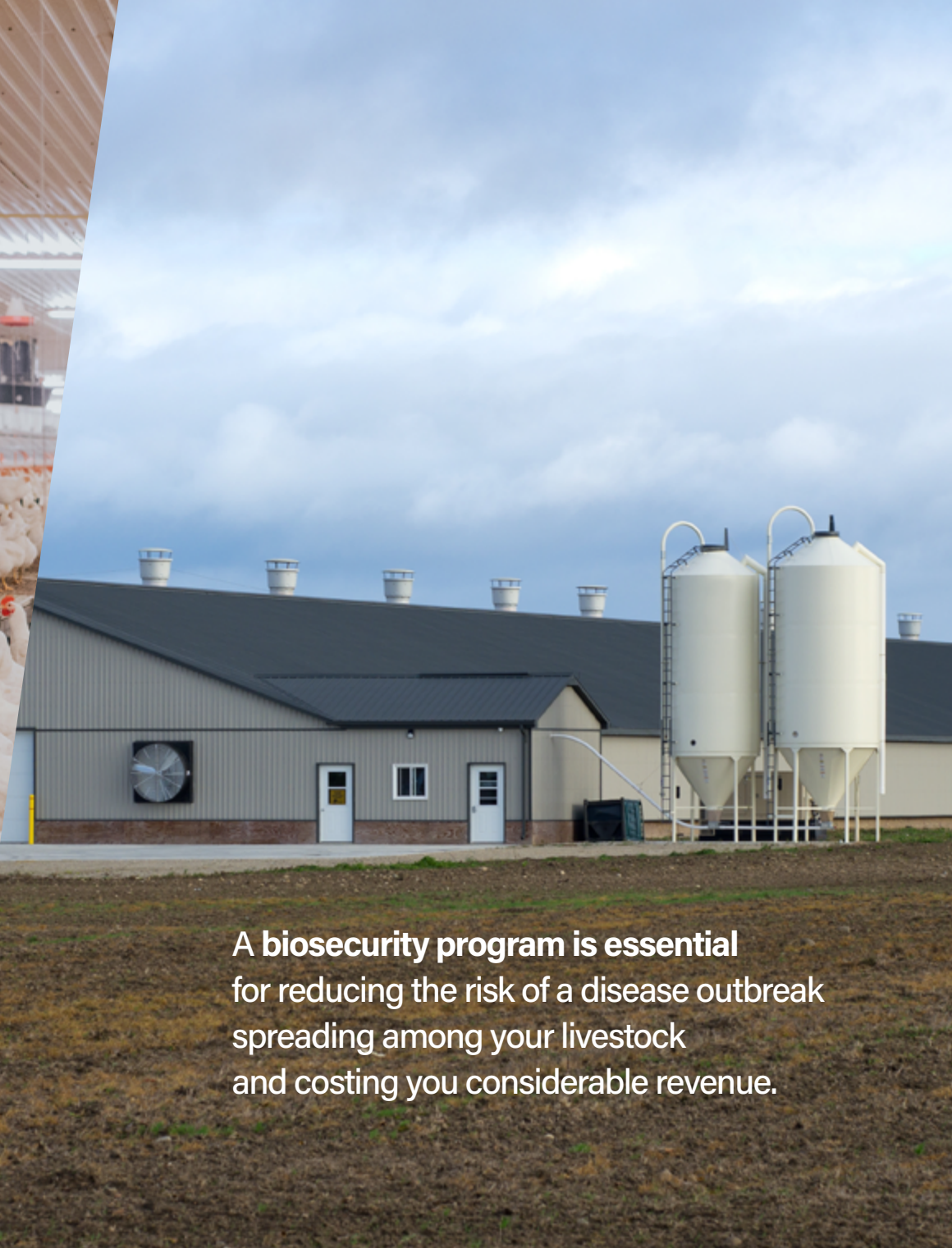
**Consider the weather:** Soft bait formulations can be used in hot or cold environments. Hard bait resists moisture.



**Rotation:** Use a varying active-ingredient rotation consisting of difethialone, bromadiolone and/or chlorophacinone.



**Bait station placement:** Place bait stations in intervals of **Mice:** 2-4 metres apart / **Rats:** 5-10 metres apart



A biosecurity program is essential for reducing the risk of a disease outbreak spreading among your livestock and costing you considerable revenue.



**VISIT OUR WEBSITE'S BIOSECURITY PROGRAMS SECTION FOR MORE BIOSECURITY INFORMATION**



**GET IN TOUCH WITH OUR BIOSECURITY SPECIALISTS**

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