



RODENT CONTROL

PROGRAM



FAST DRAW

The newest technology with the latest active ingredient on the market!

- Difethialone, 2nd generation anticoagulant
- No wax paste presentation
- High attractiveness
- High acceptance
- 0.0025% concentration (25 ppm)

FORMATS

10 g **Soft Bait Pouches**
in 3.5 kg • 7 kg pails

ADVANTAGES

- Very palatable
- Will not freeze or melt
- Resistant to moisture



BOOT HILL

Single feed anticoagulant — proven, trusted!

- Bromadiolone, 2nd generation anticoagulant
- Trusted for more than three decades
- Paraffinized for maximum weatherability
- Whole food grade grains
- 0.005% concentration (50 ppm)

FORMATS

Bar 12 x 454 g
Place Packs 75 x 43 g
Pellets (bulk) 20 kg
Mini-blocks 1.2 kg • 10 kg

ADVANTAGES

- Made from seeds
- Attractive low wax formula



REVOLVER

The newest technology available with an active ingredient trusted for more than 30 years!

- Bromadiolone, 2nd generation anticoagulant
- Paste presentation (12 g pouch)
- Endures extreme temperatures (hot and cold)
- Versatility for hard to reach places
- High acceptance rate even when other food sources are available
- 0.005% concentration (50 ppm)

FORMATS

12 g **Soft Bait Pouches**
in 3.5 kg • 7 kg pails

ADVANTAGES

- Very palatable
- Will not freeze or melt
- Resistant to moisture



HOMBRE

The newest active ingredient formulated at the lowest concentration!

- Difethialone, 2nd generation anticoagulant
- The most efficient active ingredient against rats and mice
- Single feed rodenticide that prevents bait shyness
- The newest and 1st anticoagulant registered in more than a decade
- 0.0025% concentration (25 ppm): makes it nearly impossible for rodents to detect

FORMATS

Bar 12 x 454 g
Place Packs 100 x 25 g • 200 x 25 g
Pellets (bulk) 10 kg
Mini-blocks 1.2 kg • 5 kg • 10 kg

ADVANTAGES

- Made from seeds
- Attractive low wax formula



ADVANTAGES OF THE SOFT BAIT POUCHES

- Non-wax soft bait
- Made from food grade oils and grains
- Attractive aroma lures rodents away from feed sources
- Can be placed in stations or secured with nails or wires in attics

WHY DO YOU NEED TO IMPLEMENT A RIGOROUS BIOSECURITY PROGRAM FOR RODENT CONTROL?

RODENTS

- Rats and mice are the most destructive vertebrates on earth.
- Rats **destroy** or contaminate large volumes of **crops** worldwide each year.
- They cause major **damage** to barn structure & insulation.
- Rats and mice may cause **fires** by chewing and damaging electrical wiring.

FOR HEALTH REASONS

Rats and mice are responsible for the spread of numerous diseases. Rodents contaminate feed supplies with viruses and bacteria that are detrimental to the health of your livestock. Therefore, a rodent control program is of primary importance to prevent infestations.

FOR ECONOMIC REASONS

Rodent infestations cause damage to buildings. Holes, walls and insulation material have to be repaired or replaced: Rodents gnaw on these materials to grind down their continuously growing teeth.

Rodent infestation adds stress to your livestock, resulting in decreased production.

Rodents consume your feed supplies. For example, a single Norway rat can eat up to 11 kg (24 lb) of feed in a year.



SIGNS OF RODENT INFESTATION

- Urine deposits
- Droppings
- Chewing damage
- Rub marks
- Paths

Place bait and devices near these signs.

MANAGING YOUR RODENT CONTROL

THE KEY IS CONSISTENCY

To have a good rodent control program, consistency is important to prevent infestation. Well-attended bait stations and devices will keep your farm buildings less attractive to rodents seeking feed and nesting for reproduction.

BAITING TIPS

- Secure bait in bait stations and keep the bait fresh, and not accessible to non-target species.
- In the attic secure stations or bait with a nail or with a wire.
- It is more efficient to place more stations with less bait in each station than fewer stations with more bait.
- Do not place bait stations only on the floor; rodents are very good climbers. Install bait on posts, pipes and beams.
- Place bait near activity signs.

RODENTICIDES

Keep bait fresh in stations, replace bait when mold and moisture affect the bait. Rodents have a superior sense of smell and will not eat decayed bait.

MAKE REPAIRS

- Make all the necessary repairs around buildings.
- Plug all holes and burrows.
- Doors should close tightly with no gap.
- Pay attention around the building for infiltration under siding.
- Check ventilation grills to prevent rodents and birds from entering the barn.
- Keep building surroundings clean: avoid weeds, bushes, litter heaps, animal carcasses and debris.
- Remove any feed spills from the ground.
- Cut tree branches that touch the building.



MECHANICAL TRAPS

Multiple catch:

Can catch many mice, ideal beside doors and in feed areas. They can be baited with an attractant like peanut butter. Some glue boards will fit inside the device, keeping it clean and making it easier to dispose of carcasses. Place the entry hole of the device along a wall.

Snap traps:

Place traps so that the trigger is facing a surface (walls, boards, cabinets, etc). Bait snap traps with an attractant like peanut butter.

RODENT CONTROL PROGRAM



Table of device frequency check-up

MANAGEMENT	PERIOD	FREQUENCY*
Rodent multiple catch devices and traps ⁽¹⁾ (Evaluate bait consumption, clean station and replace bait as needed)	All year	Weekly
Outside bait stations ⁽²⁾ (Evaluate bait consumption, clean station and replace bait as needed)	Until snow cover	Monthly
Inside bait stations ⁽³⁾ (Evaluate bait consumption, clean station and replace bait as needed)	All year	Monthly
Attics ⁽⁴⁾ (Evaluate bait consumption and replace bait as needed)	Spring and fall	Biannually

DETAILS

(1) Rodent multiple catch devices and traps:

To control rodent infiltration inside the building. These devices should be installed near doors and feed storage areas. Inspection should be done weekly. Catches should be recorded in the **Rodent Control Device Data Log (page 10)**. Clean device after removal of carcasses. Bait devices with attractants like peanut butter. Place devices against a wall with the trigger facing the wall or the entry holes of device along a wall.

(2) Outside bait stations:

These stations are the first line of defense against rodent infiltration. They must be installed and secured at intervals of 30-40 feet around buildings and feed silos. The perimeter of buildings must be free of debris and vegetation to deter rodents from venturing near the buildings. Inspection should be done at least monthly. The bait consumption and the type of rodenticides must be recorded in the **Rodenticide Use Log (page 11)**.

(3) Inside bait stations:

These bait stations must be securely installed in all areas of the barn, near doors, feed storage, hallways, mechanical rooms, office and shipping areas. Keep bait out of reach of non-target animals. Bait stations must be checked at least monthly. Bait consumption and the rodenticides used must be recorded in the **Rodenticide Use Log (page 11)**.

(4) Attics:

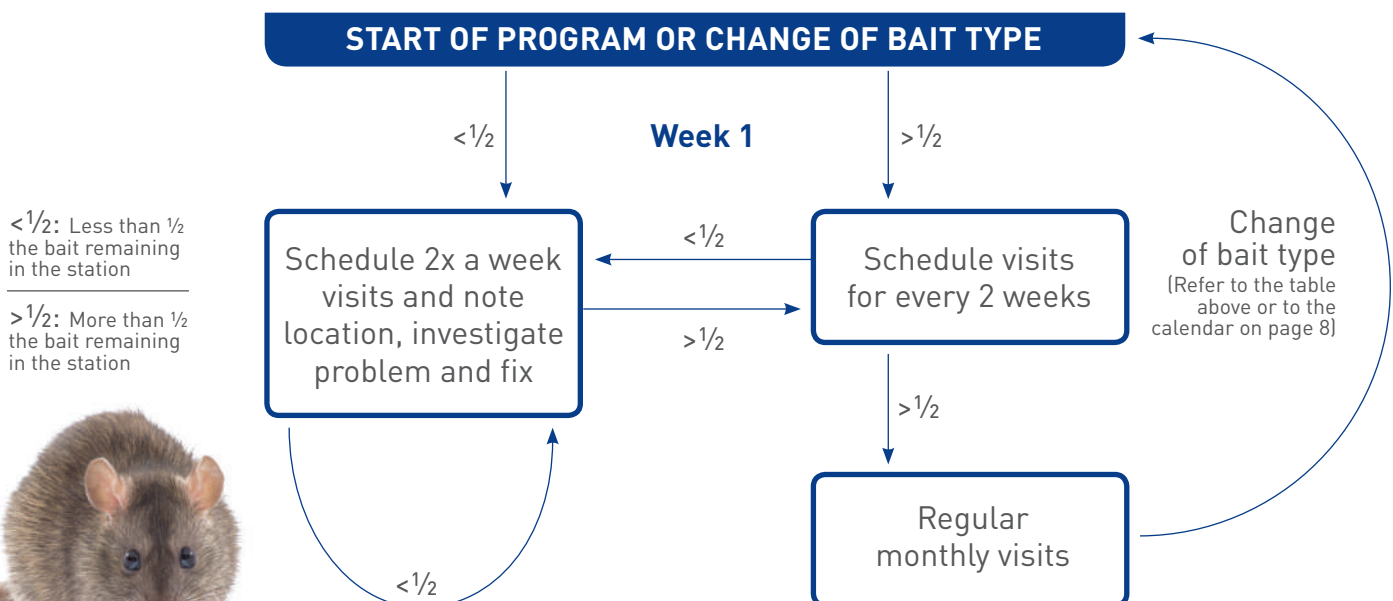
Baiting is to follow the decision tree above. Securely install baits to cover the entire attic every 10 feet along the perimeter. Make sure the bait is retrievable. Bait consumption and the rodenticides used must be recorded in the **Rodenticide Use Log (page 11)**. If the presence of birds, raccoons and insects is observed make the necessary repairs and treatments to eliminate them.

* The frequencies suggested are the minimum check-ups that must be done.

We suggest referring to the frequency decision flow chart. All stations need to be individually identified with a unique number. Application of rodenticide must be noted in the **Rodenticide Use Log (page 11)**.

DECISION TREE

Decision flow chart for device frequency check-up



RATS

Life span	1-3 years
Number of litters	6-10 litters
Offspring per litter	8-9 pups
Sexual maturity	8-12 weeks
Length	410 mm (16 inches)
Weight	340 g (0.75 lbs)
Home range span	8-80 meters (26-262 feet)
Food consumption	15-30 g/day (28 g = one mini-block)
Water consumption	30-60 ml/day (2 to 4 tablespoons)
Behaviour	Suspicious



Rats are very suspicious of everything in their environment.

They are intelligent and can avoid traps and baits after seeing their cohorts poisoned. Place traps or bait stations, without setting the traps or baiting for a few days, in order for the rats to get used to them.

FOOTPRINTS



FECES



1.9 cm
(0.75 inch)

MICE

Life span	1-2 years
Number of litters	6-10 litters
Offspring per litter	5-6 kittens
Sexual maturity	6-10 weeks
Length	65-100 mm (2.5 to 4 inches)
Weight	13-30 g (0.5-1.1 oz)
Home range span	2-10 meters (6.5-33 feet)
Food consumption	2-4 g/day (0.07-0.14 oz/day)
Water consumption	6 ml/day (1 teaspoon)
Behaviour	Curious



Mice are very curious of anything new in their environment and they will explore new baits or traps.

- Mice can live without water for days
- Mice will follow the smell of other mice
- A 0.6 cm (1/4 inch) hole is enough for infiltration

FOOTPRINTS



FECES



0.6 cm
(0.25 inch)

CALENDAR FOR DEVICES

SEASONAL BAIT CHOICES

JANUARY	FEBRUARY	MARCH
FAST DRAW		

Weekly	Rodent multiple catch devices and traps
Monthly	Bait stations
Biannually	Attics

Change in chemical to help prevent resistance.



APRIL	MAY	JUNE
BOOT HILL		

Weekly	Rodent multiple catch devices and traps
Monthly	Bait stations
Biannually	Attics

Change in presentation will help with attractiveness to the bait.



JULY	AUGUST	SEPTEMBER
REVOLVER		

Weekly	Rodent multiple catch devices and traps
Monthly	Bait stations
Biannually	Attics

Change in chemical to help prevent resistance.



OCTOBER	NOVEMBER	DECEMBER
HOMBRE		

Weekly	Rodent multiple catch devices and traps
Monthly	Bait stations
Biannually	Attics

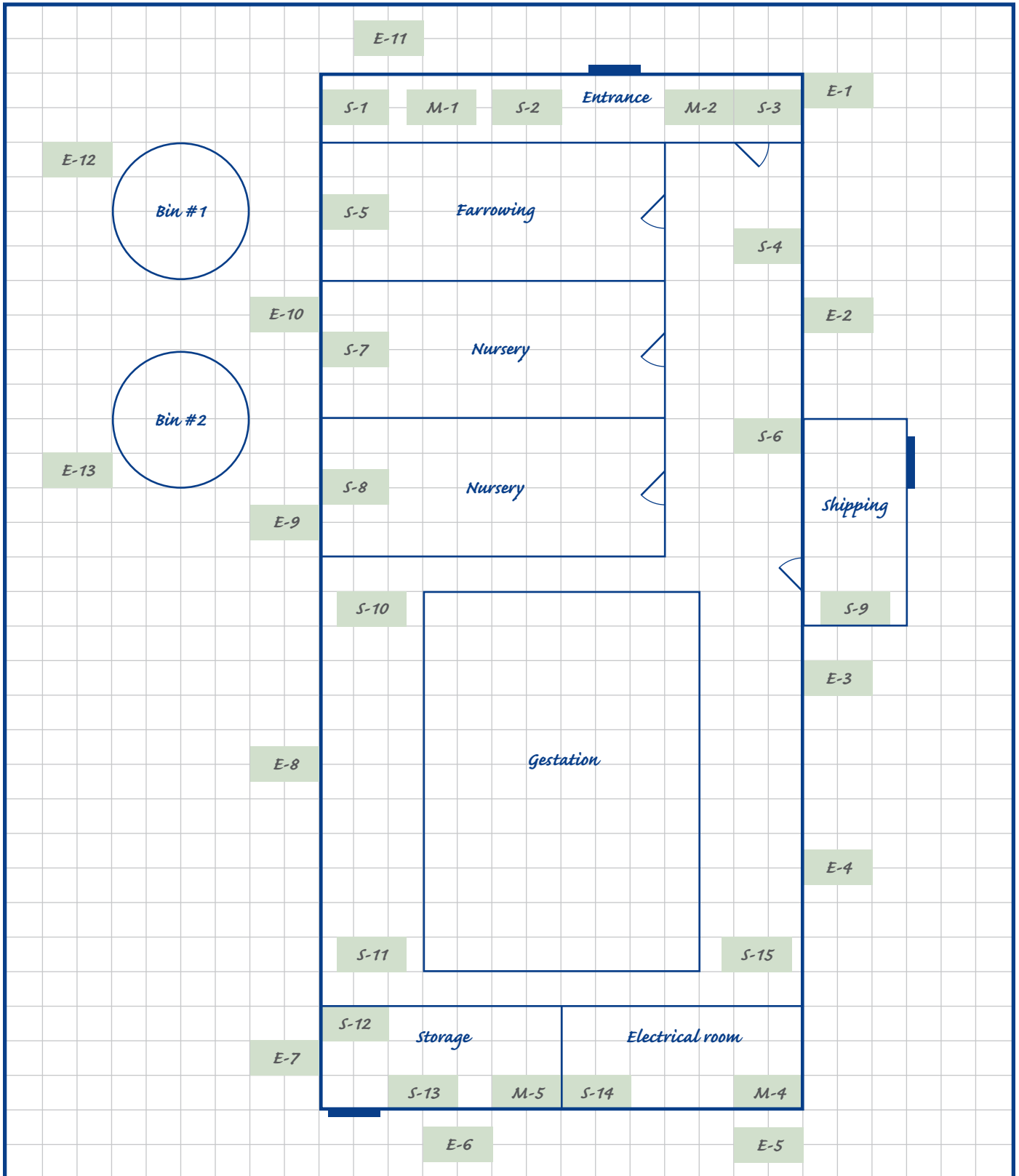
Change in presentation will help with attractiveness to the bait.



JANUARY	FEBRUARY	MARCH
FAST DRAW		



NETWORK MAP



LEGEND	DATE
S: Inside bait station M: Mechanical trap E: Outside bait station	



RODENT CONTROL

DEVICE DATA LOG EXAMPLES

DEVICE		BUILDING #		NAME					
<input checked="" type="radio"/> Mechanical rodent trap (M)		Barn #1		John Doe					
<input checked="" type="radio"/> Mouse trap (MT)		RODENTS M: Mice • R: Rats		DATE					
<input type="radio"/> Rat Trap (RT)				March 3 rd , 2050					
DEVICE #	DEVICE CHECKED	MONITORING			DEVICE #	DEVICE CHECKED	MONITORING		
		#	Rodent	Inspection & comments			#	Rodent	Inspection & comments
M-1	<input checked="" type="radio"/>	3	M	1 mouse alive	MT-1	<input checked="" type="radio"/>	1	M	Baited - young mouse
M-2	<input checked="" type="radio"/>	2	M		MT-2	<input checked="" type="radio"/>	1	M	Baited
M-3	<input checked="" type="radio"/>	0			MT-3	<input checked="" type="radio"/>	1	M	Baited
M-4	<input checked="" type="radio"/>	3	M	Droppings on the ground	MT-4	<input checked="" type="radio"/>	0		Droppings under cabinet
M-5	<input checked="" type="radio"/>	4	M	Holes in feed bag	MT-5	<input checked="" type="radio"/>	0		Moved under desk
	<input type="radio"/>					<input type="radio"/>			
	<input type="radio"/>					<input type="radio"/>			
	<input type="radio"/>					<input type="radio"/>			
	<input type="radio"/>					<input type="radio"/>			
	<input type="radio"/>					<input type="radio"/>			
	<input type="radio"/>					<input type="radio"/>			

Active areas: search for holes and possibly add stations

NEXT VISIT

DEVICE		BUILDING #		NAME					
<input checked="" type="radio"/> Mechanical rodent trap (M)		Barn #1		John Doe					
<input checked="" type="radio"/> Mouse trap (MT)		RODENTS M: Mice • R: Rats		DATE					
<input type="radio"/> Rat Trap (RT)				April 3 rd , 2050					
DEVICE #	DEVICE CHECKED	MONITORING			DEVICE #	DEVICE CHECKED	MONITORING		
		#	Rodent	Inspection & comments			#	Rodent	Inspection & comments
M-1	<input checked="" type="radio"/>	1	M	Cleaned	MT-1	<input checked="" type="radio"/>	0	M	
M-2	<input checked="" type="radio"/>	1	M	Doors were repaired and traps added	MT-2	<input checked="" type="radio"/>	1	M	Young mouse
M-3	<input checked="" type="radio"/>	0			MT-3	<input checked="" type="radio"/>	0	M	
M-4	<input checked="" type="radio"/>	1	M	Cleaned	MT-4	<input checked="" type="radio"/>			Baited
M-5	<input checked="" type="radio"/>	0			MT-5	<input checked="" type="radio"/>	0		
	<input type="radio"/>			Holes around electrical pipe were sealed	MT-6	<input checked="" type="radio"/>	1		Adult mouse
	<input type="radio"/>				MT-7	<input checked="" type="radio"/>	1		Baited - adult mouse
	<input type="radio"/>				MT-8	<input checked="" type="radio"/>	1		Baited - young mouse
	<input type="radio"/>				MT-9	<input checked="" type="radio"/>	0		
	<input type="radio"/>					<input type="radio"/>			

RODENTICIDE USE LOG EXAMPLES

DATE		NAME				BUILDING #			
March 3 rd , 2050		John Doe				Barn #1			
INSIDE BAIT STATION: S					OUTSIDE BAIT STATION: E				
BAIT STATION #	CONSUMPTION	Qty applied	Bait	Comments	BAIT STATION #	CONSUMPTION	Qty applied	Bait	Comments
S 1	0 1 (2) 3	2			E 1	0 1 (2) 3	1		
S 2	0 1 (2) 3	2		Add stations	E 2	0 1 (2) 3	1		
S 3	0 1 (2) 3	2			E 3	(0) 1 2 3	2	5	Puddles of water: rectify drainage
S 4	0 (1) 2 3	1			E 4	(0) 1 2 3	1	5	
S 5	(0) 1 2 3	1	5	Remove when cleaning	E 5	0 1 (2) 3	2		
S 6	(0) 1 2 3	1			E 6	0 (1) 2 3	1	6	
S 7	(0) 1 2 3	1	5		E 7	0 (1) 2 3	1	6	Cut grass
S 8	(0) 1 2 3	0			E 8	0 1 2 (3)	1		
S 9	0 1 2 (3)	2			E 9	0 1 2 (3)	2		
S 10	(0) 1 2 3	1	4		E 10	0 1 (2) 3	3		
S 11	(0) 1 2 3	1	4		E 11	0 (1) 2 3	3	4	
S 12	0 1 2 (3)	2			E 12	0 1 2 (3)	3		
S 13	0 1 2 (3)	2			E 13	0 1 2 (3)	3		
S 14	0 1 2 (3)	2			E	0 1 2 3			
S 15	0 1 (2) 3	1			E	0 1 2			Major activity: check stations every week until activity is eliminated
S	0 1 2 3			Infiltration: search for holes to seal	E	0 1 2 3			
S	0 1 2 3				E	0 1 2 3			
S	0 1 2 3				E	0 1 2 3			
S	0 1 2 3				E	0 1 2 3			

Hombre mini-blocks: 28 g
 Boot Hill blocks: 28 g
 Revolver soft bait: 12 g
 Fast Draw: 10 g

Follow up Seal bottom of the entrance and exit doors. Add exterior bait stations around bins and fill up burrows. Cut grass at the back of the barn. Check all exterior bait stations next week. Seal gap around electrical pipe.

LEGEND

CONSUMPTION	BAIT	STATIONS	RODENT
0. No bait consumption	4. Bait decayed or deteriorated	7. Broken bait station	R: Rats
1. Low bait consumption ($< \frac{1}{2}$)	5. Mold on bait	8. Missing station	M: Mice
2. Medium bait consumption ($= \frac{1}{2}$)	6. Insects or slugs on bait	9. Replaced bait station	N: Rodent nest
3. High bait consumption ($> \frac{1}{2}$)			

Refer to decision tree (page 5)

BAITING OF ATTICS

EXAMPLES

DATE	NAME	BUILDING #
<i>November 27, 2049</i>	<i>Barn #1</i>	<i>John Doe</i>
PRODUCTS	COMMENTS	
<input checked="" type="radio"/> Hombre 2 Kg	<i>1. Low bait consumption at both ends Mice</i>	
<input type="radio"/> Boot Hill Kg		
<input type="radio"/> Fast Draw Kg		
<input type="radio"/> Revolver Kg		
DATE	NAME	BUILDING #
<i>March 3, 2050</i>	<i>Barn #1</i>	<i>John Doe</i>
PRODUCTS	COMMENTS	
<input type="radio"/> Hombre Kg	<i>3. High bait consumption at both ends Mice Increase monitoring schedule</i>	
<input type="radio"/> Boot Hill Kg		
<input checked="" type="radio"/> Fast Draw 2.5 Kg		
<input type="radio"/> Revolver Kg		
DATE	NAME	BUILDING #
<i>April 5, 2050</i>	<i>Barn #1</i>	<i>John Doe</i>
PRODUCTS	COMMENTS	
<input type="radio"/> Hombre Kg	<i>1. Low bait consumption</i>	
<input checked="" type="radio"/> Boot Hill 2 Kg		
<input type="radio"/> Fast Draw Kg		
<input type="radio"/> Revolver Kg		
DATE	NAME	BUILDING #
PRODUCTS	COMMENTS	
<input type="radio"/> Hombre 2 Kg		
<input type="radio"/> Boot Hill Kg		
<input type="radio"/> Fast Draw Kg		
<input type="radio"/> Revolver Kg		

LEGEND OF COMMENTS

0. No bait consumption

1. Low bait consumption ($< \frac{1}{2}$)

2. Medium bait consumption ($= \frac{1}{2}$)

3. High bait consumption ($> \frac{1}{2}$)

4. Bait decayed or deteriorated

5. Mold on bait

6. Insects or slugs on bait

7. Birds or raccoons

CALCULATOR FOR BAIT AND BAIT STATION REQUIREMENTS

OUTSIDE YOUR BUILDINGS

OUTSIDE BAIT STATIONS Calculation to be done for each building

$$\left(\text{Length (Feet)} + \text{Width (Feet)} \right) \times 2 = \text{Total linear feet} \div 30 = \text{Number of outside bait stations (A)}$$

Outside buildings it is recommended to place bait stations 30 to 40 feet apart. However, in certain areas (around silos) you can choose to put more than one bait station. It is important to properly cover the outside perimeter in order to ensure maximum protection inside the building. It is recommended to use the rat bait station for the outside locations.

REQUIRED BAIT TO FILL THE BAIT STATIONS OUTSIDE THE BUILDINGS

$$\text{No. of bait stations (A)} \times \text{Quantity in grams of bait to place inside the bait station (B)} = \text{Total grams} \div 1000 = \text{Kg (C)}$$

Because outside bait stations are the first line of defense, it is highly recommended to put at least 40 grams of bait material in each station. Putting less with high rodent activity will hinder your rodent control program.

YOUR ATTICS

REQUIRED BAIT FOR ATTICS

$$\text{Perimeter (Feet) (F)} \div \text{Space between bait (Feet) (G)} = \text{Number of bait stations (H)} \times \text{Quantity in grams of bait to place inside the bait station (I)} = \text{Total grams} \div 1000 = \text{Kg (J)}$$

Attics are the place of choice for mice to build their nests and because of their territorial spread, bait should be spaced every 10 feet. Spacing bait more than 10 feet can lead to having a colony not having access to bait at all.

In attic bait stations it is recommended to put at least 40 grams of bait material in each station. Putting less with high rodent activity will hinder your rodent control program.

INSIDE YOUR BUILDINGS

INSIDE BAIT STATIONS

It is difficult to quantify number of bait stations needed for inside farm buildings. Pens and other obstacles can be in the way for an optimum bait station placement.

Ideally, bait stations should be placed every 10 feet. However, when this is not possible, you need to place at least one bait station per room and one as close as possible to doors leading to the exterior. No bait should be readily available to animals in the room or building.

You will need to determine how many bait stations you need in order to calculate the quantity of bait you need for controlling rodents inside your buildings. It is recommended to use mice bait stations inside, unless you have an identified rat problem inside. This program and the decision tree (page 5) will help with adjusting this calculation.

REQUIRED BAIT FOR STATIONS INSIDE BUILDING

$$\text{No. of bait stations (L)} \times \text{Quantity in grams of bait to place inside the bait station (M)} = \text{Total grams} \div 1000 = \text{Kg (N)}$$

Minimum recommended to check outside bait stations is 9 times a year. However, snow fall accumulation can hinder this process. Vetoquinol recommends that you check your bait stations at least once a month for as many months as you can.

$$\text{TOTAL OF BAIT REQUIRED (C + J + N) Kg}$$

PRODUCT ROTATION IS IMPORTANT



It is recommended to change both the chemistry (type of ingredient: bromadiolone, difethialone) and presentation (mini-blocks, soft bait, etc.) to excite rodents' appetite. **Alternating chemistry and presentation is the best way to prevent bait shyness and resistance to improve bait acceptance.**





clubvetoquinol.ca

BECAUSE YOU ARE ALWAYS ON THE JOB

REWARD YOURSELF

MSDS:

Current MSDS for all Vetoquinol rodenticides are available on www.vetoquinol.ca. Click on the link on the website.

PRODUCT LABELS:

Current Vetoquinol rodenticide product labels are available on the Vetoquinol website at www.vetoquinol.ca under the Biosecurity section.

A BIOSECURITY PROGRAM FOR RODENT CONTROL HELPS YOU UNDERSTAND, IDENTIFY, CONTROL AND SUCCESSFULLY PREVENT FUTURE RODENT INFESTATIONS.

In combination with innovative bait station design, we provide advanced and efficient solutions for your specific needs. We make sure that all our rodent pest management knowledge and expertise is added to what they eat.



FOR FURTHER INFORMATION PLEASE CONTACT YOUR TERRITORY MANAGER

PROVINCE OF QUEBEC Territory Manager Production Animals

Claude Morin, AGR.

514.884.6217 claudemorin@vetoquinol.com

ATLANTIC, ONTARIO AND WESTERN CANADA Biosecurity Technician Production Animals

Dave Van Wallegghem, B.S.A

204.612.6065 dave.vanwallegghem@vetoquinol.com





2000, chemin Georges
Lavaltrie (Québec)
J5T 3S5 Canada

www.vetoquinol.ca

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