



# PRODUCT GUIDE



**LIPHA**TECH<sup>®</sup>AG



# HELPING PROTECT PRODUCTION



While you run your operation, we help protect your valuable assets. At Liphatech Ag, 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 products undergo a rigorous quality control process, ensuring each block, pouch and pellet meets the highest standards.

## OUR SERVICE IS SUPERIOR

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.

## A HISTORY OF INNOVATION

**1946**  
Liphatech's original parent company founded in France, primarily researching pharmaceuticals

**1960s – 1970s**  
Development of two leading anticoagulants: chlorophacinone and bromadiolone

**1987**  
State of the art U.S. facility opened in Milwaukee, WI – Research at this facility and in Europe lead to the discovery of difethialone, another second-generation anticoagulant

**2002 to present**  
Liphatech becomes a proud member of the De Sangosse group, a worldwide leader in agricultural inputs and pest management products

## KNOW YOUR TARGET: PEST ID/BEHAVIOR/REPRODUCTION

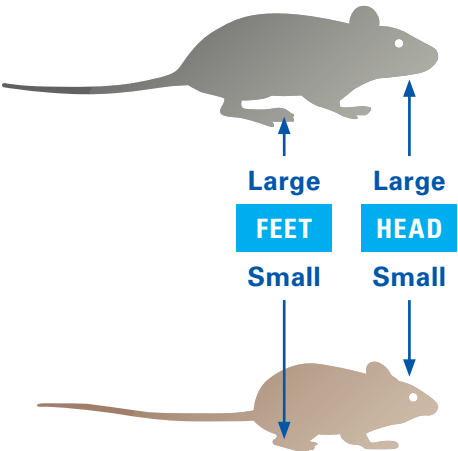
To develop an effective management program, you need to know what pest you are dealing with. Below are some quick identification tools and information regarding the reproduction cycles of rats and mice.



**SCAN THIS QR CODE**  
for more in-depth information and videos.

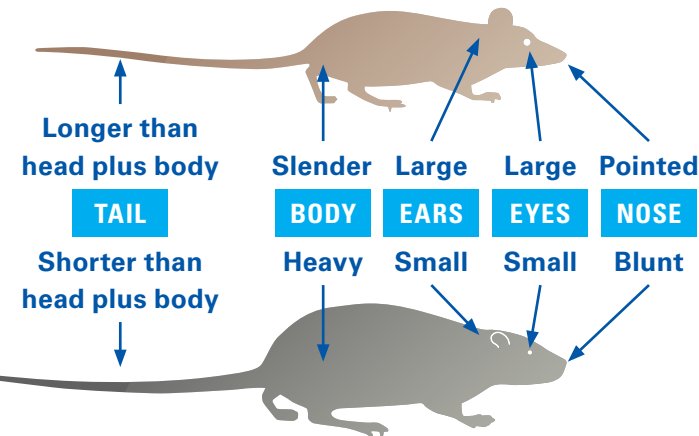
### COMPARISON CHARTS

#### Young Norway Rat



House Mouse

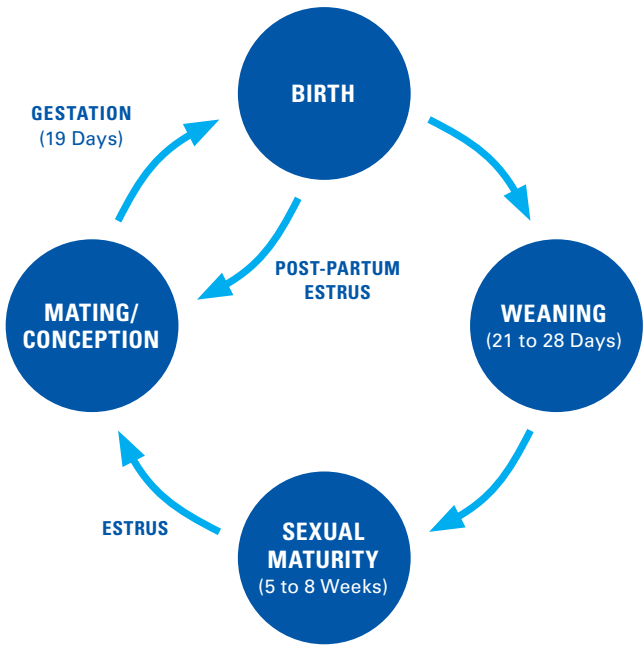
#### Roof Rat



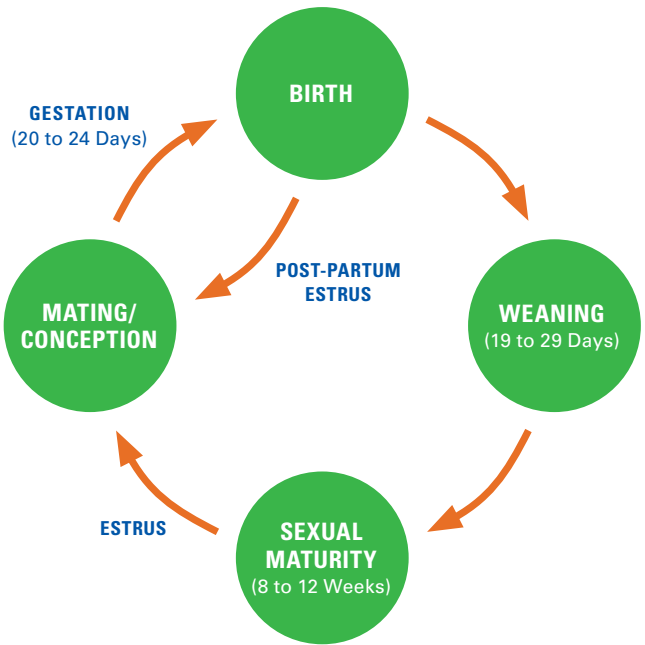
Norway Rat

### REPRODUCTION CYCLES

#### House Mouse



#### Norway and Roof Rats







# 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.

Liphatech Ag can help you to develop your own comprehensive rodent management plan with the appropriate combination of tools, baiting methods and station placements.

There is no such thing as a “one size fits all” recommendation. While the elements below appear in most programs, an effective program doesn’t need to proceed in a prescribed order. 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.

## 7 Keys to Rodent Management:

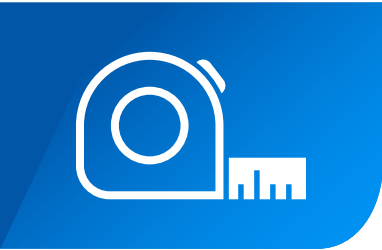
- 1 | **Know your target** – Identify specific rodents and their populations to know what you are dealing with and what products and management will be required.
- 2 | **Take a good look around** – Inspect infested buildings and surrounding areas.
- 3 | **Keep them out** – Find any unnecessary openings to exclude rodents from buildings.
- 4 | **Find the preferred hideouts** – Note any areas in your facilities that may provide rodents with food, water and shelter.
- 5 | **Do your research** – Identify management solutions specific to the rodents and their infestation site.
- 6 | **Take action** – Implement rodent management measures tailored to the site.
- 7 | **Evaluate results** – Make necessary improvements to the management program.



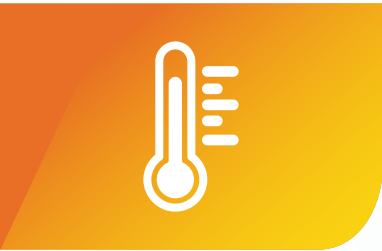
**SCAN THIS QR CODE**  
to connect with our team to establish  
a step-by-step rodent control plan.

## Program Specifics

Whether you conduct rodent management procedures yourself or hire an applicator, here are a few guidelines to integrate into your current program:



**Bait station placement:**  
Place bait stations  
in intervals of  
**Mice:** 8-12 feet apart  
**Rats:** 15-30 feet apart



**Consider the weather:**  
Use a soft bait during  
warm weather months.



**Burrow treatments:** Bait with  
paraffinized pellets or meal  
bait according to product  
label directions, or bait  
stations may be placed within  
3 feet of the burrow.



**Baiting frequency:** In order  
to maintain a supply of fresh  
bait, it is recommended to  
replace bait every 3–4 weeks,  
if not sooner, based on  
site-specific inspection and  
rodent population levels.

- Once every two weeks for  
both interior and exterior  
bait placements during low  
to moderate infestations
- Weekly for moderate to  
high infestations



**Rotation:** Use a 3 to 4  
active-ingredient rotation  
consisting of difethialone,  
bromadiolone, chlorophacinone  
and/or bromethalin.

To get an idea of the  
rodent potential on your  
farm, we recommend  
conducting a thorough  
night inspection of all  
barns quarterly or twice  
a year at a minimum.

Based on signs of known  
rodent activity, consider  
placing extra bait stations  
in the following areas:

- Inside cool cell areas
- Egg rooms
- Mechanical rooms
- Admin areas
- Storage areas
- Manure pits or storage
- Attics

**CONTACT YOUR LIPHATECH AG REPRESENTATIVE FOR MORE INFORMATION  
AND OPERATION-SPECIFIC GUIDELINES. ALWAYS FOLLOW THE DIRECTIONS  
FOUND ON THE PRODUCT LABEL.**

# ROTATION WORKS

Proper rotation of multiple rodenticides helps to preserve and maintain the efficacy of the active ingredients for the future. Using only one active ingredient or bait type in areas with ongoing rodent activity can increase the potential for a resistance problem.

## Two Types of Resistance

In addition to chemical resistance, there is also potential for behavioral resistance - when populations (mice in particular) can prefer one flavor or texture of rodenticide over another. A well-planned rotation program helps to address these issues.

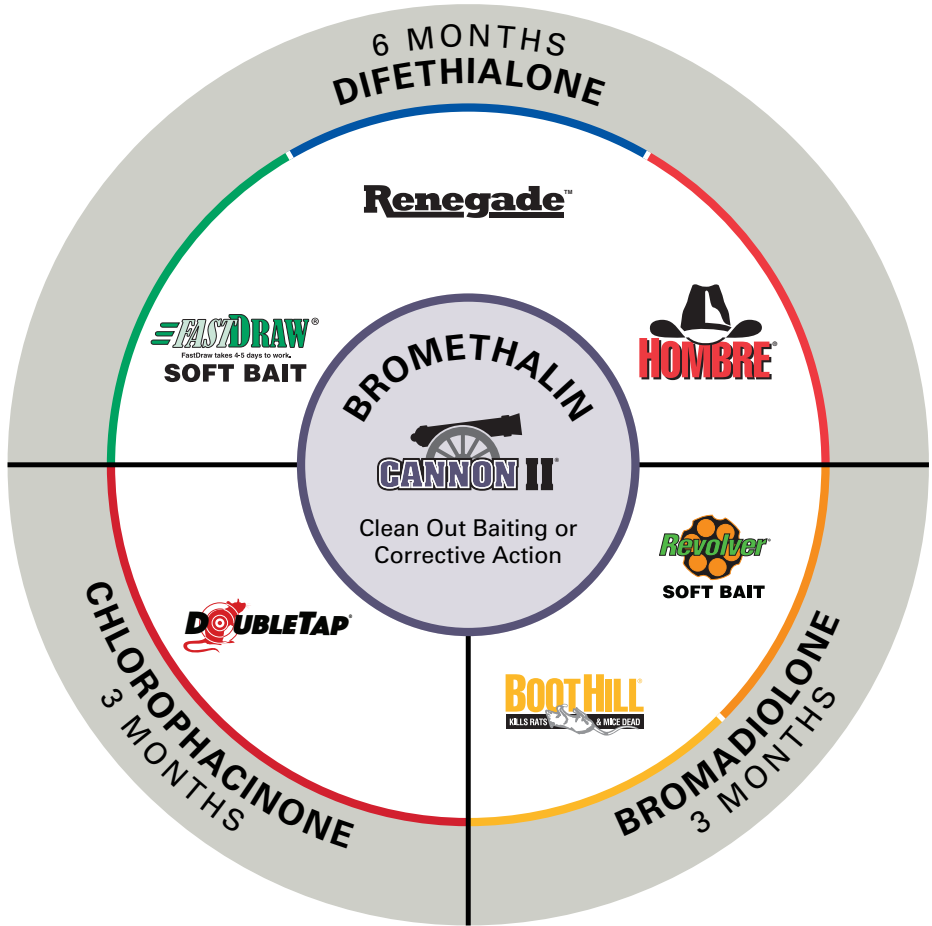
Liphatech Ag offers a complete, year-round rotation of three active ingredients plus an option for clean-out periods.

### 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.



# PRESENTING BAIT

Active ingredients take care of efficacy, but the other two categories are affected by the “presentation” of the bait.

There are multiple ways to “present” the various active ingredients Liphatech Ag offers. Each has specific benefits and use cases, depending on environmental conditions and target pests.

Here are some common presentations:



## Soft Bait

A Liphatech innovation, soft baits deliver efficacy paired with easy placement. No need to mix meal bait and pellets.

Soft bait pouches can be secured like conventional blocks in bait stations. In areas where non-targets are not present or cannot reach, pouches can be placed directly in tight, hard-to-reach places where rodents live and blocks won’t fit. Additionally, soft bait formulations can be used in hot or cold environments.



## Mini Blocks

Mini blocks are designed with gnawing edges and a center hole for securing. Renegade mini blocks contain preservatives as mold inhibitors, making this presentation a great option for high-moisture environments.

Secure mini blocks on vertical or horizontal rods in Aegis® or other bait stations. Where non-targets are not present, these baits can be secured with nails or wire through the center hole.



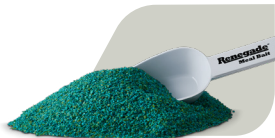
## Bulk Pellets

The pellet shape mimics seeds in rodents’ environment. Paraffinized pellets are weather- and moisture-resistant and can be useful for burrow baiting. Indoors, place open trays of pellets between rodent nests and food/water supplies in areas inaccessible to non-targets. For burrows, apply with a long-handled spoon or scoop.



## Pellets Place Packs

For quick and easy bait placement, BootHill 1.5 ounce pellets place packs are convenient for hard-to-reach baiting locations. Their paraffinized formula works well where moisture is a concern, with a special film to keep pellets fresh until consumed by rodents.



## Meal Bait

Meal baits are best used where non-target animals cannot access bait. They are applied with a scoop into burrows or other hard-to-reach places. Liphatech Ag’s Renegade meal baits contain preservatives as mold inhibitors.

## DO YOU HAVE A PREFERRED METHOD OF BAIT PRESENTATION?

Liphatech Ag offers a complete, year-round rotation in both soft bait and mini blocks.

### Recommended Annual Soft Bait Rotation:

FastDraw®, Revolver®, Cannon II®, DoubleTap®

### Recommended Annual Mini Block Rotation:

Hombre®, BootHill®, Cannon II®, DoubleTap®, Renegade™



# DIFETHIALONE

A LIPHATECH AG EXCLUSIVE ACTIVE INGREDIENT

Second-generation anticoagulant; vitamin K1 antidote

Formulated at 25 ppm; rodents may consume a lethal dose in a single night’s feeding

Takes 4-5 days for rodents to expire after they have consumed a lethal dose

## FASTDRAW® SOFT BAIT



Formulated with grains and fats molded into a dough matrix. The texture presents a food choice for rodents, allowing users to gain control of infestations.

- Maintains integrity in hot environments
- 10 grams (0.35 ounces) soft bait pouches
- Available in 8 pound pails (approx. 364 placements), 16 pound pails (approx. 726 placements)
- Secure like conventional blocks in bait stations or placed directly in tight, hard-to-reach places where rodents live and blocks won’t fit

## HOMBRE®



Multiple formulations to fit your operation.

- 20 gram mini blocks have multiple edges to encourage feeding
  - o Available in 20 pound pails (approx. 454 blocks) and 10 pound pails (approx. 227 blocks)
- 20 pound bulk pellet pails and 200 count 25 gram place pack pails are great for managing rodents where pellet hoarding is not a concern

## RENEGADE™



The only meal bait available with the active ingredient difethialone.

- Meal bait is labeled for use in Norway rat burrows
- Contains preservatives as mold inhibitors
- Available in 25 pound pails and 50 pound cases; scoop included for ease of use and measured dosing; mini blocks are available in 20 pound pails (approx. 454 blocks)
- Use in areas where non-target animals cannot access bait
- Blue marker dye can be seen in droppings
- 20 gram mini blocks are an an ideal maintenance rodenticide where crumbs and scatter are a concern
- Place in areas with mold potential and/or humid, moist baiting conditions

# BROMADIOLONE

AN ACTIVE INGREDIENT INVENTED BY LIPHATECH AG

Second-generation anticoagulant; vitamin K1 antidote

Formulated at 50 ppm; rodents may consume a lethal dose in a single night’s feeding

Kills rodents starting 4-5 days after they have consumed a lethal dose

## REVOLVER® SOFT BAIT



A great soft bait rotation partner when switching from FastDraw

- 12 gram (0.42 ounce) soft bait pouches
- Effective component of Liphatech Ag’s complete soft bait rotation
- Available in 8 pound pails (approx. 302 placements), 16 pound pails (approx. 604 placements)
- Maintains integrity in hot environments
- Use in bait stations or to target the tight placements where rodents live

## BOOTHILL®



Multiple presentations to fit any biosecurity program

- Available in mini blocks, bulk paraffinized pellets and pellet place packs.
- 1 ounce mini blocks can be easily secured in tamper-resistant bait stations. Available in 10 pound pails (approx. 160 placements) and 20 pound pails (approx. 320 placements)
- Bulk paraffinized pellets and 1.5 ounce pellet place packs resist moisture and are your best choice for baiting Norway rat burrows
- Pellet place packs are available in 90-count and 150-count pails, bulk pellets are available in 20-pound pails.



# CHLOROPHACINONE

AN ACTIVE INGREDIENT INVENTED BY LIPHATECH AG

First-generation anticoagulant

Vitamin K1 antidote

DOUBLETAP®



The first and only chlorophacinone soft bait in the animal health and biosecurity marketplace.

- Multiple-feed anticoagulant, formulated at 50 ppm
- Bait is packaged in conveniently sized 28 grams soft bait pouch
- Soft bait maintains its integrity in hot environments
- Bait may be removed from pouch and placed in a feeding device
- Soft bait is available in 4 pound individual bags (approx. 64 placements) and 16 pound pails (approx. 256 placements)
- 1 ounce mini blocks can be easily secured in tamper-resistant bait stations
- Mini blocks have multiple edges to encourage feeding
- Mini blocks are available in 20 pound pails (approx. 320 placements)

# BROMETHALIN

Acute active ingredient – bromethalin is a neurotoxin that can provide a break in a purely anticoagulant rotation

Formulated at 100 ppm; rodents may take 48 hours or more to die after they have consumed a lethal dose

CANNON II®



Simple, effective control without the need to mix meal bait and pellets.

- Use during de-population and clean-out periods
- Can be used in hot or cold environments
- Easy-to-use 8 gram soft bait pouches
- Soft bait is available in convenient 4 pound bags (approx. 227 placements)
- Effective when fighting heavy infestations
- Use during de-population and clean-out periods
- Helps to prevent anticoagulant resistance by providing a break from anticoagulant baits
- 0.5 ounce mini blocks are designed with rodent gnawing edges and a center hole for securing on vertical or horizontal rods
- Mini blocks are available in 4 pound pails (approx. 128 placements)



Bait stations are an effective tool to extend the bait life, limit non-target-animal exposure and prevent the dislocation of bait. Liphatech Ag's Aegis® bait stations carry the same level of innovation and quality as our rodenticide portfolio.

## The benefits of Aegis® bait stations

Reduces replacement costs; strong rotating hinges secure lid and operate down to -20 degrees F for a long service life

Fast to service, minimizing labor costs

See-through design keeps rodents on their natural path, causing them to enter and feed

Versatile stations that can be placed vertically or horizontally

Tamper-resistant keyed models prevent access by people and non-target pets and comply with FDA standards

Drain holes keep bait drier and more palatable

### Aegis-RP

Compact size

Mount vertically or horizontally

Opens away from the wall

See-through design

Accommodates rodent traps

6 stations per case

### Aegis-RP Anchor

Pre-assembled, saving labor costs

Building-grade 12.5 lb. concrete base prevents dislocation

108 stations per bulk pallet

### Aegis Rat

Available in black, white (cool box) or black with a clear lid

Double-tunnel design for improved bait consumption

6 stations per case

### Aegis Mouse

All black or with clear lid

Holds twice the capacity of most mouse stations

Designed to hold soft bait

12 stations per case

### Aegis Risk Reducer

Plugs Aegis-RP drain holes to reduce crumb out

Removable grate to easily clean the catch basin

Can be used in vertically or horizontally placed Aegis-RP's

# DON'T GO AT IT ALONE

We're here to help. Whether you need an extra hand with an inspection or guidance in developing your own rodent management program, our Technical Support Team will pick up the phone (and a real human will answer).

## WALKING THE WALK

Our Technical Support Team has spent decades working around live poultry and swine production. We provide on-site inspections at farms, feed mills, and other live production facilities where rodent problems persist. In addition to these facility inspections, we also offer technical classroom and field training for employees.

## FOR THE DIY CROWD

Liphatech Ag is committed to helping customers through education and coaching. Tailgate Talks is your go-to source for on-demand educational videos. These short clips give in-depth answers to specific rodent management questions you won't find on Google, touching on the questions and problems we receive most from our customers.



### SCAN THIS QR CODE

to connect with our team to establish a step-by-step rodent control plan.



**CONTACT INFORMATION**  
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