Racumin® Paste

The effective, easy to apply rat bait with the first generation anticoagulant coumatetralyl.

Racumin Paste is an anti-coagulant rodenticide for the control of rats in agricultural plantations and livestock farms.

THIS PRODUCT IS NOT RECOMMENDED IF BARN OWLS ARE USED TO CONTROL RATS.

DIRECTIONS FOR USE:

Place	Baiting Procedures
Oil Palm and Cocoa Plantation	Place a sachet of Racumin Paste at the base of each plant. At normal infestation, use 1.0 - 1.3 kg Racumin Paste per hectare.
Paddy Fields	• Place 5 - 10 sachets of Racumin Paste in a bait station at the distance of 20 - 50m and near to their runaways. • Place 5 - 10 sachets of Racumin Paste in rat burrows. At normal infestation, use 0.8 - 1.0 kg of Racumin Paste per hectare.
Livestock Farm	Place 5 - 10 sachets of Racumin Paste in bait station near rat burrows and near to their runways (along edges of building and postsas well as places marked by rat footprints, faeces and urines.)
Garbage Disposal Area	

* Bait station: Bamboo and PVC pipe of the size 30cm length and 8cm diameter can be used as bait station. Keep away bait station with poison from children and animals.

Baiting Guides: For effective control, inspect treatment site on alternate days. Replace baits which have been consumed. Continue baiting until consumption of baits falls below 20% of baits placed.

New palatable formulation
Racumin Paste is a new bait formulation for the control of rats.

Selected vegetable fat and palatable bait materials are combined in Racumin Paste in a way that makes the paste exceptionally attractive to rats.

Due to it's good palatability, Racumin Paste is consumed by the rat at very high amounts. Rats can take up a lethal dose of Coumatetralyl in one day. The rats virtually feed themselves to death.

Rats die three to eight days after consuming a lethal dose as with all the other anticoagulants in the market.

Convenient packaging
Racumin Paste is available in 10 g sachet, making it easily dispensable. The sachet material is biodegradable. That saves your time - and time is money!

The Operator needs to ensure that sufficient quantities of bait are made available for the entire rat population.

Easy to apply and handle
Racumin Paste can be used in many areas. Because of the high fat content, the paste remains attractive for a long time. That makes the paste superior to all other baits especially in challenging environmental condition.

Bayer Environmental Science
A Business Operation of Bayer CropScience

Bayer Co. (Malaysia) Sdn Bhd (7563 M)
T1-14, Jaya 33, No. 3, Jalan Semangat, Seksyen 13,
46200 Petaling Jaya, Selangor, Malaysia.
Tel: 03-6209 3088 Fax: 03-7960 5717
Email: es.malaysia@bayercropscience.com

For more information please contact:

READ THE PRODUCT LABEL BEFORE USE

THIS IS A PESTICIDE ADVERTISEMENT

TO BE HANDLED BY TRAINED PERSONNEL ONLY.

The effective, easy to apply rat bait with the first generation anticoagulant coumatetralyl.

Racumin® Paste

Bayer Environmental Science
A Business Operation of Bayer CropScience

Racumin® Paste

The effective, easy to apply rat bait with the first generation anticoagulant coumatetralyl.

By following humans wherever they have settled, rats have been able to penetrate into regions of the earth where they do not naturally occur Adaptability and intelligence enable them to conquer a variety of habitats, even those with extreme conditions.

To beat this menace you need to know something about the rat's biology, habits and behaviour.

The most important species

Characteristic	Ricefield Rat *(Rattus argentiventer)*	Malaysia Wood Rat *(Rattus tiomanicus)*	Norway Rat *(Rattus norvegicus)*	Roof Rat *(Rattus rattus)*
Weight	90 - 200 g	80 - 260 g	150 - 600 g	80 - 300 g
Head and body	Nose pointed, slender body, 13 - 19 cm	Nose pointed, slender body, 12 - 20 cm	Nose blunt, heavy stocky body, 18 - 25 cm	Nose pointed, slender body, 16 - 21 cm
Tail	Shorter than head body, hairless, 13 - 19 cm	Tail uniformly dark, longer than head & body, hairless, 12 - 20 cm	Shorter than head plus body with short, stiff hairs, 16 - 21 cm	Longer than head plus body hairless, 19 - 25 cm
Ears	Large, thin and hairless, stand out from fur.	Large, thin and hairless.	Small, close-set, half buried in fur.	Large, thin and hairless, stand out from fur.
Fur	Brownish to yellow and black hairs intermixed among black, belly silvery grey often with a darker longitudinal streak in the midline.	Brownish-grey to blackish on midline, belly pure white or dull white.	Brownish-grey on black, greyish on belly.	Brownish-grey to blackish on back, belly varies, white, grey to black.
Habits	Burrows, lives out door and confined to grassland.	Lives outdoors, agile climber, mainly lives above ground on trees.	Burrows, swim and dives, lives outdoors in rubbish dumps and sewers and indoors in cellars and drains.	Agile climber, often lives above ground on trees, in attics and ceilings.

Feed loss
Rats and mice are tough competitors for feed. A small rat population of about 100 can bequite easily supported by a farm. One rat eats approximately 10% of its body weight in feed each day. Assuming an average weight of 250 g per rat, this equals some 2,500 g of feed lost every day - only considering such a small population.

A 250 g rat
10% of b.w.: 25 g
100 x 25 g = 2,500 g per day!

And more: 2,500 g lost feed per day at a broiler farm (7 flocks x 40 days) with a feed conversion rate of approximately 1:1.8 will lose around 400 kg of broiler meat per year.

And more: A pig farm will lose around 200 kg of meat annually, or a total loss of at least two fully-grown hogs!

And more: It's important to note that at least three times more feed is contaminated by fur, droppings, saliva, urine and blood.

Rodents also damage feed bags and carry food away, taking a bite out of your profits!

Dangerous disease carrier
Rats spread a number of diseases injurious to man and of public health significance including:

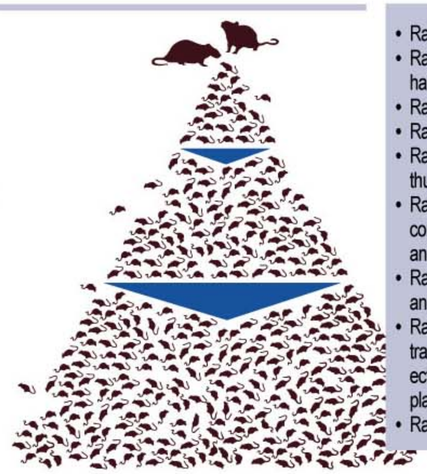
Food poisoning from Salmonella infection, Weil's disease (leptospiral jaundice), Bubonic plague, Murine typhus and rat bite fever.

Structural damage
Rats, known for their strong front teeth, can also gnaw through wood, insulation, wire and soft concrete.

They can destroy buildings, increasing your maintenance costs. By gnawing on electrical devices, they could even start a fire and destroy your house or hotel!

RODENT FACTS
In general: Rats

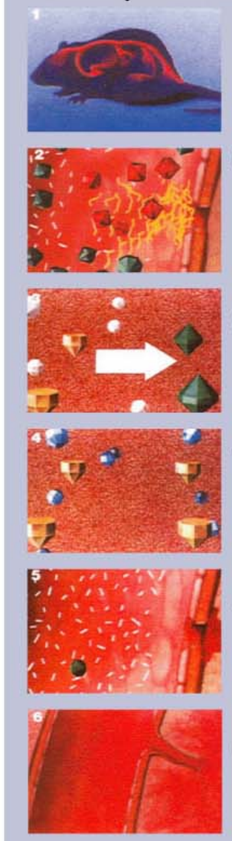
- Are choosy and won't take mouldy food.
- Have a highly developed sense of smell and taste and will intially reject anything unfamilar.
- Can develop bait shyness - once a negative experience is communicated to the other pack members, they will avoid the bait.
- Know their territory very well and know where they can find food and water.
- Travel along a definite route, leaving well defined trails or runways.
- Often travel along walls, boxes or sacks but avoid open spaces.
- Tend to eat at familiar sites and need 15 - 30 ml water daily.
- Multiply rapidly.



- Rats eat foodstuffs.
- Rats contaminate food with droppings, urine, hairs and germs.
- Rats destroy packaging materials.
- Rats gnaw wood, pipes, electrical cables, etc.
- Rats burrow in dams, embankments, etc., thus destroying installations and buildings.
- Rats worry housed livestock. The consequences are reductions in milk yield and egg production and weight loss.
- Rats transmit diseases directly to humans and animals.
- Rats are responsible for the indirect transmission of diseases due to rat-specific ectoparasites (e. g., transmission of bubonic plague by the tropical rat flea).
- Rats cause bite wounds and other injuries.

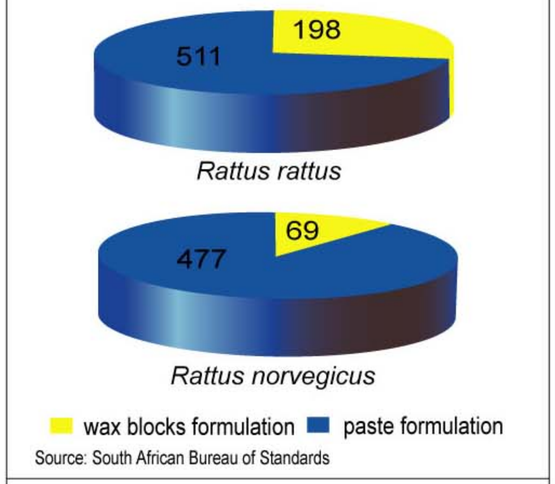
Racumin Paste is an effective, easy to apply rat bait from Bayer with first generation anticoagulant coumatetralyl.

Racumin prevents the coagulation of blood in rats



1. As a protection against blood loss following injuries to the vascular system, blood possesses the ability to coagulate.
2. In the course of a biochemical chain re-action, prothrombin (green), which is present in the blood is converted into thrombin (red). Thrombin causes the interlacing of dissolved fibrinogen into more firmly structured fibrin (yellow). The wound is closed.
3. Prothrombin (green) is produced in the liver from a chemical precursor (brown) (arrow). Vitamin K_1 (white) is indirectly involved in this process.
4. The active ingredient in Racumin (blue) is similar in structure to vitamin K_1. It is therefore capable of displacing the latter from its site of action. As a result, prothrombin synthesis is interrupted.
5. The prothrombin concentration (green) in the blood declines. Fibrinogen can no longer be converted into fibrin. The blood has lost its ability to coagulate.
6. In addition, capillary vessel walls become fragile. The rat dies from anaemia.

The palatability of wax block and paste formulations



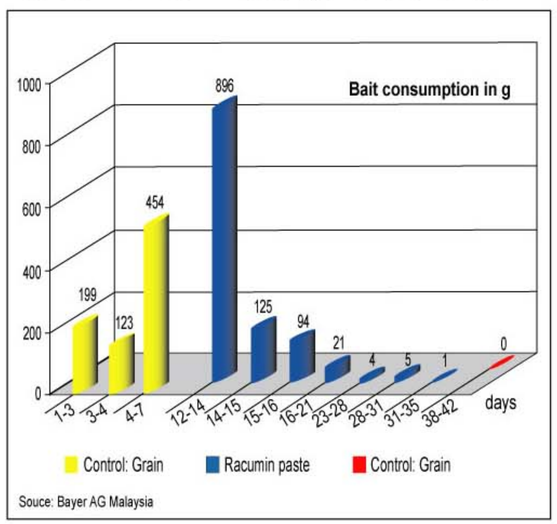
Source: South African Bureau of Standards

Rats groups (8 - 10 rats) 4-day choice trial

Consumed bait		Consumed Paste
Wheat	36%	64%
Wax block	19%	81%
Block	1%	99%

The Paste taste!

Field trial with Racumin Paste against Rats in a feed mill



Souce: Bayer AG Malaysia

Customer needs:	Racumin Paste:
effective and reliable	✓
suitable for outdoor use	✓
high and long-lasting palatability	✓
easy application, easy handling	✓
suitable application, even in damp environments	✓
biodegradability	✓
long-term stability under all kinds of conditions	✓
long-term activity under all kinds of conditions	✓
no bait shyness	✓