### **RUPROMIN MINERALS**

#### **RUPROMIN IMMUNOBASE**

This product improves the immune status and is an economical alternative for ImmunoPlus. It also contains the Provimi antioxidant package\*. Dosage: 180 g/cow/day

### **RUPROMIN HOOFGUARD**

A product with a special formulation to the development of the calves and prevent foot problems caused by nutritional deficiencies. Many foot problems are caused by sub-acute rumen acidosis (SARA). Hoofguard contains buffering agents to prevent SARA. The combination of biotine and

organic zinc improves claw and hoof quality. Hoofguard also contains the Provimi antioxidant package\* for a better immune status.

Dosage: 200 g/cow/day

### **RUPROMIN JUNIOR**

A mineral supplement to complete young stock diets. The combination of zinc, copper-chelates and biotine supports improves foot health. Dosage: 70-100 g/animal/day

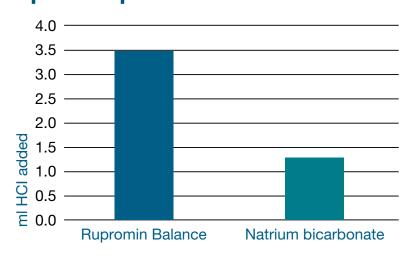
### OTHER PRODUCTS FOR DRY AND LACTATING COWS

### LIFT (POWDER)

To support the liver metabolism in the close up period and early lactation. A negative energy balance causes fatty liver syndrome and ketosis, decreased production rates, and problems with fertility and health. The liver stimulant components in LiFT increase the capacity of the liver and therefore helps prevent fatty liver. Dosage:

Close up period: 50 g/cow/day Start lactation: 100 g/cow/day

### Figure 1. Acid required for decrease from pH 6 to pH 5



### **RUPROMIN BALANCE (POWDER)**

This is a broad spectrum buffering product. The combination of different buffering agents guarantees a long term and strong activity, specifically in the range between pH 5.5 and 6.0. In this pH range, Rupromin Balance is more effective than sodium bicarbonate. (see Figure 1). Dosage: 100-200 g/cow/day

### \*PROVIMI ANTIOXIDANT **PACKAGE**

Rupromin minerals contain Proviox 50 and Provimi's bypass selenium: SelTek. The addition of Proviox 50 ensures a better antioxidant effect by supporting the action of vitamin E. SelTek is better protected from degradation in the rumen. Therefore, although the same levels of selenium are used it has a better antioxidant activity. The combination of vitamin E, Proviox 50 and SelTek offers a perfect antioxidant combination and improves the health status of the cow.



Provimi™

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**RUPROMIN** 

## Mineral range

In many cases, the uptake of vitamins and minerals from the base ration is insufficient. Profitable milk production can only be achieved if concentrates and roughages are supplemented with the vitamins and minerals that are lacking from this base ration.

Shortages of important trace minerals and vitamins are often the main cause of fertility problems and udder and hoof problems. The Rupromin mineral range offers the perfect solution for every situation.

Each Rupromin product consists of a complete package of vitamins and minerals, combined in one bag. The range of products offers the necessary supplementation for the ration in order to support animal health. Most Rupromin products are in the form of microgranulates. The Rupromin microgranulates are dust-free minerals so they guarantee good intakes, simple dosing, limited losses and even mixing.

### CHARACTERISTICS

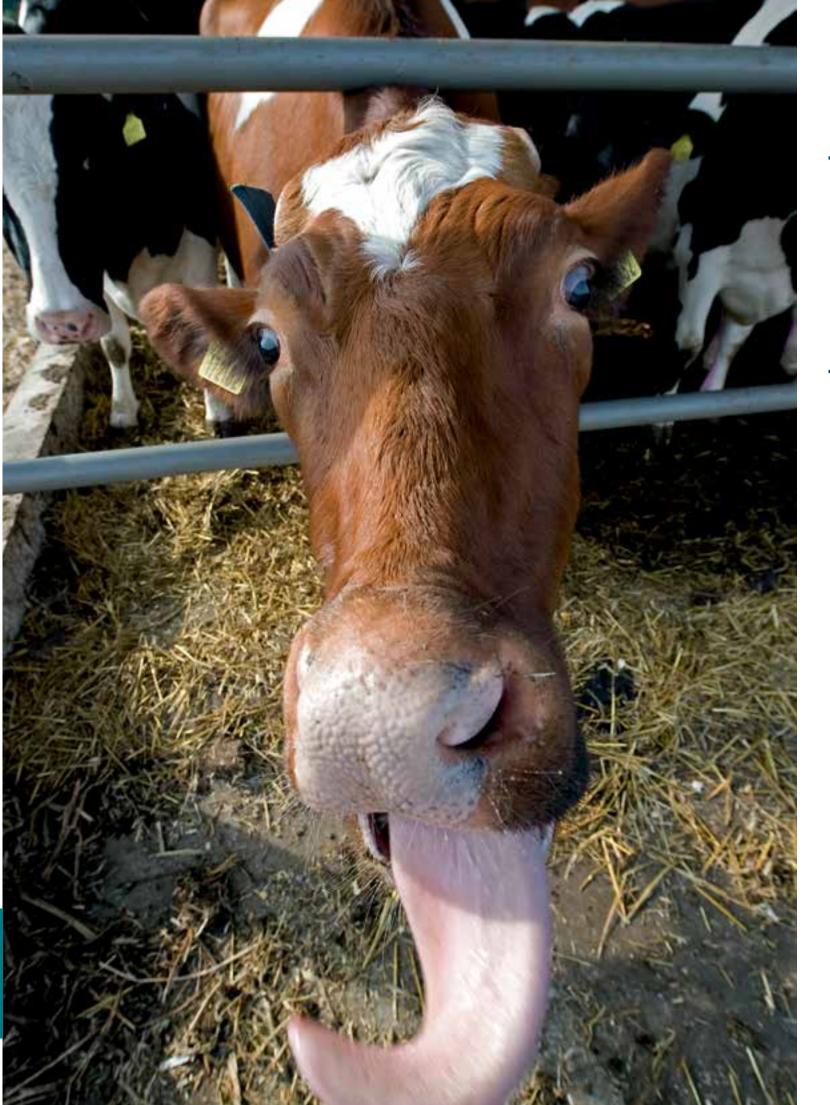
Combination of macro-minerals, trace-minerals and vitamins in one bag

- Contains a perfect combination of antioxidants\*
- Small particles, but no powder
- Glycerin as dust-binder
- Contains anis aroma

#### RENEEITS

- Various compositions: a solution for each situation
- Consistent palatability
- Fresh odour
- No dust
- Homogenous mixing Rupromin minerals

"The Rupromin microgranulates are dust-free minerals so they guarantee good intakes, simple dosing, limited losses and even mixing."



### **Table 1. Rupromin products on farm**

	REARING	DRY PERIOD		LACTATION				
				POINTS OF ATTENTION, DEPENDING ON FARM SITUATION				
Option		Far off (day -60 - day -14)	Close up (day -14 - day 0)	Maintenance 92.9c	Safety	Fertility	Udder health	Claws
1	Junior	Dry Period	Dry Period Plus	Basic	USA	Fertil Plus	ImmunoPlus	Hoofguard
2		Dry Period		Dasic	Fertil	ImmunoBase		riooiguard

Table 1 shows how to use Rupromin minerals. Option 1 gives solutions for specific problems. If there are no specific fertility and udder health issues, then option 2 offers an attractive alternative.

# Table 2. Rupromin minerals combined with LiFT and/or Rupromin Balance in dry period and lactation

	DRY P	ERIOD	LACTATION			
	Far off	Close up	High milk production	Avarage milk production	Low milk production	
Days in lactation:	-60	-14	0	100	300	
Rupromin product:			Rupromin Minerals choice, see Table 1			
Additional product:			LiFT			
			Rupromin Balance			

Table 2 explains how to use the Provimi products LiFT and Rupromin Balance next to the Rupromin mineral products mentioned in Table 1. LiFT supports the liver function and Rupromin Balance protects against rumen acidosis.

### **RUPROMIN MINERALS**

### **RUPROMIN DRY PERIOD**

A complete mineral mixture for dry cows. Rupromin Dry Period contains high levels of copper, selenium, vitamin E and magnesium and therefore supports udder and uterus health in the period around calving and prevents milk fever and retained placenta.

Dosage: 100-200 g/cow/day

## RUPROMIN DRY PERIOD PLUS (POWDER)

This is a special mineral mixture for the last 14 days of the dry period ('Close up') and it is recommended for use when the incidence of milk fever is high. Rupromin Dry Period contains high levels of copper, selenium, vitamin E and magnesium and also contains anionic salts to simulate calcium metabolism.

Dosage: 200 g/cow/day

### RUPROMIN BASIC

This is an economical mix of minerals to ensure cows get the recommended levels. It may be used for cows that are not pushed to the limit.

Dosage: 100 g/cow/day

### **RUPROMIN FERTIL**

A special mineral mixture to prevent fertility problems. It also provides a safe supply of trace-minerals and vitamins.

Dosage: 100-150 g/cow/day

#### **RUPROMIN USA**

The minerals mixture to supplement diets with low levels of trace-elements and vitamins. Due to the high magnesium content very suitable for potassium-rich rations. The high level of zinc has a positive effect on udder and claw/hoof health.

Dosage: 100-150 g/cow/day

### **RUPROMIN FERTIL PLUS**

If fertility needs extra attention, this product is the solution. Contains β-carotene, organic manganese and resistant niacine to improve fertility. Dosage: 150-200 g/cow/day

### **RUPROMIN IMMUNOPLUS**

This product can be used on cows with low health status or udder health problems. It also has positive effects when iron levels are high, or when other antagonists are present in forages or drinking water. The use of organic trace-elements and the Provimi antioxidant package considerably improves the ability of the cow to fight infections.

Dosage: 180 g/cow/day