

Technical Information sheet

EM® Agriton System.

Sustainable agriculture for a profitable farm

Vulkamin®

Technical specification.

Vulkamin®

Cubicle bedding powder. In both cubicles and loose housing systems the beneficial properties of Vulkamin are quickly noticed. The naturally antiseptic bedding provides valuable nutrients for the soil. Contributing to the sustainable farming regime.

From the Kaiserstuhl, the famous winegrowing region of volcanic origin, situated in the south-west of Germany, comes one of the most effective and most healthy preparations for soil improvement: the prehistoric rock meal

Vulkamin®

Particular characteristics:

- Natural richness in nutrients and trace elements
- Extraordinarily high content of zeolites and soluble silicic acid
- Fast drying capacity
- Disinfects naturally preventing cross contamination and infection (mastitis)
- Improves and maintains the hygiene of the cubicles.
- Kill time less than 15 minutes
- The pH rises by 2 points within 10 minutes
- soft texture, non abrasive for teats
- Reduces the loss of nitrogen
- Reduction of flies

What is Vulkamin® Prehistoric Rock Meal ?

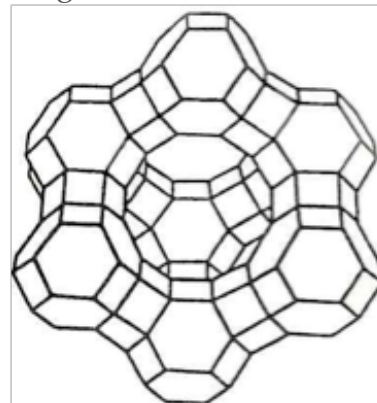
Consists of finely ground phonolite, a silicate rock of volcanic origin which is alkali-rich. Naturally rich in nutrients, trace elements and soluble silicic acids and its mineralogical peculiarity is that it contains zeolites*, which are special hollow part minerals.

Thanks to the very finely ground elements

Vulkamin has large active surfaces and is thus effective even in small quantities.

Used as a bedding powder the benefits of Vulkamin go far further in enriching the soil with nutrients, trace elements and other useful elements in a well balanced proportion which is fundamental to healthy balanced

plant nutrition. Contributing to the farm sustainability by reducing fertiliser costs. It balances the "loss of calcium" by its alkaline effect and stabilises the soil at a favourable Ph level - an important condition for good availability of nutrients, intact soil life and a good soil structure. It is rich in soluble silicic acid which is directly absorbable for plants and strengthens their resistance to fungal disease and other harmful organisms - the use of chemical-synthetic fungicides can thus be reduced.



Activates available reserves of phosphates in the soil by adding silicic acid - large unused deposits of phosphates can be better used.

Increases the quantity of available sodium, which has the same regulating effect as potassium in the water balance of plants and activation of enzymes - the quantity of potassium needed by plants will thus be reduced and the yield of certain useful plants (such as cabbage, barley) will be increased. Potassium also helps to give grazing animals a healthy diet.

Is dissolved gradually, providing nutrients and trace elements evenly over a long period of time - the result is a mild effect and a long-lasting improvement of available nutritive elements in the soil. Erosion is reduced to a minimum.

Improves conditions for micro-organisms living in the soil, especially for nitrogen-binding bacteria.

Using VULKAMIN is the best way of producing fertile soils over a long period of time.

**Zeolites - Minerals with very special qualities*

From the mineralogical point of view VULKAMIN has a very high content of zeolites - zeolites are hollow part minerals with astonishing qualities:

Zeolites are able to store nutrients and to supply them later on. They help to reduce loss of nutrients by erosion.

Zeolites react as catalysts: they accelerate and activate natural processes and reactions.

Zeolites can also be used in the technical sector, for example in drinking water purification systems.

Calculation of nitrogen loss.

For every kilo of lime used (with 96% calcium carbonate), a loss of 180 grams ammonium can be expected.

The finer the lime the greater the loss.

This totals a loss of 180 kg ammonium nitrogen for every 1000 kg (big bag) of lime used. This calculation is the *worst* case scenario but at best a loss of half that amount, 90 kg will occur. With nitrogen costing 1.40 GBP a kilo the loss is $90 \times 1.40 = 126.00$ GBP and may be as much as 252.00 GBP when the whole 180 kg is lost. With the price of nitrogen ever increasing the slurry is a most valuable product for the dairy farmer.

Taking this into consideration lime is more expensive than we think due to the reactions it causes leading to loss of nitrogen.

High yeild crops depend on the soil.

Soil demineralisation can cause bad cropping and can be prevented by feeding the soil with deficient

minerals and spoor elements. In potato cultivation a deficiency in boron can cause scab. Carrots are known to split when the soil lacks boron. A deficiency in potassium and titanium can cause infertility in cows. Virus infections are more likely when the soil is deficient in Zinc. In the formation of amino acids Zinc is essential. A lack of cobalt can also cause disease in cows.

It is a costly and complicated task to have the soil analysed at regular intervals. Nature provides all mineral spoor elements the soil needs by application of Vulcamin, Ostrea Crushed Sea shells and Edasil clay minerals. Application on pasture: 500kg per hectare



Vulkamin® Can be applied throughout the year. It consists of finely ground silicate rock of volcanic origin. Vulcamin is naturally rich in nutrients, trace elements and soluble silicic acids and its mineralogical peculiarity gives it natural antiseptic qualities required to help prevent mastitis.

Available in big-bags 1000 kg & 25 kg bags

Working together to share knowledge and promote sustainable farming

For more information contact