

Economics

Reported field benefits

	Biotin mg per head per day	Cost per cow per day €	Return on investment
Hoof health	20	0.03	10 : 1
Hoof health and milk production	20	0.03	20 : 1

A substantial return on investment, even in well managed herds

Feeding

Recommendations



Guidelines for dairy cows and heifers

Biotin (mg per head per day)	ROVIMIX® Biotin (g per head per year)
20	365

How much ROVIMIX® Biotin to add to dairy concentrates or minerals to achieve the target amount of 20 mg biotin per cow per day

	Daily feed rate per cow	Biotin concentration mg per kg	ROVIMIX® Biotin per tonne
Concentrate			
Dry period	2 kg	10	500 g
Mid/Late lactation	6 kg	3.3	167 g
Early lactation	10 kg	2	100 g
Mineral			
Mineral	100 g	200	10 kg
Mineral	200 g	100	5 kg



Why DSM Nutritional Products?

DSM Nutritional Products is a pioneer in the synthesis and production of vitamins. Today we are the leading supplier of vitamins for both animal and human nutrition. All our products are manufactured under strict control and in modern facilities that exceed the requirements for environmentally safe production.

Our 'Feed for Food' focus means that quality, safety and traceability are an important feature of our products. With our innovation programme, we are able to deliver outstanding nutritional solutions to meet customer needs.



Why ROVIMIX® Biotin?

Studies at numerous research institutes show that ROVIMIX® Biotin improves hoof health and milk production in high yielding dairy cows. Combined with superior formulation technology, ROVIMIX® Biotin is the product of choice for effective biotin supplementation for all species.

Designed by: Beerens Kooijman & van Kasteren, Den Dungen, The Netherlands



ROVIMIX® Biotin

Better hoof health and more milk too

a DSM Product



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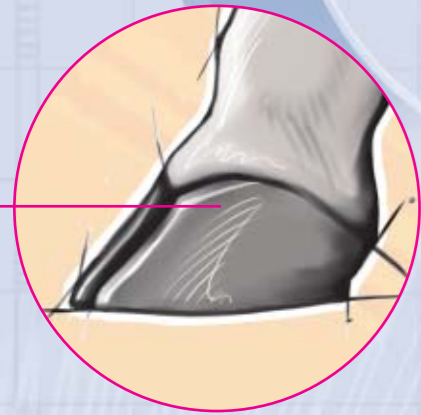
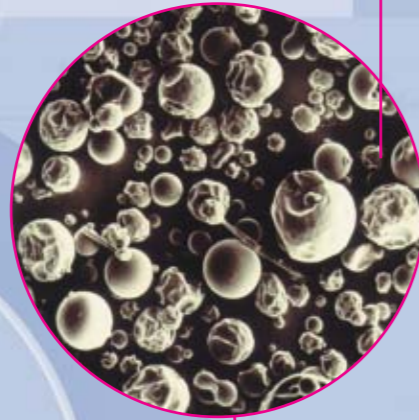
DSM Nutritional Products

Unlimited. **DSM**

Advantages of ROVIMIX® Biotin



- Manufactured using advanced technology for superior product quality
- Scientifically proven benefit for improved hoof health and milk yield



Hoof

- Optimises hoof horn quality
- Improves hoof health
- Improves animal welfare



Milk

- Improves milk yield
- Improves protein yield

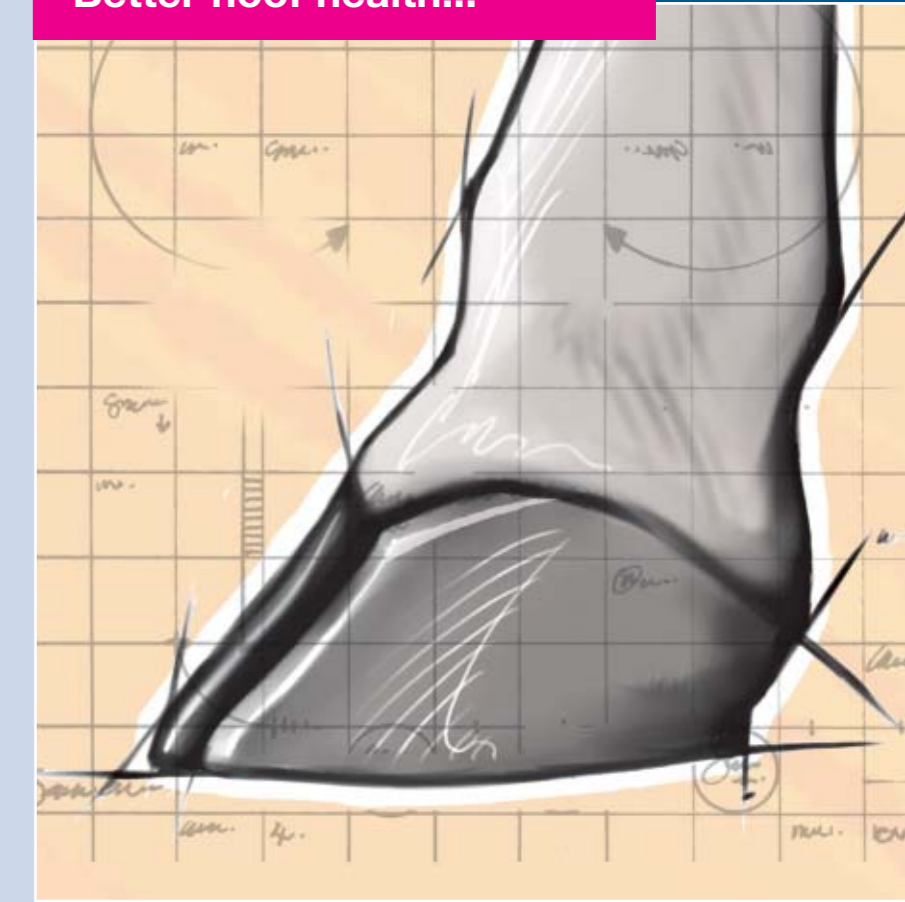
Problems

- Lameness
- Laminitis
- White line disease
- Sole ulcer
- Digital dermatitis
- Fatty liver
- Milk yield below genetic potential

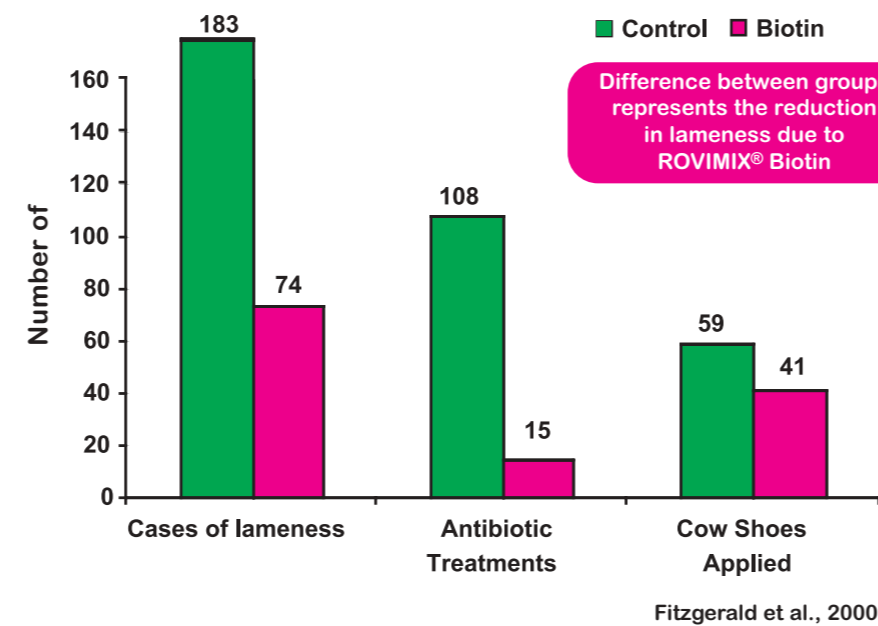
Product Benefits

- Optimises horn quality and strength
- Promotes keratin synthesis
- Optimises the composition of intercellular cement
- Reduces white line disease lameness
- Increases propionate utilisation
- Increases glucose synthesis
- Increases milk yield and protein yield

Better hoof health...

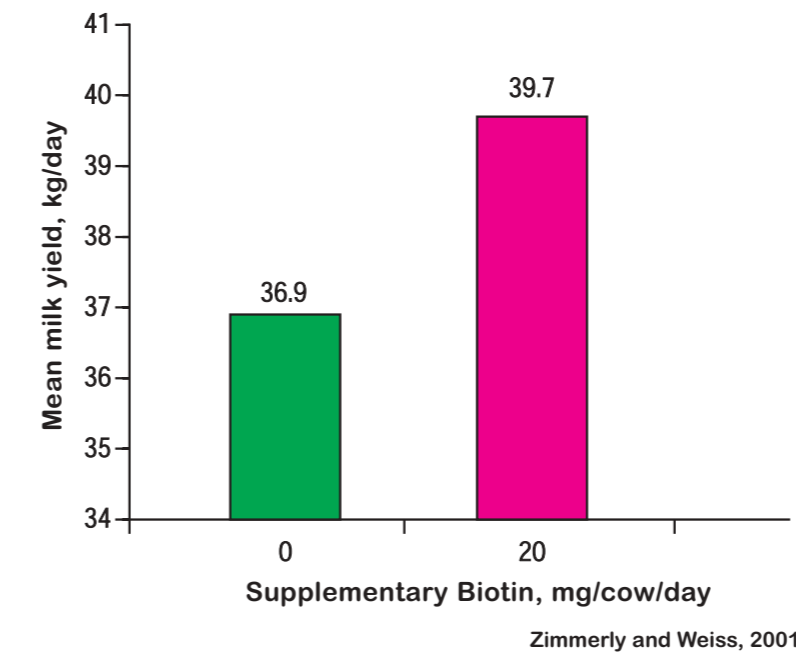


Field trial results with ROVIMIX® Biotin



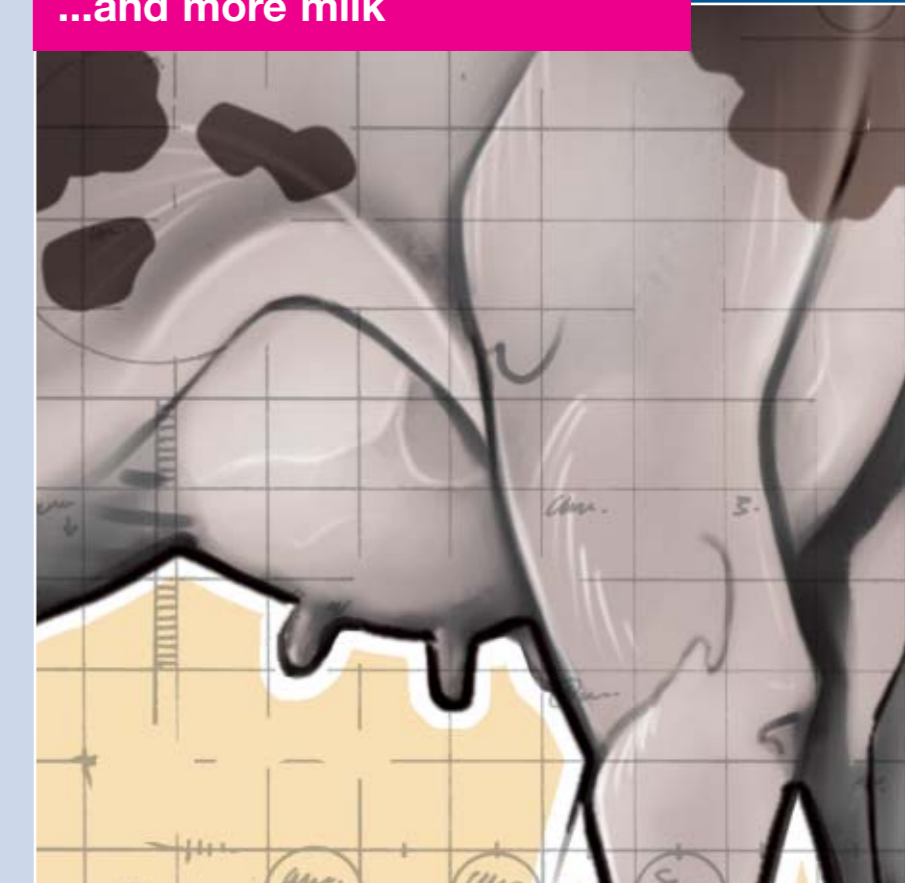
Recent field trials in Europe, Australia and the USA involving several thousand cows confirm scientific studies that ROVIMIX® Biotin supplementation:

- improved horn quality and locomotion scores
- reduced the incidence of clinical lameness
- resulted in fewer antibiotic and other treatments



Results from a series of research trials in Europe and the USA show that ROVIMIX® Biotin supplementation increased milk production in high yielding cows by about 2 kg per cow per day.

...and more milk



ROVIMIX® Biotin improves animal welfare and herd profitability