

Healthy Hooves.

Putting Science into Footbathing.

The use of chemicals in footbaths has not changed for 40 years and with the advent of digital dermatitis it has never been so important. Many new types of chemical have been tried with poor success and there is only one consistently effective compound which has consistently been shown to be effective in minimising digital dermatitis and to help horn health – Copper Sulphate.

Are all sources of copper sulphate the same?

As you shop around for the best price of copper sulphate did you know that there are two grades? One grade of copper sulphate contains 20% and the other 25% copper; you should be using 25% (pentahydrate).

How much copper sulphate do you put in a footbath?

A typical footbath should be 3 metres by 1 metre and 10cm deep and this would contain 300 litres of water. To get a 5% solution of copper sulphate you need 15kg of copper sulphate (25%), but many farms need an 8% solution to control digital dermatitis i.e. 24kg Copper Sulphate.

How long does a copper sulphate bath last?

One passage of up to 300 cows for a 300 litre footbath, if you have a 150 cow herd and use the solution for 2 milkings its effect will be reduced at the second milking due to the effect of manure in the footbath.

How long before the footbath is used should I make up the solution?

To get the maximum release of copper ions into the footbath make up the solution at least 4 – 5 hours before use.

Why do I have to use so much copper sulphate in the footbath?

Copper sulphate is not very soluble so about 60% is thrown away as a precipitate (bluestone) in the bottom of the bath. In fact instead of 5 - 8% some farms have used 10% - 12.5% solutions because of this problem.

What about the disposal of all this copper?

This is a major issue; a herd of 150 cows with a twice weekly 5% treatment regime will have to dispose of 1.5 metric tonnes of copper sulphate a year through the slurry system.

What is the environmental impact on my farm?

This is a huge issue with copper levels building up to unacceptable levels on fields where slurry is spread – remember we are dealing with a heavy metal which does not degrade. There are implications for the food chain which have yet to be addressed by the Government.

What about Formalin footbath?

In the 21st century this product should not be used any longer, the human health risks are too high:

- Cancer
- Respiratory disease.
- Allergic reactions
- Skin and eye irritation

Is there a modern cost-effective solution for using copper sulphate in footbaths?

Yes there is a new copper delivery system that reduces the use of copper by 70% and is also cheaper to use than copper sulphate on its own. The product is called 'Healthy Hooves' and has been developed by a chemical company which specialises in improving the availability of metals from solutions in industry. This product has now been developed for use in cattle footbaths.

Healthy Hooves received an award at the Dairy Event for innovative products.

How does Healthy Hooves work?

Healthy Hooves is a triple buffered and safe acidifying agent that releases more copper from the copper sulphate so that only 30% of the usual amount is required i.e. a 300 litre footbath would only require 5kg instead of 15 -24kg. In addition it stabilises the solution so that it will allow the passage of up to twice as many cows.

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How is the product presented?

There is a straight Healthy Hooves product which you can mix with your own copper sulphate.

However there are now two ready to use products:

- **Healthy Hooves RTU** (ready to use) – this contains Healthy Hooves and copper sulphate in a liquid form which is added to the bath at 2 litres per 100 litres of footbath. In most circumstances it is best to use a higher level of 3.3 litres per 100 litres for the first month. This product is very competitively priced because the company purchase the copper sulphate in bulk.
- **Health Hooves Ultimate RTU** – this product contains Healthy Hooves and both copper and Zinc and it is used at 2 litres per 100 litres of footbath. Zinc is known to promote horn health and act as a disinfection agent. The level of copper is lower than in the straight RTU product and because of this the footbath can be used in sheep (although they must not be allowed to ingest the product).The price of Healthy Hooves RTU and Healthy Hooves Ultimate are the same.

What is the cost of a Healthy Hooves footbath per cow?

The typical cost for the Healthy Hooves products works out at 4-6p per cow. This compares with 10-20p for copper sulphate only. The price variation is to do with herd size, footbath size and the product used.

Where can I get Healthy Hooves products?

We believe that this product offers farmers the best option at a lower cost and has a huge environmental bonus. Therefore we have agreed to be stockists for the Norfolk/Suffolk region; which means that we will have the product in stock.

What sizes are available?

All the healthy hooves products are available in 4 x 5 and 25 litre containers. The 25 litre container represents the best value for money and this is the one that we will routinely stock. There are 200 litre containers available by special order. We are also looking at the types of mobile footbaths available. Many of the current footbaths on the market are not long enough and have an incorrect floor. The Paxton 3 metre footbath has a good floor and is the most suitable we have seen.

What is the cost of healthy Hooves?

The 25 litre RTU container costs £163.75+vat or £6.55 per litre. 25 litres will make up 1,250 litres of footbath, which should provide approximately 2,100 cow passages using a recommended 3 metre footbath size.

How often do I need to footbath my cows?

It is advisable to run the cows through at least two days a week but more often if there is a severe digital dermatitis problem – remember that Healthy Hooves stabilises the footbath for 500+ cows. You can check if the footbath is still effective by using litmus paper to test the ph of the solution.

Should I footbath throughout the year?

Yes the use of copper regularly during the year is essential to the control of digital dermatitis and in improving hoof strength due to its cumulative effect.

What about whole herd footbathing?

Six monthly whole herd footbaths with a copper product – i.e. all youngstock and dry cows has been shown to improve the digital dermatitis levels on the farm by reducing the level of infection carried in the stock.