

# Footbath Guidelines

## *Footbaths: “A Solution to a Problem or a Problem Solution”??*

Footbaths have been used for many years as part of many successful producers hoof care programs. Other producers have used them “off and on” or not at all. What should a dairy producer consider when starting or updating a footbath program?

- **What can a footbath do for my herd?**

Footbaths are most effective for treating diseases of the interdigital skin such as interdigital dermatitis and foot rot. Footbaths will not treat laminitis or other claw diseases. Footbaths also clean the foot, which can improve foot health.

- **How often do I need to use the footbath?**

The number of treatment days per week will vary with conditions. Start with three days per week. Using the footbath every day can be expensive and hard on the cows foot depending on the solution used.

- **What size footbath is the best?**

The footbath needs to be large enough so that all the cows’ feet are exposed to the solutions. Footbaths should be 9-12 feet long and at least 3 feet wide with a depth of 6 inches. Footbath solutions should be 4-6 inches deep to insure adequate coverage of the foot up to the dewclaw.

- **Where should I put the footbath?**

Locate footbaths on a level surface regularly traveled by cattle. The exit lanes from milking parlors work well. Place footbaths near the end of the exit lanes. This will avoid back ups at the parlor exit. Cows should enter a clean dry area after passing through the footbath

- **Is one footbath enough?**

If practical, locate a footbath containing water (pre-bath) preceding the treatment footbath. This will help to clean cows feet prior to entering the treatment footbath. The

treatment bath will also have less organic matter contamination.

- **How many cows can use one footbath?**

This will vary due to the size of the footbath, cow cleanliness, use of a pre-bath, type and concentration of medication used, and weather conditions. Manure deactivates the chemicals used in a footbath, therefore footbaths must be managed properly to achieve maximum effectiveness. Change footbath solutions after every 150-200 cows. *A poorly managed footbath can actually become a problem area with regard to foot health.*

- **What is the most common problem most producers have with footbaths?**

Many footbaths are too small and are not easily drained. If you cannot drain and clean the footbath easily the solutions will not be changed when they should. The best solution for these “footbaths” is to fill them with concrete and start over.

- **What should be used in the footbath?**

Many different products have been successfully used in footbaths. Many producers use a soap and water mixture in rotation with other chemical based solutions. Medications can be effective if the cows’ feet are clean before entering the bath and the baths are changed often. Do not mix medications and chemicals. Most medications are effective only when used at the proper pH. Consult with your foot trimmer or veterinarian for their recommendations. Common products and mixing directions are listed on the reverse.

# Footbath Guidelines

## Recommended Products:

Copper Sulfate*	5-10 percent solution
Zinc Sulfate*	5-10 percent solution
Terramycin **	0.1 percent solution (1 gram /liter)
Lincomycin **	0.01 percent solution (.1 gram /liter)

\*Use hot water to thoroughly dissolve the minerals. If using hard water, adding some vinegar will help to dissolve solution.

\*\* This represents an extra-label use of these products. Dairymen must consult with their veterinarian for proper labeling and further instruction.

## Mixing Instructions:

Use the steps outlined below to determine how much dry product, such as copper sulfate, to add to a footbath for the proper solution

- Determine capacity of footbath in gallons. For this example, the footbath is 3 feet wide, 9 feet long and has a depth of 6 inches.
  - Formula: length x width x depth x 7.46 (conversion factor to gallons)  
3 feet x 9 feet x 0.5 feet x 7.46 = 100 gallons of water
- When adding dry materials to a footbath, the gallons must be converted to pounds.
  - Formula: gallons x 8.33pounds/gallon = pounds in footbath  
100 x 8.33 = 833 pounds of water
- Next, determine the pounds of dry material to add to reach the desired percent solution.
  - Formula: Pounds of water x percent solution desired = pounds of dry product  
833 pounds of water x 0.05 (5 percent solution) = 41.65 pounds of dry material
- Additional conversion factors:
  - One gallon = 3.8 liters, 1 liter = 1.057 quarts, 1 quart = .95 liters,
  - 1 pound of copper sulfate/gallon of water = 10.7 % solution

## Pounds Of Dry Powder To Add To A Footbath

Footbath Capacity, Gallons	5% Solution	6% Solution	7% Solution	8% Solution	9% Solution	10% Solution
40	16.7	20.0	23.3	26.7	30.0	33.3
50	20.8	25.0	29.2	33.3	37.5	41.7
60	25.0	30.0	35.0	40.0	45.0	50.0
70	29.2	35.0	40.8	46.6	52.5	58.3
80	33.3	40.0	46.6	53.3	60.0	66.6
90	37.5	45.0	52.5	60.0	67.5	75.0
100	41.7	50.0	58.3	66.6	75.0	83.3

