Dairy Hygiene Starts With Clean Cows

Many dairy producers rely on footbath programs to help prevent and control chronic infectious claw lesions in their herds. Maximizing the effectiveness of a footbath programme hinges on three key factors:

1. **Hygiene**
2. **Proper design** (size, length and depth)
3. **Effective management** (chemical concentration, number of cow passes per change and frequency of use).

Footbath regimes are an integral component of infectious foot disease control in confinement dairy systems. The footbath is a simple mechanism for treating large numbers of cattle quickly and efficiently.

Hygiene Scoring

Use hygiene scoring to help determine ideal footbath frequency.

Proportion of cows with hygiene score 3 and 4	Suggested footbath frequency (minimum)
< 25%	As required
25 - 50%	2 days per week
51 - 75%	5 days per week
> 75%	7 days per week

Calculating Appropriate Footbath Volume

(12 cm solution depth)

Footbath Length (cm)	Footbath Width (cm) 60 cm	100cm
100 cm	Not recommended[a]	Not recommended[a]
200 cm	Not recommended[a]	Not recommended[a]
300 cm	216 litres	360 litres
400 cm	288 litres	480 litres

[a] Footbath must be at least 300 cm in length to ensure rear feet receive at least two immersions in solution.

Calculating Appropriate Quantity of Footbath Chemical/Product to Use

Footbath Volume (litres)	Litres (or kg) per Footbath[a] 2%	3%	4%	5%
200 litres	4	6	8	10
300 litres	6	9	12	15
400 litres	8	12	16	20

[a] Based on recommended chemical/product concentrations.

Steps to Achieve the Desired Solution:

1. **Determine capacity of a footbath.**
   Multiply: length (m) x width (m) x depth (m) x 1000 = number of litres
2. **Convert litres to kilograms.** Number of litres = kg of water
3. **Determine kilograms of dry product needed to achieve the desired solution.**
   Multiply: kg of water x percent solution desired = kg of dry product to add

Disclaimer: The guidelines for use set forth herein are assumed to be accurate based on common knowledge. However, the accuracy and applicability of guidelines for administration are not guaranteed. Zinpro Corporation disclaims any liability, loss, or damage caused by usage or non-usage of any guidelines set forth herein resulting from improper mixing, handling or the labelling accompanying the product, including serious injury and death.

About FirstStep®

The FirstStep® Dairy Hoof Health & Management Program takes the guesswork out of dairy assessments by providing a methodical way to evaluate an overall operation. With FirstStep, you can move from simply managing challenges to proactively planning for and preventing the greatest risk factors within dairy businesses.

For more information: contact your Zinpro representative or visit **zinpro.com/dairy**

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INT-D-4046 | 082021

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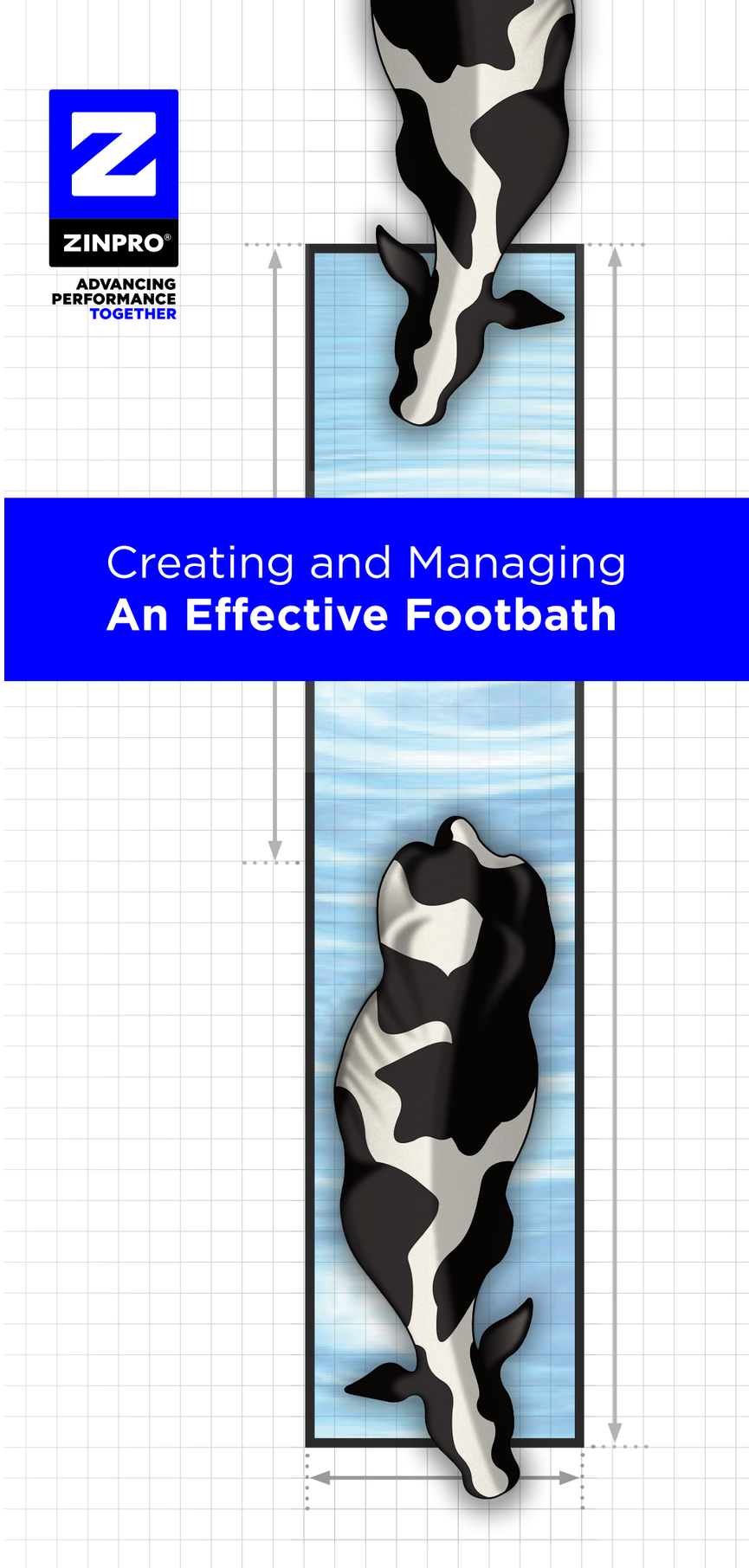
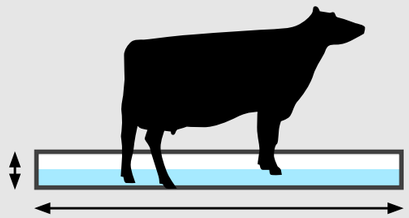


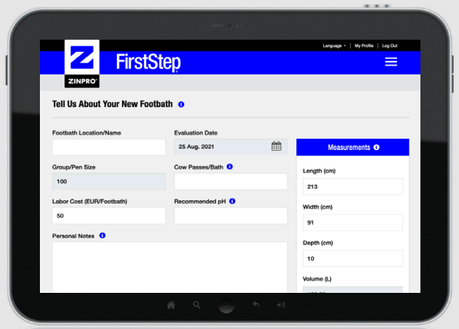
Creating and Managing **An Effective Footbath**

Design, Location and Management are key to **Footbath Effectiveness**



A footbath system is a simple way to quickly and effectively treat large numbers of cattle, no matter the type of operation. But a footbath system that isn't properly built and managed can actually do more damage than good.

To increase effectiveness of the footbath and minimize injuries to the animals, it's important to follow proper construction guidelines and – once built – to install a system of management practices.



Assess your footbath

The FirstStep® Footbath Assessor, when used in conjunction with hygiene scoring, helps develop a footbath programme for your operation. Make adjustments based on FirstStep recommendations to create a footbath programme that works to optimize your herd performance.

Source: Footbath design and use recommendations are adapted from paper published in The Veterinary Journal (Cook, *et al.*, 2012) titled "Observations on the Design and Use of Footbaths for the Control of Infectious Hoof Disease in Dairy Cattle."

KEY: Design and Location | Management

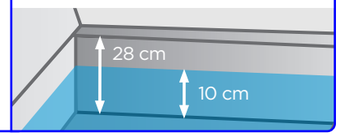
28 cm CURB STEP-IN HEIGHT

It has been proven that cows have no problem with a curb of this height.

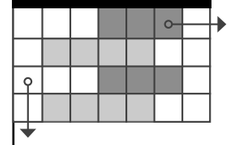
The higher step-in height increases the number of foot immersions in the bath.

10 cm MINIMUM WATER DEPTH

To ensure full immersion of hoof in solution.



SCHEDULE

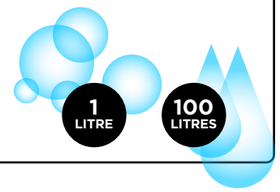


Use footbath at least 3 to 4 consecutive days per week.

Foot and leg hygiene of the herd will help determine the number of days required. Dirtier cows require more frequent footbathing.

On non-footbath days, keep hygiene in check with a soap bath.

Use 1 litre of soap per 100 litres of water



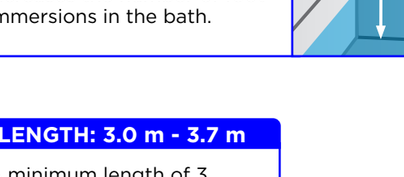
LENGTH: 3.0 m - 3.7 m

A minimum length of 3 meters ensures that rear feet receive at least two immersions in solution.

HEIGHT: 1.0 m

Side walls are sloped from a height of 1 meter above the floor of the bath to the upper edge of the bath, and the sides should be enclosed to create a tunnel.

Locate footbath on a level surface, in an area regularly traveled by the cattle.



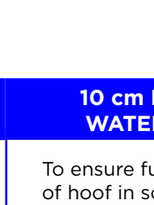
190 - 200 LITRES

The amount of solution needed to fill a properly sized footbath.

(see back panel for common calculations)

ANGLE: 70%

Sloped side walls make cows feel at ease, not claustrophobic.



WIDTH: 0.5 m - 0.6 m

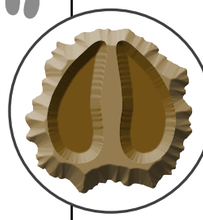
Wide enough to ensure that cows can walk through comfortably while minimizing the amount of footbath solution and hence, the amount of chemical needed to charge the footbath.

Cows should enter a clean, dry area after passing through the footbath.

Cows should be able to bypass permanent footbaths on days when they are not being used.

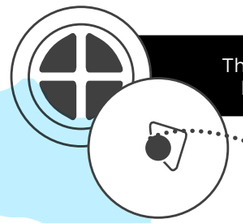
Change footbath solution after every 100-300 COWS

This frequency will vary depending upon cow cleanliness, type of disinfectant or chemical concentration used and weather conditions.



Manure deactivates chemicals used in footbaths. A poorly managed footbath can become a vector for infectious diseases of the foot.

Alternate times for replenishing footbaths with fresh solution so each group of cows has access to fresh solution.



Thoroughly drain footbath and rinse with water before mixing a new batch of solution.