

# Chem-Star

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## Less-Cu

THE CLEAR FOOTBATH SOLUTION.

Less-CU is a unique livestock foot bath cleaning additive for dairy livestock.

### WHAT LESS-CU DOES

Less-Cu makes copper sulfate more soluble (available) and reduces the introduction of heavy metal to the environment for a clear, effective solution to hoof conditions.

### HOW LESS-CU WORKS

Our industry-best combination allows for reduced copper sulfate usage by the solubilization of the copper which mitigates the chemical binding of copper and manure.

### USAGE RECOMMENDATION

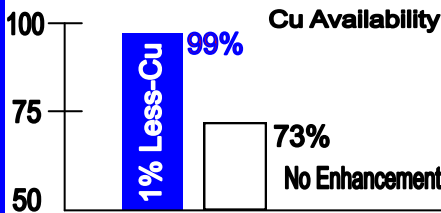
All it takes is one-half gallon of Less-Cu per 50-gallon mix to cut copper sulfate usage in half. Use the same bath replenishment frequency, preferably every 200 to 300 cows, as with a traditional foot bath preventative program.



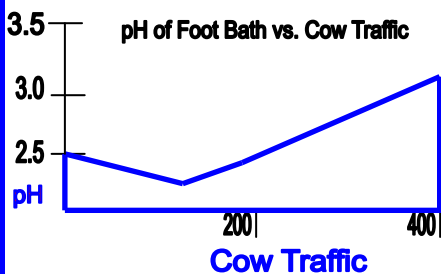
Without Less-Cu



With Less-Cu 1%



Less-CU keeps manure from binding copper and maximizes solution copper availability.



**Less Copper...  
More Economical!**

## Benefits:

### SAVES MONEY...

- By reducing the amount of copper sulfate needed in the footbath by up to 50%.
- By reducing the quenching of digester action of typical copper sulfate solutions.

### SAVES TIME...

- By being highly soluble-quickly disperses into the solution.
- By effectively controlling the footbath at a PH<5. This helps to reduce the footbath changeover cycle.

## Less-Cu Usage Chart

Copper Sulfate Without Less-Cu	Copper Sulfate With Less-Cu	oz. of Less-Cu
50 Lbs.	25 Lbs.	+ 64oz
45 Lbs.	22.5 Lbs.	+ 58oz
40 Lbs.	20 Lbs.	+ 51oz
35 Lbs.	17.5 Lbs.	+ 45oz
30 Lbs.	15 Lbs.	+ 38oz
25 Lbs.	12.5 Lbs.	+ 32oz
20 Lbs.	10 Lbs.	+ 28oz
15 Lbs.	7.5 Lbs.	+ 19oz
10 Lbs.	5 Lbs.	+ 13oz

See Cost Analysis on Back:

## Cost Analysis:

### Less-Cu Footbath Worksheet

Cost of Copper Sulfate (CuSO<sub>4</sub>) 50 lb \_\_\_\_\_  
per lb \_\_\_\_\_

Cost of Less-Cu 15/55gl \_\_\_\_\_  
per oz \_\_\_\_\_

Footbath Size (Gallons)

ex. (60"x36"x6")/231= 56 Gallons (Length x Width x Depth / 231 = Gallons)

( \_\_\_\_\_ L x \_\_\_\_\_ W x \_\_\_\_\_ H) / 231 = \_\_\_\_\_ Gallons

### Normal CuSO<sub>4</sub> 5% Solution

.42 lbs CuSO<sub>4</sub>/ Gallon of water

ex.[.42 lbs x 56 Gallons = 23.5 lbs CuSO<sub>4</sub>]

.42 lbs CuSO<sub>4</sub> x \_\_\_\_\_ Gallons Water = \_\_\_\_\_ lbs CuSO<sub>4</sub>

### Less-Cu Enhanced Solution

.21 lbs CuSO<sub>4</sub> / Gallon of water **(1/2 the Normal CuSO<sub>4</sub>)**

1.25 Oz Less-Cu / Gallon of water

ex.[.21 lbs CuSO<sub>4</sub> x 56 Gallons = 12 lbs CuSO<sub>4</sub>]

[1.25 oz Less-Cu x 56 Gallons= 70 oz Less Cu]

.21 lbs CuSO<sub>4</sub> x \_\_\_\_\_ Gallons of Water = \_\_\_\_\_ lbs CuSO<sub>4</sub>

1.25 oz Less-Cu x \_\_\_\_\_ Gallons of Water = \_\_\_\_\_ oz Less-Cu

### Cost / Footbath

#### CuSO<sub>4</sub> Cost

\_\_\_\_\_ lbs CuSO<sub>4</sub> x \$ \_\_\_\_\_ /lb = \$ \_\_\_\_\_ /footbath

#### Less-Cu Enhanced Cost

\_\_\_\_\_ lbs CuSO<sub>4</sub> x \$ \_\_\_\_\_ /lb = \$ \_\_\_\_\_ /footbath

\_\_\_\_\_ oz Less-Cu X \$ \_\_\_\_\_ /oz = \$ \_\_\_\_\_ /footbath

Total \$ \_\_\_\_\_ /footbath

\*Less-Cu delivers higher copper activity and up to 2 times more cows

\*Less-Cu reduces the amount of copper applied to environment.

Message: