

Copper Sulfate Survey of Oregon's Dairy Industry

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Objectives

- Survey 30 dairies in the Willamette Valley and the north coast
- Gather information about footbath usage
- Determine if the use of copper sulfate and/or zinc sulfate is building in our soils
- Sample manure from cows and in manure storage
- Test farm grown forages for copper and zinc

Copper Soil Results

Soils ranged	.7 to 37 ppm
Soils averaged	5 ppm
75% of soils considered high	> 2 ppm
38% of soils extremely high	> 5 ppm

Zinc Soil Results

Soils ranged	3 to 54 ppm
Soils averaged	10 ppm
Adequate for most crops	1 ppm

Copper manure and forages

Cow manure	10 ppm
Liquid storage	2 to 58 ppm
Forages ranged	1 to 10 ppm
Forages averaged	3.5 ppm

Project Summary

- Copper is accumulating on farms using copper sulfate regularly
- Several fields were extremely high
- Forages appear to be safe at this point
- Some producers still believe copper is essential in footbaths
- Those that still use copper should add copper testing to regular soil and forage testing to monitor farm levels