Moo-ving Towards Cleaner Water

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This research investigated whether the presence of pure copper bars in water containers is associated with changes in visible algae growth and water quality indicators in an agricultural setting. The purpose of this study was to test whether copper, known for releasing ions that interfere with algae cell functions, could serve as a low - cost method for maintaining cleaner livestock water. The hypothesis stated that if a pure copper bar is placed in a cattle water bin, then less algae will grow over time because copper has natural algicidal and antimicrobial properties that inhibit algae reproduction. To test this, multiple buckets of equal size were filled with tap water, kept under identical sunlight and environmental conditions, and observed over seven days. Half of the buckets contained a pure copper bar, and algae levels were measured using blue - green algae test strips. The results showed that buckets with copper had little to no algae growth, while buckets without copper developed noticeable algae. These findings support the hypothesis that pure copper is effective in reducing algae growth in livestock water bins in an agricultural setting.

Awards Won: