AGMIN NEWSLETTER No. 407

Withholding Period for Water Treated with Kupramine®

Agmin Kupramine[®] is a powerful algicide which will kill most forms of planktonic and filamentous algae, including **Chara** and **Nitella**. At the concentrations required to affect this algal control, the copper concentration will be in the range of 0.2 – 0.5mg/L (0.2-0.5ppm). This level of copper is not injurious to humans, livestock, fish and aquatic birds.

However, certain algal species, especially blue-green algae, will release powerful toxins from their cell contents, even after the organism has been destroyed. This toxin release stems from the breakdown of the algal cell membrane, which then releases organic toxins contained within the cytoplasm.

These algal toxins consist of large organic molecules which can be broken down in water by:

- (1) Chemical degradation with chlorine,
- (2) Biological degradation, especially in strong sunlight.

A typical withholding period is 7 days or in cases of heavy algal blooms up to 14 days, during which time any organic toxins will have been destroyed.

Residual copper in treated water will not be harmful to live stock and will not be accumulated in the meat.

When large masses of algal cells are killed by treatment with Kupramine[®], the decaying vegetable matter may lead to oxygen depletion in the water. This can be rectified by aeration or pumping of the water.

