

# AGMIN NEWSLETTER No. 414

## Kupramine® Drip System Application in Irrigation Conveyance Systems

Kupramine® can be applied in flowing channels with water flow rates up to 20 Mega litres per hour (20ML/hour). The product Kupramine® should be applied as soon as algae begin to interfere noticeably with normal flow of water, e.g., clogging of lateral headgates, suction screens and siphon tanks.

The water flow rate can be estimated using the formula:

$$\text{Average Width (m)} \times \text{Average Depth (m)} \times \text{Velocity (m/s)} \times 3.6 = \text{ML/hour}$$

The dose rate of Kupramine® should be maintained for a period of 3 hours at a copper concentration of 1.0mg/L in flowing water. The table below gives some guidelines for the drip rate of Kupramine® under various water flow rates in a channel or water conveyance system.

***Drip Rate Guide for Kupramine®***

Water Flow Rate		Kupramine® Drip Rate	Volume of Kupramine® over 3 hours
ML/hour	ML/day	Litres per hour	Litres
1.0	24.0	9.5	28.5
5.0	120.0	47.5	142.5
10.0	240.0	95.0	285.0
15.0	360.0	142.5	427.5
20.0	480.0	190.0	570.0

The above quantities of Kupramine® will provide 1.0mg Copper per litre of flowing water over a 3 hour period, which is generally sufficient to remove susceptible blue-green algae (Cyanobacteria).

For intermediate values of flow rates between 1-20ML/hour, the above recommended drip rates of Kupramine® should be adjusted by interpolation, on a pro-rata basis.

