

# *Clipper Herbicide*<sup>®</sup> 2021

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[www.clipperaquatic.com.au](http://www.clipperaquatic.com.au)







































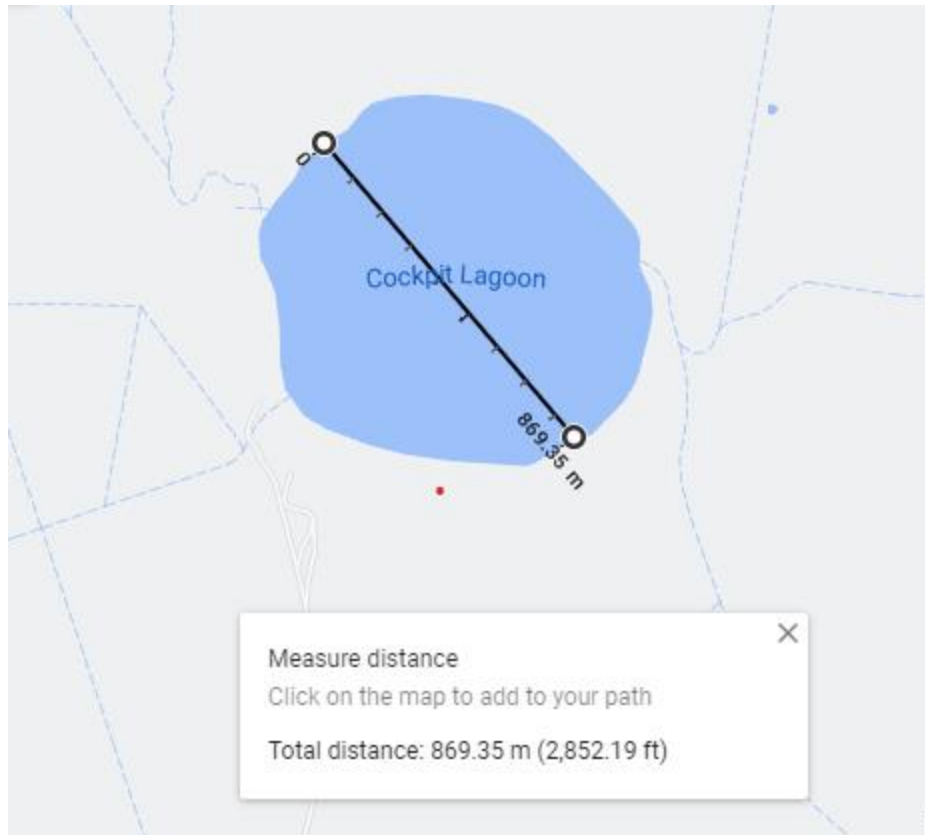




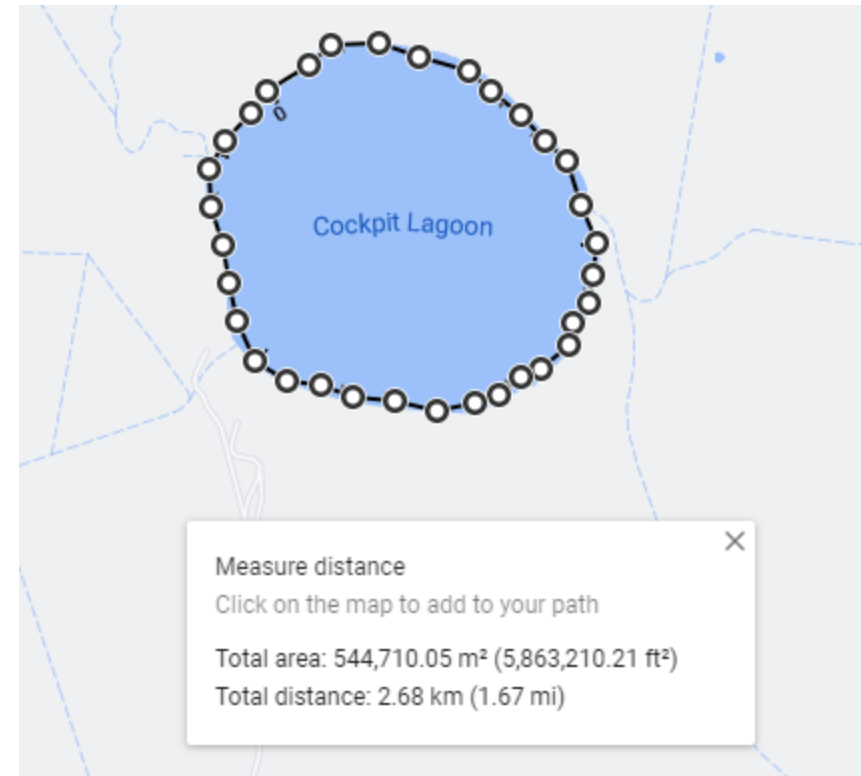




# Measuring using Google Maps Cockpit Lagoon



Method 1 Diameter measurement



Method 2 Circumference measurement,,











# Clipper Herbicide<sup>®</sup> Online Rate Calculator

Or refer to the Clipper Label  
alternative manual calculation  
methods:

- SUB-SURFACE application
- SUB-SURFACE Linear application
- SURFACE application

## Rate Calculator

Please select your application method

Sub Surface application

Sub Surface boom application

Surface application

# Clipper Herbicide<sup>®</sup> Withholding

Between treatment and re-entering treated water: not required

Between treatment and using treated water for drinking by pets and livestock: not required

Between treatment and using treated water to irrigate pasture for grazing: 2 days

Between treatment and using treated water to irrigate couch or kikuyu turf and lawns: 2 days

For other turf species – contact your supplier

Between treatment and using treated water for recreational fishing: 3 days

# Clipper Herbicide<sup>®</sup> Withholding cont.

Between treatment and using treated water, with pH greater than 6.8, to irrigate gardens and ornamentals: 7 days

Between treatment and using treated water, with pH greater than 6.8, to irrigate food crops:  
14 days

Between treatment and using treated water for drinking by humans: 10 days

## NOTE:

1. Water being held and then used for irrigation typically has pH higher than 6.8. If a lower pH occurs then consult your supplier before using.
2. Appropriate warning signs should be posted to limit use of treated water as per the above withholding periods.

# Protecting aquatic life and reducing the risk of an algae bloom

Rapid decomposition of vegetation from herbicide treatment can result in loss of oxygen from the water.

A sudden decrease in dissolved oxygen can result in fish suffocation.

When treating dense vegetation, it is advisable to treat the water body in sections (not more than 50% at one time) to avoid an overall decrease in dissolved oxygen.

Applications should be at least 14 days apart.

# CLIPPER

## HERBICIDE



**MACSPRED<sup>®</sup>**  
A U S T R A L I A

# Frequency of application

Treatment of a water body may involve one, or sequential applications.

If more than one, frequency of application is influenced by the same factors that influence the number of applications as listed on the label.

Summary Number and timing of applications Refer to CLIPPER Herbicide Label for more details Page 4 & 5

Treatment of a water body may involve one, or multiple applications. If multiple, the number of applications is determined by:

1. The number and diversity of weeds to be controlled.
2. Density of the weeds. Very dense populations of the target weed with corresponding high biomass may require multiple applications of CLIPPER Herbicide.
3. Differences in susceptibility to CLIPPER Herbicide between weeds. For example, *Egeria densa* is known to be slower to respond to treatment with CLIPPER Herbicide.



# Applications summary continued

4. Temperature and the amount of direct sunlight received by the water body.

CLIPPER Herbicide works better under sunny warm conditions and when the treatment area is fully exposed to direct sunlight. DO NOT apply CLIPPER Herbicide during the winter months when weeds are not growing actively and/or when low temperatures and low light intensity combine to create less favourable conditions for the herbicide to work.

5. CLIPPER Herbicide breaks down by hydrolysis and has a short half-life in water.

The half-life of CLIPPER Herbicide tablets in water is directly affected by pH of the water. The higher the pH, the shorter the half-life. DO NOT apply CLIPPER Herbicide to the water column when the pH of the water exceeds 8.0 at the time of application. Use only as a foliar application in a buffered spray solution against floating weeds in such conditions.

6. The pH of the water body can increase and exceed 8.0 by mid-day due to photosynthesis.

To fully utilize herbicidal activity of CLIPPER Herbicide related to pH, available heat and light intensity during daylight hours, always apply CLIPPER Herbicide early in the morning. DO NOT apply CLIPPER Herbicide in the afternoon or when prolonged cloud cover is expected. Semi-shaded or permanently shaded sections of the water body may require additional applications compared to sunny areas.

# Frequency of application continued

In addition, timing of subsequent applications is influenced by:

1. Whether or not the dominant weed or weeds controlled by the initial application are still present and growing. In some instances, it may be advisable to postpone follow-up applications until the dominant target weed is completely controlled or affected by the herbicide before making a follow-up application.
2. Re-application interval for Clipper Herbicide<sup>®</sup> tablets is 14 days or longer depending on the situation. DO NOT re-apply within the first 14 days.
3. DO NOT apply more than three times in a single treatment. Only one treatment per year should be required, not including spot-spraying or targeted clean-up sprays to remove weed survivors or re-infestations.

# Environmental fate

**Half-lives and Koc estimated from the environmental fate laboratory studies for Flumioxazin**

Fate Property	Status	Half-life or Koc
Hydrolysis	pH 5	4.2 days
	pH 7	1 day
	pH 9	0.01 days
Aqueous photolysis (pH 5)		1 day
Soil photolysis		3.2 and 8.4 days
Aerobic soil metabolism		11.9 and 17.5 days
Anaerobic aquatic metabolism		0.2 and 0.2 days

\* USA EPA 2003

# Clipper Herbicide®

## Product Stewardship Summary

**MACSPRED®**  
A U S T R A L I A

- Not suitable for home garden use
- Must be applied by an Accredited applicator with current chemical user training and or a licenced contractor. Refresher required training every 5 years
- Must be applied and used in accordance with the label and the state requirements.
- Must not exceed 400 ppb
- Must be used in the recommended treatment period
- Must be applied using the required PPE
- Application records to be kept for the required period as listed in each state or territory.



# STORAGE AND DISPOSAL

Store in a locked room or place away from children, animals, food, feedstuffs and fertilizers.  
Store in the closed, original container in a dry, cool well-ventilated area out of direct sunlight.

***DO NOT store in or expose product to wet conditions.***

Rough handling of product may cause breakage of water soluble wrapping.

DO NOT dispose of undiluted chemicals on-site.

Use an approved waste management facility or designated landfill.



Wet/damp tablet



# SAFETY DIRECTIONS

Poisonous if absorbed by skin contact or swallowed. May irritate the eyes and skin.

Avoid contact with eyes and skin. Open packets only as needed and never remove the water-soluble wrapping around the tablet.

When opening the container and using the product, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length chemical resistant gloves. In addition, when preparing spray and using the prepared spray, wear goggles.

After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, goggles and contaminated clothing.

# PRECAUTIONS

While using elbow long gloves, tear the bag open and throw the contained tablets wrapped in water soluble covering directly into a waterbody infested with aquatic weeds at appropriate spacing; or add the contained tablets wrapped in water soluble covering directly into the spray tank.

When dissolving in the spray tank, add individual tablets slowly, one at a time.

**USE ALL TABLETS.**

Safety of treated water on gardens and ornamentals has not been tested and therefore, it is recommended that small areas of gardens or a small number of ornamental plants be tested for safety before largescale application occurs.

# Recommended equipment

Electronic Calculator

Cotton overalls (or equivalent clothing)

Elbow-length chemical resistant gloves.

Surface application Goggles, (or equivalent.)

Height Pole if required

Tape measure 50 m

Water pH tester

**Optional depending on application method.**

Boat or canoe for Surface application

Water curtains / modified shade cloth.



# Appendix and references

1 Megalitre of water = 1000 m<sup>3</sup>

Megalitres to Litres 1 Megalitre: A megalitre is exactly 1,000,000 litres

26.666 (> 27) tablets per 1 Megalitre of water or 1000m<sup>3</sup> = 400 ppb.

1 tablet per 37.5 m<sup>3</sup> = 400 ppb (Lower rate 200 ppb) (37,500L)

Measure Circumference at the edge of the water. Then calculate the radius using the formula  $r = C/2\pi$ . ( $\pi = 3.14159$ ) Then calculate the Area using the formula  $A = \pi r^2$ .

## Volume

$V = \pi r^2 h$  (h = depth)

Length (m) X width (m) x depth (m) = Volume m<sup>3</sup>

Desired PPM Amount of product to add (mL/g) =  $\frac{\text{Desired PPM} \times \text{water Volume (L)}}{\text{Product concentration in (mL/L or g/L or g/kg)}}$  Eg. ai.  
**Note PPM x 1000 = PPB**

Applied PPM =  $\frac{\text{Product Added (mL or g)} \times \text{product concentration (mL/L or g/L or g/kg)}}{\text{Water volume in L}}$  Eg. ai.

# Training Quiz

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PLEASE COMPLETE THE 6 SECTIONS WITH 20 LABEL-BASED  
MULTIPLE CHOICE/QUIZ QUESTIONS AND THE CALIBRATION  
ACTIVITIES

# Questions

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For further information and aquatic weed  
control solutions, contact:

**Joss Pohl, Territory Sales Manager**

(VIC, SA, Southern NSW, TAS)

**Greg Nash, Territory Sales Manager**

(QLD, NT, Northern NSW, WA)

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