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# Policy on Herbicide Use.

We have created this document to provide some information on the use of herbicides for pest plant plant control, including why and how we recommend they be used. We aim to create clear paths of information and communication to keep both the individuals carrying out pest plant control, and the environment they are working in, safe and healthy.

Wherever possible, mechanical methods of pest plant control should be used, for example pulling out small young plants by hand. However, in many cases, herbicide is required in order to fully kill the plant and prevent regrowth. In addition, on some sites there may be a risk of soil erosion, in which case, using a herbicide is preferable to digging out roots and rhizomes.

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Please refer to our pest plant resources and the Forest and Bird weed control guide for information on which herbicides can be used with the most common pest plant species found within the Hibiscus & Bays Local Board area. For each pest plant type, we aim to use the minimum amount of herbicide for the best ecological results. The type of herbicide selected should take into consideration surrounding native plantings, proximity to public walkways and other individuals, as well as factors relating to health and safety and risk management, which will vary site by site. We recommend that project leads identify the risks specific to each site before undertaking work. For advice, please contact our Restoration Advisor: kane@restorehb.org.nz. Project leads should brief volunteer teams on what active ingredient is being used to control the target pest plant plant and why.



Restore Hibiscus & Bays advise that most individuals and volunteers use 'cut and paste' gels for all their pest plant control activity, as they are the most contained yet effective method of using herbicides. They can be used without a Growsafe qualification.

We recommend two products in particular, as there are fewer risks than with other herbicides if not used correctly:

- Bamboo Buster (active ingredient glyphosate)
- MetGel (active ingredient metsulfuron)

Bamboo Buster and MetGel are thick gels, marked with a dye.

A thin film should be carefully smeared onto a cut stump or a slashed stem of ginger or arum lily, for example. They can also be dabbed very carefully onto cut vine stumps.

In order to keep the user and the environment safe, Restore Hibiscus & Bays recommends to:

- only use herbicide gel when you have a few hours of sunny weather predicted.
- Use a very sparing amount when you see blue dye on your stump, that is enough.

- Wear gloves, cover up when applying and avoid any contact with the skin and eyes.
- Ensure that the cap is firmly on after application.
- Keep herbicide away from children and pets.
- Read the back of the label for other recommendations.
- Follow up every three months, with at least three applications in total to ensure the pest plant has been successfully controlled before proceeding with planting.



## Recommended Cut and Paste Gels:

#### <u>Bamboo Buster</u> (active ingredient – glyphosate)

- Glyphosate is the only herbicide generally permissible over water (some brands safer than others).
- Bamboo Buster is effective on a wide variety of pest plants.
- It has low effectiveness on ginger or arum lily.
- Glyphosate is a low toxicity, non-residual herbicide, meaning it breaks down relatively quickly and the site can be planted in just 3 weeks after use.

## <u>MetGel</u> (active ingredient – <u>metsulfuron)</u>

- MetGel is very effective for pest plants with a large rhizome, such as ginger or arum lily.
- MetGel has a short but active soil toxicity.
- Minimise MetGel usage near valued trees as it can penetrate the soil and kill large trees if used in their root zone.
- MetGel does break down, but it's recommended to wait 3-6 months, or until seedlings emerge, before planting.



## **Herbicide Spraying**

Foliar spraying is not permitted on council reserves without a Growsafe qualification and appropriate training. In some cases however, careful spot spraying may be the best method to use under the supervision of our Restoration Advisor.

Spraying is usually done after previously cutting pest plants, and allowing them to regrow in 2-3 months. They often then grow new leaves in tight tidy bunches that are easy to see, and can be carefully spot sprayed from only a few centimetres away. This is the safest way to reduce the chance of 'spray drift' or damaging nearby natives. Spray must always be accompanied with a blue marker dye. This is very useful to know exactly where has been sprayed so as not to overlap, meaning that only the minimal amount of herbicide is used.

Signage should always be put up at public entrances or on the nearest track/walkway to the site. All people using herbicide spray should wear appropriate PPE.

Growsafe and health and safety training courses are available on occasion for free through Auckland Council. <u>Register</u> for our newsletter to receive updates on upcoming opportunities.



## **Storage and PPE**

We store our herbicides in their original manufactured containers. If in transport, the product should be isolated away from individuals, e.g. in the boot, and away from food items. Before undertaking volunteer pest plant control activity, a list of PPE should be sent to individuals undertaking the work. Some PPE can be provided by Restore Hibiscus and Bays, such as gloves, masks, hi-vis jackets and eye protection. Volunteers should understand how to use each type of protective equipment appropriately. Each individual should also be able to assess whether their own protective equipment is in a suitable condition. Project leads should take the appropriate steps to ensure all PPE is rinsed/washed.

## **<u>Glyphosate Safety</u>**

Glyphosate is one of several herbicides used in ecological restoration. Auckland Council and Restore Hibiscus & Bays only recommend two herbicides glyphosate and metsulfuron - as evidence suggest they are associated with a low level of risk. It is not possible to get access to other types of herbicide that are associated with a higher level of risk. Glyphosate remains a crucial tool for ecological restoration to help prevent collapse of ecosystem processes and loss of our native forests. We do not yet have enough volunteers and landowners controlling pest plants manually to keep up with the rate of ecosystem loss. Using organic sprays, including vinegar, as alternatives can be a health risk for users and only knockdown the growth above ground. They can also damage soils.

# For additional recommendations:

Restore Hibiscus and Bays is committed to providing up-to-date best practice information, tools and equipment to groups and projects working within our network. We encourage individuals undertaking pest plant control to make their own appropriate decisions in line with this guidance, for example regarding personal health and safety or operating under certain environmental conditions. Please refer to the following documents and email us at info@restorehb.org.nz with any questions:

#### Pest Plant Control Methods and Best Practice

#### Health and Safety Guidance

#### Forest and Bird Weed Control Guide

#### **Other Pest Plant Resources**

To borrow tools and equipment from Restore Hibiscus & Bays, visit out tool library