Chemical use in your Garden for Wildlife

If you use herbicides to control weeds in your garden, it’s vital to know how to manage and handle them safely and responsibly. For those who would prefer to avoid chemical use in their gardens, please refer to our ‘alternatives to chemicals’ section.

Glyphosate is one of the most widely used herbicides. It is sold under a variety of brand names, including Round Up, No Grow, Weed Master Duo, and Zero. It is a systemic, non-selective chemical with very low toxicity that is effective in killing all plant types including grasses, perennials and woody plants. When applied post-emergence it shows no pre-emergence or residual activity. In Central Australian gardens, Glyphosate is primarily used to eradicate Buffel Grass and Couch Grass using a spray pack.

How it works
Glyphosate is only effective against young, actively growing plants. In Central Australia this means it is crucial to use herbicide-based control methods following rain events. Alternatively, watering smaller areas of couch lawn can simulate a rain event and encourage new growth, after which spraying will be successful.

Glyphosate is absorbed through the plant leaves, then carried by the sap stream into the roots, where it prevents them from absorbing nutrients from the soil- thereby killing the plant. The plants need to be actively growing and have enough leaf area to absorb sufficient of the herbicide so that it can be circulated throughout its system.

Spraying is not a one-off solution; follow-up must be undertaken as weed seed remains in the soil and can germinate in subsequent rain events. Only spray where you will have time to follow up your actions over the year, otherwise your initial work will be futile.

In areas where you do not have the resources to follow-up your work, slashing buffel, or mowing couch before it sets seed, is effective in preventing the grass from seeding and spreading.

Weather conditions
Do not spray when plants are under stress, as stress reduces the plants ability to absorb and translocate herbicide. Stress includes conditions such as disease, low temperatures (12°C or below), lack of soil moisture and heat. Most problematic of these in Central Australia are lack of water and heat,
so choose cooler days, early morning or late evening to spray. Don’t spray under windy conditions, and ensure no rain is expected for at least 6 hours. Although less relevant in Alice Springs than other locations, it’s vital to never spray near water bodies and drainage lines. Also avoid spraying onto hard surface areas (such as driveways or paving) where the herbicide may be washed into gutters and drains. Roundup® BIACTIVE has been specifically designed for safe use around waterways.

**Personal protection**
Always wear protective clothing, closed-in boots, gloves and safety glasses when spraying Glyphosate.

**Preparing the mix**
Make sure the water used for mixing is clean, not saline and free of dirt: rainwater is best. Put 80 percent of the required water into your clean sprayer, add the chemical, then slowly add the final 20 percent of the water to prevent frothing.

**Quantities**
Most people apply far more chemical than is needed to kill the weeds being targeted. The ideal ratio for specific weeds should be outlined on the product directions. The Alice Spring Desert Park has found a ratio of 15ml roundup/1L water to be most effective on buffel grass. Always use the minimum amount of spray mix needed to achieve uniform coverage of the target foliage without runoff. Glyphosate is non-selective, so make sure your spray only targets the selected weeds. Some native plants are very sensitive to spray drift, so spray as low to the ground as possible and be aware of the pressure on your spray pack.

**Following spraying**
Glyphosate takes time to work. Do not pull, dig or mow weeds for a week after spraying, and don’t respray because you fail to see an obvious effect within just a few days. Grass will wilt and yellow after there has been time for the herbicide to be absorbed. Leaving the dead plant in the ground may be a useful option to control wind or run off erosion if Buffel is being controlled over large areas.

**Alternatives to chemicals**
Whilst chemical use is an easy, quick and effective means to control weeds, there are many reasons to reduce reliance on chemicals. Other than chipping or handweeding, there are other methods you can try to eradicate smaller infestations of weeds. Reducing the sunlight available to your plants will cause any plants that germinate to die from lack of light. Laying a sheet of solid material over the surface of moist soil will have this effect.
Solarisation has also been effectively used in some garden-situations, whereby moist soil is covered with a sheet of plastic for several weeks during summer to cook any plants and seeds on the surface.

References


Garden for Wildlife events

Happy Birthday Garden for Wildlife!
Garden for Wildlife will be holding its two year anniversary on the 4th of April, at Greening Australia’s first native plant sale of the year. The celebration will include (short) speeches, displays, the winner of our Garden for Wildlife photo competition will be announced, and there will be a ‘planting techniques to improve survival rates and establishment’ demonstration. The nursery is located at Charles Darwin University. Take Entrance 2, off Grevillea Dve, Primary Industries Nursery. The plant sale will take place 8am-12pm and the Garden for Wildlife celebrations will commence at 9:15am, followed by cake and coffee and the opportunity to catch up with your fellow Garden for Wildlifers.

Insect workshop
Flyer with details attached
6:30pm onwards
Thursday 16th April
Olive Pink Botanic Gardens