



Herbicide-wiping tool and its application for selective control of bulbous weeds

The tool that HFNC adapted (by fitting small oval pads cut from kitchen sponges to the rubber cups) is a “**Pick up & Reaching Tool**” once obtained from *The Reject Shop* but now from *Bunnings*. We fixed the pads to the cups with wool thread, after drilling 4 holes near the edge of the rubber cups. Alternatively, replace the cups with a stiff plastic back and attach it and the pad with a small bolt, washers and nut.

The tool has a pistol grip and trigger to operate the jaws. It is cheap (\$9), lightweight, fairly robust, easy to use and very effective since both sides of the leaf or stem are contacted. Simply grasp the plant near the base and lift. No bending is required and many thousand plants can be treated quickly and safely. The tool can also be used to dab the leaves of garden escapees such as *Freesia*, *Gazania* and *Oxalis purpurea*.

The pads are dipped into a container that holds the herbicide-wetter-dye mixture. We use plastic containers that originally held produce (e.g. honey or rice), obtained from supermarkets. The opening of the container needs to be large enough to allow the pads to be inserted (use the trigger to press the pads together to allow this, then release the trigger to allow the springs to enter). Drill a hole in the centre of the container lid and attach it to the container by a cord, so that it is accessible when required for storage or transport.

Sparaxis, Cape Tulip, African Weed Orchid, Wild Gladiolus or other weeds of similar structure are individually wiped with a concentrated herbicide solution (*Metsulfuron methyl*, 1 g/L, *Glyphosate* 50 mL/L, surfactant 5 mL/L, dye 5 mL/L) using this tool to deliver herbicide to the pest plant without contacting other plants. Note – 1 g of *Metsulfuron methyl* powder (Ally=Aim=Brushoff) is about ¼ kitchen teaspoon measure. Omit the *Glyphosate* if there are adjacent native species (incl. most native grasses) that cannot be avoided and that would be affected, or if it is considered that *Glyphosate* might only kill the top but not the tubers or bulbs. *Metsulfuron methyl* has a very low toxicity to mammals and is safe to handle. It should kill the tubers, but slowly. *Glyphosate* speeds up the kill, necessary if the plants have flowers and would otherwise set viable seed before dying off. *Metsulfuron methyl* solution may become inactive if stored, so only prepare a small volume for immediate use (e.g. 1-2 L may be enough for one person per day).

The objective of herbicide-wiping is to kill the pest plants but not the adjacent native species (e.g. orchids and native lilies) that may be closely associated. Broad-scale spraying of Cape Tulip and other weeds results in all of the native species in the spray zone being killed, thus creating a vast amount of bare ground that grows only Cape Tulip and other weeds in the following year. Nor does it actually kill all of the Cape Tulip plants in the spray area because these plants are difficult to hit with spray and the stem/leaf surface does not wet easily. The same applies to many other bulbous species, such as Wild Gladiolus.