Wiping out tall weeds

Brad Rayner

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In the early 1970s devices known as rope wick applicators were used to wipe chemicals onto taller growing weeds, leaving the shorter pastures and crops unaffected. These units involved specially designed ropes to transfer the herbicide from a reservoir to the weed leaf surface.

Because of the high cost (up to $1000 per metre of boom) and poor design of some units, they were not widely accepted. Low operating speeds (4–5 km/h) and the frequent need to pass over the weeds from at least two directions were other disadvantages.

Using the same principle, but substituting tough cloth or blanket material for the ropes, has been investigated in Western Australia over the last year or so, and is looking a winner. Units are cheaper and can be made on farms.

Testing of a prototype by the Department of Agriculture also indicated that only one pass was often needed over most weeds and that the speed of operation could be doubled.

Benefits of the blanket wiper over the conventional boom sprayer include:

- No chemical drift, so it can be used even in windy conditions.
- Herbicides that are very effective on certain weeds but are non-selective can be wiped onto taller weeds without fear of damage to crop or pasture.
- Because the blanket touches only the weeds, it can be operated at lower water volumes (6–20 L/ha) and sometimes at much reduced chemical rates. A farmer-designed blanket wiper using chlorsulfuron (for controlling Cape tulip in pasture) has used about 2.5 g/ha compared with the 10–20 g/ha recommended for boom spraying.
- Blanket wipers are simple to use, light and robust, with few moving parts that require servicing.

Blanket wipers are simple to use, light and robust, with few moving parts that require servicing.

Tested so far has indicated that blanket wipers have potential for substantial control of Cape tulip, Paterson’s curse, onion weed, guildford grass, bracken and thistles. Some farmers have also had good control of rushes growing along creeklines. However, users need to ensure that blankets do not become dirty and clogged, reducing the effectiveness of some herbicides. For blanket swathes wider than 6 metres, units must be supported on the ends to prevent them hitting the ground.

The principle has also been used to prevent seed-set on taller grasses such as ryegrass in clover pastures. This could have significant benefits over spraying as the two most commonly used herbicides, glyphosate and paraquat, can cause significant damage to clover or medics.

Control of weeds is an on-going battle and can be made cheaper and more environmentally friendly with the use of blanket wipers. Brad Rayner is a Technical and can be contacted at the address provided.
Bracken was the target of a blanket wiper used at Margaret River.

Officer based at South Perth on (09) 368 3336

The wiping technique could also benefit roadsides or national parks where many introduced weeds are invading the natural vegetation. This could apply to such weeds as Watsonia, African love grass, veldt grass, carnation weed, onion weed, wild oats, Cape tulip and Paterson’s curse.

Blanket wiper description

Blanket wipers can range from 2 to 10 metres wide depending on the type of equipment used. For greater flexibility in wet or boggy areas the blankets can be mounted on four-wheel motorbikes.

Ideally, the blankets should be made from materials that are tough, wet up quickly and do not absorb or retain large quantities of liquid. Front Runner fabric is strong and reasonably priced. It can be ordered though an upholsterer.

Two thin, full-width felt strips are sown the full length inside the blanket about 50 mm apart. They assist in distributing liquid over the lower portion of the blanket. A solenoid valve controls the flow of liquid. Cost for a 2-metre unit would be about $430 depending on the materials used.

Battle for farmers, with many weapons

Blanket wipers are an exception to this trend is the means of applying herbicides to taller weeds. Officer explains how it works.

Bracken was the target of a blanket wiper used at Margaret River.