

Epple Skattergun

– a new tool for weed management

The Epple Skattergun

The Epple Skattergun is an air compressor-powered device for shooting tebuthiuron herbicide pellets for control of prickly acacia and other weeds. Under air pressure, pellets funnel through a hose to the hand-held gun and are propelled up to 20 m. Pellets remain on the ground until dissolved by rainfall and the herbicide absorbed by plant roots.

The trigger on the gun allows for measured individual doses or can remain engaged allowing a constant flow of herbicide to treat medium to high density infestations. The Skattergun may be mounted for use on utility vehicles, tractors and some tray-equipped all-terrain vehicles. The Skattergun has a large hopper which is able to hold up to 80 kg of tebuthiuron pellets.

Field trials

Independent field trials were undertaken by the Department of Agriculture and Fisheries and Southern Gulf NRM through the War on Western Weeds initiative. The focus of the trials was the treatment of various densities of prickly acacia to establish weed-free buffer zones on fence lines.

The Skattergun was mounted on a tractor and was in use for 27 hours with the developer, Brett Epple, as the operator. Weeds on 93 km of boundary were treated to an average width of 20 m. Three intensively monitored trials were assessed in addition to sectional analysis of the areas treated (Table 1).



Image 1 & 2: The Skattergun (left) and in action for boundary weed control (right)

Table 1 Skattergun trial results - prickly acacia control on boundary fence lines

Prickly acacia density Plants/ha	Average herbicide usage kg/ha	Treatment speed		Treatment cost - machinery & herbicide \$/ha
		km/hr	ha/hr	
Low (<50 plants/ha)	1.12 - 3.75	2.6 - 3.43	5.19 - 6.87	37 - 40
Medium to high (50 - 400/ha)	4.98 - 7.94	2.78 - 3.57	4.16 - 5.36	82 - 123
Very high (800/ha)	13.5	2.82	2.82	259

Costs (GST inc): Tebuthiuron @\$16/kg, contractor including tractor and Skattergun @\$121/hour



Image 3 & 4: The Skattergun in action for boundary weed control

Optimal use

Trials demonstrated the Skattergun to be an effective means of tebuthiuron pellet dispersal, enabling relatively quick application particularly in areas of medium to high density.

Advantages

- The device may be used for the control of any weeds for which tebuthiuron is a registered herbicide
- Labour and time savings relative to manual herbicide treatments
- Treatment distance of up to 20 m from the operator
- Operator has direct control over which weeds are treated
- Operator may vary application rate according to weed density
- Residual benefits of using tebuthiuron products
- Hopper capacity (80 kg) can treat up to 10,000 prickly acacia of 1-3 m height

Disadvantages

- Cannot be used where tebuthiuron use is not appropriate such as watercourses, near native vegetation or on high slopes
- Moderate investment to purchase the device

Further information

Further information is available by contacting **SG NRM** (call **1800 676 242**) or **Biosecurity Queensland** (call **13 25 23** or visit www.biosecurity.qld.gov.au)