



INVERELL SHIRE COUNCIL in cooperation with
 BORDER RIVERS-GWYDIR CATCHMENT MANAGEMENT AUTHORITY
 Funded under Border Rivers-Gwydir Harrisia Containment Project
HARRISIA CACTUS HERBICIDE TRIALS BW3 – 9 DEC 2013 to 23 FEB 2015



On the Ed Billing Family property “**Bridgewater**”, Keetah Rd, Yetman NSW

(Trials conducted under APVMA “permit to allow conduct of small-scale trials with Agvet chemicals” PER 7250)

TRIAL BW3 site: Grass paddock adjacent to and south of Keetah Rd – near “Bridgewater” western boundary with “Boonal”

	Mixtures: All rates per 100 L water	\$ per 100 L approx	Litres applied	Spray time (mins)	Area Sq m approx	Visual assessment: % adverse impact on plant health (0 “no impact” to 100%: “appears to be dead”)										All mixes detrimental to on-site native trees – except as indicated...
						4 wks	9 wks	13 wks	17 wks	23 wks	32 wks	38 wks	49 wks	62 wks		
1	Metsulfuron 20g <i>Brushoff</i> ® plus 500 mL Hot-up®	6.00	200	26	6000	25	65	95	96	99	98	99	80	80	General observations at 62 weeks - below: Addition of Hot-up® gave the metsulfuron an extra edge initially. Subsequent regrowth from centre of one plant (1C) – not a good indicator, hence the lower score. Will monitor. No sign of life in any plants. No sign of life in any plants. No sign of life in any plants. Some plants dead, the rest struggling - Amitrole <u>still persisting</u> . This mix also effective on tree pear in this plot. (One plant in this plot 5E monitored for biocontrol impact) No sign of life in any plants but new growth on edge of treated plants 6B & 6D – unable to confirm regrowth or new plant without disturbance to plants. Will monitor. No sign of life in any plants. Minimal damage to on-site native trees Despite looking good initially, this mixture FAILED BADLY. Excessive regrowth. Despite looking good initially, this mixture FAILED BADLY. Excessive regrowth. No damage to on-site native trees No sign of life in any pegged plants – noted tainted small new shoots in 2 other plants. No damage to on-site native trees (This plot N side Keetah Rd, Euendoo boundary) Slow-acting mix <u>still persisting</u> . Variable results thus far but has been successful over longer-term at other sites. Minimal impact to on-site native trees	
2	Metsulfuron 20g <i>Brushoff</i> ® plus 100 mL wetter	3.00	300	27	4000	20	60	80	90	98	99	98	99	100		
3	<i>Ken-Zon</i> ® 350 mL + 15g metsulfuron + 500 mL uptake oil	11.16	300	27	3000	65	95	100	100	100	99	100	90	100		
4	* <i>Grazon Extra</i> ® 350 mL + 15g metsulfuron + 500 mL u/oil	15.25	300	29	2000	70	98	100	100	100	98	100	100	100		
5	<i>Amitrole T</i> ® 2 L + 15g metsulfuron (gen) + 100 mL wetter	24.23	300	31	3200	25	50	70	85	90	90	95	98	95		
6	Garlon Fallowmaster® 1 L + 15g metsulfuron	28.00	300	29	4000	50-80	60	100	100	100	100	100	100	90		
7	* <i>Tordon RegrowthMaster</i> ® 1 L + 100 mL wetter	56.00	300	31	4000	70	99	98	99	100	100	100	100	100		
8	* <i>Garlon Fallowmaster</i> ® 1.5L + 15g metsulfuron	40.00	300	28	4400	90	99	100	100	100	85	100	30	60		
9	<i>Amitrole T</i> ® 2 L plus 500 mL Hot-up®	26.50	300	31	3600	90	99	97	98	99	100	100	20	55		
10	* <i>Tordon RegrowthMaster</i> ® 1 L + 15 g metsulfuron (gen) + 100 mL wetter	60.00	400	42	4200	80	Not inspected	70-100	100	100	100	100	100	99		
11	<i>Ken-Trel</i> ® clopyralid 300g/L (same actives as <i>Lontrel</i> ®) 500 mL + 100 mL wetter	18.00	400	45	4000	20	40	40	70	65 23 May 2014	60 24 Jul 2014	95 3 Sep 2014	90 20 Nov 2014	90 23 Feb 2015		

All plots 40m wide except 10 which is 60m
Test areas and on-going site access - courtesy Mr Ed Billing...

*Herbicide donated by Dow Agrosiences c/- Emma Twine (Goondiwindi rep 0429 878 662). Ken-Trel & Wetter supplied by Southwell Contracting. Hot-up® donated by David Durkin. Marking pegs/other herbicide purchased through BRG-CMA Gwydir Shire Harrisia Containment Project funds. Spraying carried out by Southwell Contracting (David and Peter Southwell 0400 402 949) – paid from BRG-CMA Inverell Shire Harrisia Containment Project. Trials project supervised by Les Tanner, North West Weeds (0488 490 026). Five pegged plants in each plot - photographed each visit to record progressive herbicide (and seasonal) impact.

ASSESSMENT SUMMARY POST 23 FEB 2015 VISIT: Plot 2 metsulfuron-methyl on its own certainly the clear winner in this series, esp given the \$0.03 per litre cost (high-volumes required – risk to off-target plant species - another critical issue is application timing); **Plots 3 and 4** (*Grazon Extra*® versus *KenZon*®) both 100% and showing no final difference in this particular trial; **Plot 5** Amitrole at half recommended strength but with the addition of 15g metsulfuron almost does the job (and not finished yet) whereas in **Plot 9** Amitrol without the metsulfuron resulted in excessive regrowth (although the regrowth is showing the typical Amitrol yellowing effect). **Plots 6 and 8** *Garlon Fallowmaster*® has potential if assisted with metsulfuron?; **Plots 7 and 10** *Tordon RegrowthMaster*® have both been outstanding from Day 1, with the added bonus of no noticeable damage to trees – downside is the price but this may improve?; **Plot 11** *Lontrel* very promising over long-term – an added advantage is that this same mixture is effective on mimosa bush (*Vachellia farnesiana*), often also present in Harrisia areas. - *Les Tanner 11 Mar 2015 – for BRG CMA/Local Land Services North West.*