FARMACIST

Spray water guidelines and herbicide interaction

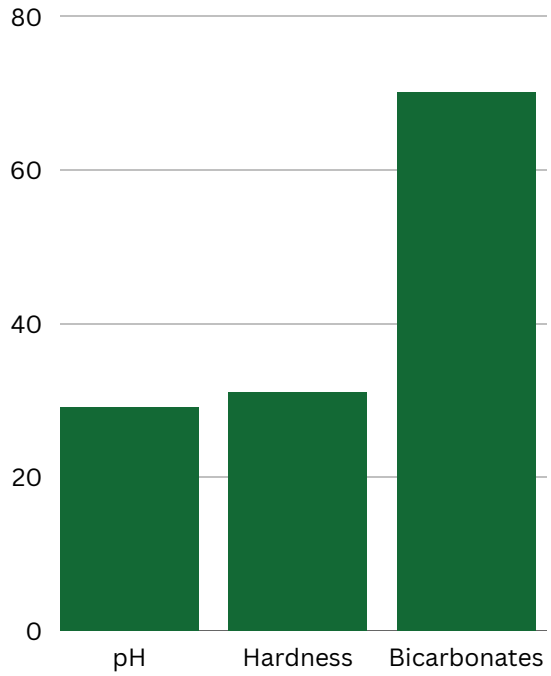
The water in your spray tank makes up to 99.9% of the spray mix and can have a huge impact on your spray jobs. Understanding your water and how it interacts with the herbicides you use can save you money and improve your spray jobs.

Water quality can fluctuate throughout the season, especially in bore water.

pH **greater than 8**	**HARDNESS** **greater than 250mg CaCO3/L**	**BICARBONATES** **greater than 150mg HCO3/L**
Most herbicides work best in slightly acidic conditions (pH 4-7) Exceptions: Asulox®/ Rattler® & Sulfonyureas (Sempra®) (best results in alkaline water)	Atrazine	2,4-D Amine
	Diuron	Haloxyfop (Verdict®)
	Glyphosate *	Acifluorofen (Blazer®) (Anecdotal evidence)
	MCPA - Amine (Agritone®)	
	2,4-D Ester	
	2,4-D Amine	

Source: GRDC Spray Water Quality Fact Sheet (Reprinted July 2014); Mixing Order and Water Quality - Spray Safe & Save, and Nufarm.

% of Burdekin Samples With Spray Water Issues



Source: Farmacist - Project Bluewater: Spray Water Analysis

Treatment Options and Amelioration

High pH	**Hardness**	**High Bicarbonates**
Acidify water with a buffering agent e.g. L1700	Treat water with tech-grade Ammonium Sulphate (AMS) e.g. Liase **Very important for Glyphosate*	For Haloxyfop: treat with AMS For 2,4-D Amine: switch to LV ester formulation (2,4-ester, MCPA, Fluroxypyr - Starane® Advanced) OR switch water source

Note: Water conditioners should always be added to the spray tank BEFORE adding chemical

Mackay Office - (07) 4959 7075
755 Homebush Road, Sandiford, QLD 4740

Burdekin Office - (07) 4782 2300
178 Queen Street, Ayr, QLD 4807

Far North Office - (+61) 488 980 090
105 Norman Street, Gordonvale, QLD 4865