

WATCH OUT FOR WATER QUALITY VARIATIONS AT SPRAY TIME

Farmers should be aware that water quality on their farms can vary widely throughout the season and from one source to another.

At spray time, they should assess and correct the quality of their spray water before adding an agricultural chemical to ensure the effectiveness of the spraying operation.

That's the advice of Graham Falconer, Senior Agronomist and Managing Director of Pro-Ag Forbes.

After 30 years with the Department of Agriculture and another nine with Pro-Ag Forbes, Graham Falconer understands water quality and its effects on agricultural chemicals.

He works with a range of mixed cropping farmers on properties spread over a 100 square kilometre area as far west as Condobolin and occasionally, Tilpa.

Mr Falconer said that because of constant weather variations, periodic water testing was not the most reliable method of assessing water quality.

"You can test your river or dam water today and the pH will be completely different tomorrow after a storm.

"You need to be able to assess and correct a water quality problem on the spot, at the time of spraying.

"When you pay a lot for chemicals you need to know they will work properly each and every time you spray."

Mr Falconer has been recommending the adjuvant, Primabuff, since 1983, as the fastest and easiest way to assess and correct water quality at the time of spraying.

Mr Falconer said that Primabuff offered the advantage of a colour indicator which quickly showed the pH of the spray water. Where water was too alkaline, an optimal pH range could be achieved by adding more Primabuff.

Mr Falconer said farmers should not assume that all water sources on farm would have the same quality.

"Every water source has a different pH and water will vary in pH and hardness from one property to the next," Mr Falconer said.

"If you're on the town water supply here, pH can vary from 7.1 to 7.3. Water stored in a concrete tank can also become highly alkaline over time.

"Bore water can have a pH as high as 8.7.

"Dam water will vary according to the soils surrounding it. We've got alkaline sodic soils on the flat country in this district but runoff from the hills will alter the pH from 7.5 to 6.5."

Mr Falconer said water pH could be quite deceptive without applying Primabuff to ensure optimum performance.

"I had one client who wanted to get the burrs out of his lucerne with 2,4D-B.

"I advised him to use Primabuff but he said he had good water.

"When he added the 2,4D-B to the tank it turned to toothpaste and clogged up his spray boom.

"The water pH turned out to be 8.4 and slightly saline as well. But the water looked very good!"

A high pH, indicating alkalinity, was one of the prime water quality factors affecting the performance of agricultural chemicals, said Mr Falconer.

"Dimethoate breaks down in 48 minutes in water with a pH of 9," said Mr Falconer.

"Glyphosate is also sensitive to alkalinity."

Adding Primabuff to alkaline water acidifies the water which turns a pink-red colour at the right pH level (4.5-5.0).

The spray water is buffered at about pH 3 and no further change will occur.

"Remember when using Primabuff to lower the pH of your spray water it should always be added first and the water adjusted to the desired pH before adding your pesticide," concluded Mr Falconer.



Senior Agronomist, Graham Falconer warns farmers to correct the pH of their spray water with the adjuvant, Primabuff, before adding farm chemicals to the tank to ensure their efficacy at label rates.