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## SUBMISSION FOR THE MURRAY DARLING

What has been overlooked in the Murray Darling irrigation area discussions are the importance of the soils. Healthy soils go hand in hand with our limited supply of water.

The calcium and magnesium percentages if corrected show a 10 to 20 percent increase in water efficiencies. Thinking outside the square if you put somewhere between 10 to 20 percent of water back to the environment without affecting the productivity of the irrigation areas, what a result for rural Australia and every Australian.

When the soils are in balance the calcium magnesium levels are the same as your blood and the microbe activity is at its highest. One unit of nitrogen will grow one bushel of corn in a well balanced soil. When the soils are out of balance it takes one and half units of nitrogen to grow one bushel of corn. (The fertilizer companies do not publicise this and this is why they work on ph and not percentages.)

Lime also improves plant emergence, structure of soil and water infiltration in high magnesium soils which makes up most of the irrigation areas of the Murray Darling. In my opinion the Murray Darling has to run independent trials throughout the catchment area. This in time will pay for itself because of the increase in productivity and show the greatest water efficiencies. It is possible in some areas 80% of the water can maintain our present production levels.

This model could also be used for Queensland and the Great Barrier Reef where they have a nutrient problem from fertilizer or the salinity problem in Western Australia.

If I can be of any further assistance I am only too willing to do so as I have a real passion for theMurray Darling

I have spent the last 30 years working with these soils and the results can be without doubt duplicated in the MacQuarie Lachlan Murrumbidgee and Murray rivers.

Six years ago I sold my business Hazelton Groundspread which from a humble start the business went on to become the largest lime spreading contractor in NSW. The key to our success was to spread lime evenly as spreading too much in the spread pattern can be detrimental. I cannot stress how important this is. This is the reason for the varying results in the bulk of the trial work that has been done.

To achieve these results we added 8 percent moisture to the lime on a purpose built conveyor, this gave a consistent product with minimum dust. The spreading was done with modified spinners of our design giving double overlap behind the spreader.

I can organise the farmers, agronomists and the science to show you the results of what has been achieved. My humble opinion is that every avenue must be looked at, we can do things better and maybe have a win, win situation.

I have a great passion for the Murray Darling and am only too happy to be of assistance.

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## **Richard Hazelton**