



Organic farming complemented by SMART Watering

SMART WATERING CASE STUDY: MARY RALSTON

Growing their own food just outside Methven provides Mary Ralston and Kem Johnson with the perfect lifestyle.

The writer and ski guide moved to the eight hectare property 24 years ago. The idea was they would develop a small-scale organic horticulture and farming enterprise, while continuing with their day jobs.

Right from the beginning the couple started from scratch. "The paddocks had been farmed conventionally and there wasn't a vegetable garden or any garden at all around the house. It was mostly lawn," says Mary.

Today perennials dominate the half hectare now planted with trees, flowers, shrubs, an orchard and large vegetable beds. Complemented by a generous tunnel house and green house, the home block enables Mary and Kem to be self sufficient year-round.

"We run out of onions at some point but that's about it," says Mary.

As well as feeding themselves, surplus herbs and vegetables are sold to local cafes and restaurants and basil goes to locals keen to make their own pesto.

Managing an organic property means constant hands-on activity so finding ways to reduce the workload is important.

Irrigation systems are used to distribute water in the orchard and green house and rainwater is collected in a tank to supplement the stock water supply.

"The apple trees have drip irrigation, like a soaker system, which is quite an efficient way of getting water out. And I use T-Tape in the green house, which soaks in gradually, nice and even. The rainwater tank supplements the stock water. It's only 1000 litres, but if it starts to rain I can put it on and connect it to the watering system."

"We're quite lucky with water. We have good access to the stock water race and are only restricted by the size of the pipe you can use. So you can't suck it dry. I'm quite careful with how much we take though as we have to pump water into a tank and then out again. Because of electricity costs as well as trying to use minimal water, I try and minimise how much water we use."

The key to organic gardening says Mary, is healthy soil and maintaining good soil moisture.

"I use mulching as my main tool to keep moisture in the ground. I also do what I can to increase the organic material in our soils which helps to maintain soil moisture. Using compost, mulching with peastraw in the vegetable garden and putting linseed straw around the tussocks and shrubs really helps keep the soil moist."



Mary Ralston



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Mary Ralston's gardens and greenhouse

Water management is all about applying water at the right time.

"I'm careful not to water when it's hot. I normally irrigate in the evenings when the sun has gone down and definitely not when it's windy."

Mary believes crop choice and plant species will become more of a focus as people start to switch onto sustainable approaches to growing food.

She also questions the need for large, regularly mowed lawns.

"If people keep their lawns higher it actually encourages better root growth beneath and they won't need as much water."

While Mary understands the need for water restrictions, she's concerned they affect the viability of vegetable gardening.

"It's really important to encourage vegetable gardening. It's good exercise, it's good for the kids to see where their food comes from and it's a really valuable part of life to grow some of your own food. I can see why water restrictions are sometimes necessary but they challenge home gardeners. People go 'it's just too hard'."

Vegetable gardening is easier when people mulch to maintain soil moisture and look for alternative sources of irrigation water when restrictions occur.

"It does seem crazy to use perfectly good drinking water on gardens. It would be good if we could have a secondary source of water for gardens, such as stock water, grey water or rain water."

Learning about crop needs also breeds success. "Don't go and plant lettuces for example along the western side of your house. Keep hot spots for peppers and tomatoes."

The couple employ all these principles, not only in their home vegetable garden, but in their pasture management.

"In our paddocks we try to use deep rooting pasture species like cocksfoot and tall fescue grasses and herbs like chicory and plantain."

"We have a policy of grazing when our pasture is quite mature. So the animals leave behind and trample in quite a bit of organic material, such as the stalky bits. This is really good for the soil. We then leave the pastures for quite long time before re- grazing. This encourages good root depth."

While their property close to Methven receives good rainfall, there's no substitute for being able to apply additional water but Mary wants people to think about how they conserve and use water.

"It would be good if we had more education around not just the use of water outside, but inside the home. Not leaving the tap running, shorter showers, all those basic things. To help develop a real awareness that water is a really valuable resource."



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