

A cover: what a dam fine idea

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Barossa viticulturist, Anthony Scholz believes the investment in a cover over his dam, specific mulching practices and using moisture monitoring probes, are the keys that helped him manage water in his vineyard in 2007-08.

Since the establishment of the Scholz Family Vineyard in 1998, Scholz has been able to adopt many water-saving practices at the property, including building a 30ML, fully lined dam with a cover in 2003.

This investment provides Scholz with a year's water supply on hold, and he is able to buy water in the 'off-peak' season at low prices. On a more tangible level, once the water is in the dam it is not lost to evaporation.

Scholz said the dam has really helped.

"With this dam, I specifically know that I have the water if I need it, so there is a lot of security in that," Scholz said. "The dam is technically a 30ML dam, but with a cover, it can be filled to hold 42ML."

"The water in the dam comes from rainfall and the Murray River. Once the tanks on the property are full, the water is gravity fed from the tanks into the dam.

"The water from the Murray is part of an irrigation scheme called BIL (Barossa Infrastructure Limited). Approximately 200 growers from the region (across the valley) use this water, but not all have the advantage to store it," Scholz said.

Scholz said the cover is very important, as without it, he predicts a loss of 6ML a year to evaporation (when the dam is full).

"Usually when water evaporates from a dam, it leaves salt behind, so the salinity levels are usually high," he said. "With the cover, there is no evaporation, so there are hardly any salinity issues in the water (apart from the possible salinity problems in the Murray water itself)."

"The cover in an average year will also catch around 5ML of rainwater, which is not lost to evaporation. But what I like is that I can purchase water at a low premium and store the water at times of low demand," he said.

In addition to the dam and cover, Scholz said he will be trialling straw mulch on a 12ha block as a water-saving management practice. If the straw works well, he will mulch the entire property.

"I will try and buy straw from a local farmer as the availability of straw is quite good in the Barossa," he said.

Scholz also grows covercrops in all his vines. In the younger vines, he grows oats, and in the older vines, triticale. "I find that



triticale is a 'coarser' crop that lasts longer which is why I grow this in the older vines," he said.

As a means of measuring moisture levels in the soil, Scholz uses "Diviner 2000" moisture monitoring probes. He has five sites on a 22.5ha block.

"The soil moisture probes are fantastic, but they are not 'fool proof'. You still have to do a 'visual', and look at your vines. But they certainly tell you when the moisture is going out," he said.

Scholz said conserving water is also about remaining viable.

"The two work together, and we are striving for both," he said. "To me, conserving water is a year by year proposition and it is different for each grower in each region."

Anthony Scholz's water-management story was presented as a case study in the Barossa earlier this month as part of the GWRDC Water & Vine: Managing The Challenge program. Winetitles journalists and staff assisted the GWRDC with research, interviews and presentations of the regional case studies. The Australian & New Zealand Grapegrower & Winemaker will feature more of these articles in future issues.



The sand weight that helps keeps the cover on the dam.



Anthony Scholz measures moisture levels.



The Shiraz vines at Anthony Scholz's vineyard with triticale mid-row crop.