Hydrosmart systems work wonders in the Barossa Valley

Like many irrigators around Australia, father and son John and Mark Jenke had the problem of insufficient good quality irrigation water for their Barossa Valley vineyards. Rather than continuing to buy Barossa Infrastructure Limited scheme water, which was becoming very costly, they decided to utilise their bore water allocation as they had done in the past.

Neither John or Mark were using their bore water at the time as both bores had earlier shown the potential for large salt stress issues, and had previously caused significant dripper blockages due to the build-up of iron and calcium scale.

When searching for a solution, the Jenkes discovered Hydrosmart, an Adelaide-based company that manufactures a unique water treatment technology. They were advised that the Hydrosmart system would be a low-cost sustainable solution, and in June 2008 both growers installed Hydrosmart systems to their bore-fed irrigation lines.

"Cleaning drippers is a costly and time-consuming job, however, during the 2009 vintage, we had no need to get out in the heat to do this," John and Mark said after using the system for one season.

"The Hydrosmart unit was installed directly after the pump and water meter treating the water just prior to going through the irrigation pipes. The benefits have justified the purchase price and the system only costs about $A12 ($NZ14.60) a year to run.

"Our vines performed very well in the 2009 vintage. Despite three harsh summers and minimal winter rains, we were pleased with our yields. The health and vigour of our vines resulted in exceptional canopies, long canes and healthy leaves with no sign of salt stress.

"We believe that the Hydrosmart unit has helped break down the bonds of the salt minerals and calcium crystals in the bore water, keeping drippers flowing and the plants utilising all the water we give them."

Hydrosmart's frequency approach targets the electron bonding ability of minerals such as calcium, iron, sodium chloride and other molecular 'giants', reducing them to a smaller non-bonding elemental state providing solutions to a wide range of water issues.

This means that for Hydrosmart customers like the Jenkes, the calcium and iron scale that was previously causing problems within the irrigation system is now a bio-available nutrient source in the soil.

For more information, visit www.hydrosmart.com.au or call 1300 138 223.

Fendt releases Vario specialty tractors with CVT

Fendt is once again proving to be a leader in tractor technology by offering its new Vario 200 Series range that will take productivity to new levels. The Vario 200 Series is the first and only speciality tractor to offer a continously variable transmission (CVT) that produces maximum efficiency and minimal fuel usage.

Ideally suited to vineyards, orchards and other specialty applications, the new Vario 200 offers enormous advantages with exceptional manoeuvrability, a narrow design and an ergonomically-perfected control centre.

Five models make up the range from 70 horsepower to 110hp in both cab and roll-over protective structure (ROPS) options, and feature a newly developed water-cooled, three-cylinder common rail engine from AGCO Sisu Power. The short design of the three-cylinder engine allows room for a new cooling unit without comprimising the compact design of the specialty tractor. The newly designed cooling system has large intake areas which result in less dirt in the radiator and optimised cooling performance, even under extreme operating conditions. The engine features a speed-independent common rail high-pressure injection system, as well as fully electronic engine control.

The CVT allows the tractor to work at optimum speed during all operations. The transmission has only one driving range for simplicty and allows working speeds from 20 metres per hour to 40 kilometres/hr, including stepless, wear-free shuttling.

The top speed is achieved at a fuel-saving 1750 revolutions per minute (rpm). As there is no power gap and the driving speed can be adjusted to any kind of work independent of the engine speed, area coverage can be increased by up to 10% with fuel consumption minimised.

The tractor management system (TMS), which has been used successfully for many years in Fendt's larger tractor ranges, enables even more economical driving by harmoniously controlling the engine and transmission together. The driving speed is selected while the engine speed and transmission setting is automatically adjusted so that the tractor is always operating at an optimum level. This reduces stress on the driver and also reduces fuel consumption by up to 10% during operation.

For more information on the new Fendt Vario 200 Series, contact your local dealer or visit www.fendt.com.au.

Restrictions drive growers to explore water-saving technology

WiSA irrigation management systems are intelligent farm and water management systems that deliver 'real time' water savings.

Soil moisture probes and weather stations radio data back to a central computer containing WiSA software, and parameters are set to suit individual farms, which operate pumps, valves and filters accordingly.

"Research and development has been the key to getting our product to work across different soil and plant types," WiSA managing director Graeme Wright said.

"We have created a flexible system to meet any on-farm requirement.

"Everything operates in 'real time' and we can read and act on it straight away."

The technology is equally applicable to all farm types and is currently being used by grape, olive, fruit and vegetable, and grain growers. Importantly, systems can be tailored to suit specific needs.

Andrew Peace Wines at Piangil in north-west Victoria is using WISA's wireless irrigation technology to reduce the effects of frost and heat stress on its vines. The company installed the system 10 years ago with a focus on optimising crop quality and reducing water use.

"Our WiSA system has been designed to suit the specific needs of a 220-hectare vineyard that's still expanding," Andrew Peace said.

"Every aspect of the system is integrated to ensure maximum efficiency; for instance, using one radio network instead of the two or three that many other systems utilise has resulted in a capital cost saving as well as reduced maintenance costs.

Wright says WiSA irrigation systems are assisting primary producers save time, money and scarce resources, while helping to improve quality and yields.

"Effective water resource management is a vitally important issue nationwide, especially in drought-affected areas," he said.

For more information, visit www.irrigatewisa.com.au.