

## **Tasmanian Wine Show's University of Tasmania Foundation Honours Scholarship 2010**

### **Mr R Butler**

*"Effects of spur and cane pruning on canopy, yield components and fruit quality of cool climate sparkling wine varieties"*

Aimed at encouraging the emerging crop of talented agricultural scientists to consider a future in the local wine industry, the Tasmanian Wine Show's University of Tasmania Foundation Honours Scholarship is awarded each year to a promising honours student.

The 2010 recipient Richie Butler's study investigated cane and spur pruning on pinot noir and chardonnay at the Tolpudde commercial sparkling vineyard in the Coal River Valley in southern Tasmania.

Mr Butler, who hails from Barwon Heads on the Bellarine Peninsula in Victoria, is a fan of Tasmania's two key grape varieties, and had a desire to conduct his research in a cool climate grapegrowing region.

"I have a fascination for pinot noir. I'm intrigued by the variety—word has it that Tasmania grows the best and chardonnay is my favourite white variety", Mr Butler said.

He has worked in the industry since graduating from LaTrobe University in 2005.

His most recent role was as site viticulturalist for Foster's at Penfold's Robe vineyard on the Limestone coast. "We got high-quality fruit at Robe from spur pruning", he said.

Research has been undertaken on pruning methods previously, however Tasmanian growers were keen to see local findings.

"Dr Jo Jones had researched fruitfulness in pinot noir and growers had other facets they wanted looked into, specifically pruning of pinot noir and chardonnay", he said.

Spur pruning is up to three times less costly than cane pruning and takes less time. The study looked at the effects on canopy, yield components and fruit quality. The canopy was highly affected due to differences in bud burst.

Powdery mildew can be a problem in Tasmania, with shade, humidity and wind flow being factors.

"Bud burst was phenomenally higher with spur pruning—130% versus 70%", he said.

"Significantly higher shoot numbers leads to a thicker and denser canopy."

Despite the differences in shoot numbers and canopy, yield for both varieties was not affected.

Apical dominance was quite prevalent in cane pruned vines, while spur pruned vines had much more even fruit distribution.

"Uniform growth is better for ripening, spraying and all-round management", Mr Butler said.

The one-season study revealed that fruit quality was not significantly affected, however it is widely accepted that research would need to be conducted over a few years in order to get a long-term view of the spur pruning method's effectiveness in a variety of seasonal conditions.

"Pests and disease pressures could be significantly higher in other years", he conceded.

Mr Butler concluded that despite cane pruning being more expensive and laborious, it was more reliable for the results Tasmanian growers want.

"Additional canopy management practices, shoot thinning and disbudding would need to be employed in conjunction with spur pruning. Canopy management is very important in Tasmania", he said.

Mr Butler's honours thesis paper is a 30 page summary of the key findings, titled *Effects of spur and cane pruning on canopy, yield components and fruit quality of cool climate sparkling wine varieties*.

He is currently working the northern hemisphere vintage in southern France at Domaine de la Baume in Languedoc-Roussillon.

Reproduced from an article written by Tasmanian Wine Show Society President, Phil Laing, that appeared in the September 2010 edition of *GrapeGrowers and Vignerons* magazine