

Infrastructure for improved livestock and land management

Escombe Downs, Winton

BACKGROUND

Peter and Tammy Ashman are carrying on the family tradition on Escombe Downs, which was drawn by Peter's grandfather in 1926. Situated in open Mitchell grass country about one-third of the way between Winton and Hughenden in North-western Queensland, Escombe runs both cattle and sheep. They have developed their infrastructure to ensure better grazing distribution, improved carrying capacity, the ability to wet season spell and enhance their livestock management.

The Escombe holdings incorporate three adjoining properties for a total of 15,300 ha. The enterprise is evenly split between Merino sheep breeding for wool production and cattle breeding to turn-off weaners and background cattle up to 400 kg.

Livestock enterprises

Escombe's sheep enterprise is based on medium-fine wool (19.5 to 20 micron) with an increasing focus on good meat characteristics. Shearing is in July, lambing in March and joining in October with rams from a stud in the Mitchell district. Wool is sold through a private broker in Sydney.



Escombe Downs runs a mix of Braford cattle and Merino sheep.

Escombe's Braford cattle enterprise is moving towards selling more weaners to allow more cows to be run for a higher turnover overall.

There are two rounds of marking and cull heifers and steers are currently sold through Roma sale-yards in early April each year.

Natural resources

Average annual rainfall is 380 mm with the lowest received about 90 mm and the highest nearly 1250 mm. Escombe is on clay soils, predominantly open Mitchell grass downs with trees restricted to ridges growing white wood and vine trees. About 20% of the country is frontage associated with Mills and Manuka Creeks.



Peter Ashman digging to reveal Mitchell grass roots in a spelled area at a field day in 2011.

There has been a concerted effort over the last two decades to change paddock layout and size and water distribution to improve livestock and land management.

Infrastructure development

When Peter and Tammy took over the management of Escombe there were two dams and five ageing sub-artesian bores, all of which have since collapsed. With maintenance of these old bores becoming increasingly expensive, and water points not ideally suited for even grazing of the paddocks, a new bore was established in 1996. The water rises to within 17 m of the surface, and is pumped at 11,400 l/hour (2500 gallons/hour) for 10-11 hours at night to paddock storage tanks.

This single artesian bore gravity feeds 43 troughs through 100 km of poly pipe across the holdings, providing an assured water supply. He plans to extend the number of waters with an additional 18 km of pipe in the future.

Waters are now more evenly distributed within the 19 paddocks which have fenced to better account for land types and herd and flock sizes, as well as making it easier to move stock to spell paddocks. The paddocks range in size from 265 ha to 2300 ha, with only six larger than 1000 ha. The combination of better water distribution (e.g. three waters within a 1200 ha paddock) has lifted the carrying capacity by making the whole paddock area readily accessible and more evenly grazed. A rule of thumb for cattle is to ensure they do not have to walk further than 2 km to water. Whilst they can walk out further for a feed, most of their grazing activity is confined to 0-2 km from water.

Stocking Rate management

Stock numbers on Escombe are set according to the seasons, and available feed as opposed to the size of the paddock and the numbers of stock historically run there. Stock number increases are also influenced by the cattle market and financial considerations. In 2011, Peter regarded his stocking rate on the 15,300ha of Escombe (5000 sheep and 1300 cattle) as high but with plenty of feed to safely carry the stock following on from a couple of above average rainfall seasons.

In the case of a failed summer, stock numbers would normally be reduced in April, starting with cattle. In Peter's case he retains sheep—especially younger ewes—as sheep are cheaper to feed and more difficult to replace at the end of a drought than cattle are. Peter progressively sells off old cows, and moves down the age groups, perhaps with younger cattle agisted depending on the availability of reliable country.

Herd management

Cattle and wethers are run in the same paddocks at a similar overall Adult Equivalent (AE) or dry sheep equivalent (dse) rating. An AE is a 450 kg steer at maintenance; one dse is a 50 kg wether at maintenance with one AE worth 9 dse. Where

Peter runs 120 cattle he would run the equivalent AE in sheep i.e. 800 to 900 wethers.

Ewes, weaner sheep and lambs are run as separate flocks.

Wet Season Spelling

Peter did the *EDGE*network Grazing Land Management course in 2006 and says that his implementation of wet season spelling was influenced by that training. In addition he also monitors his grasses more closely, has a better understanding of the importance of tree cover and its impact on grass cover and yield and is able to more accurately budget the feed available.

The infrastructure development on Escombe has made implementation of spelling much easier over the last 3-4 years. For instance, one 2200 ha paddock had been declining in condition and Peter removed the stock and began spelling the paddock in November 2011. The stock were transferred to a 1200 ha paddock, which he was confident could carry the stock based on his estimate of available feed. The 1200 ha paddock pasture yields were high, with the paddock having been only lightly stocked since 2004. This had also resulted in a lot of old rank grass, which the cattle were able to graze to open up the pasture and provide better access for the sheep. The improved water distribution, with three waters in the paddock, also promoted more even grazing of the pasture within the paddock. Peter started a program of regular spelling across four weaner paddocks in April 2012, including winter spelling to promote the growth of winter herbage following winter rain. Peter says that planning for spelling must be flexible under the highly variable rainfall conditions on Escombe.

Management burning

Peter has trialled burning in a couple of dry swampy areas in his frontage country. His experience has been that there is good response and within three to four weeks there is a good body of feed, when it is then safe to start grazing. The pasture has recovered and provided good quality feed as a result. The fires have been lit in the late afternoon on a day with cloud cover to promote a more easily contained cool fire.

Weed control

Fencing has also been used to improve weed control. Noogoora burr had been a costly weed in the creek channels, with considerable sums of money spent to try and control it to reduce the amount of burr contamination in the wool. Peter has fenced off the channels to exclude sheep but allow access for cattle, with sheep now run exclusively in the Open Downs country. This has improved wool returns through reduced contamination, reduced the spread of burr seeds and reduced the cost of chemical control. It has also reduced mustering time and costs, as there is no longer the need to move sheep out of the channels at the start of the wet season.

Fencing the channels has also reduced the spread of prickly acacia seed across the downs by cattle and allowed for more effective control, resulting in the property being almost 100% prickly acacia free.

The fenced-off channels include adjacent downs to provide high ground for cattle shelter and grazing when the channels are running.

For more information

For more information about grazing management you can:

- Attend a Stocktake pasture monitoring course
- Attend an *EDGE*network Grazing Land Management workshop
- Contact your local DAFF FutureBeef extension Officer on 13 25 23 or beef@deedi.qld.gov.au
- Visit the FutureBeef website <http://futurebeef.com.au/> for more case studies, fact sheets, videos and information
- Visit the LeadingSheep website <http://www.leadingsheep.com.au/>
- Search the Desert Channels Digital YouTube channel at www.youtube.com/user/DesertChannels for 'Managing Mitchell grass' to find practical videos on how graziers implement spelling.

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