

# Grazing management for drought recovery

Spoilbank Longreach

## BACKGROUND

John and Judy Sedgwick have been on Spoilbank long enough to experience five major droughts and the amazing capacity the land has to recover with above average rains—but according to them it's not just about the rain. They are strong advocates of reducing stock numbers during drought and spelling the country to kick start the recovery before re-stocking. Their ability to maintain a profitable business over many decades is evidence of the success of this approach.

Spoilbank was purchased by John's father in 1922 and named based on his WWI experience in the Ypres region of Belgium. It is named after the banks of 'spoil' thrown up from canal construction, and now shares its name with the Spoilbank Commonwealth War Graves Commission Cemetery in Flanders.

Spoilbank is 120 km due west of Longreach. It is an aggregation of three properties—Spoilbank, Avondale and Arndale—with a total area of 17410 ha.



*Judy and John Sedgwick, Spoilbank*

## Livestock enterprises

Spoilbank's sheep enterprise is based on medium-wool Merino sheep, breeding wethers for wool and ewes for wool and to maintain the flock. Ewe and wether lambs are classed based on

wool quality and a strong frame and sold as hoggets. All ewes are sold as cast for age by 6 year old. A cattle breeding enterprise of 50-100 head is run to complement their wool enterprise with progeny sold locally as forward stores.

## Natural resources

Average annual rainfall is 348 mm but with very high variability. Spoilbank is predominantly open Mitchell grass country with areas of pebbly gidgee, frontage and some hilly jump-up country.

## Infrastructure

Spoilbank is divided into 15 main paddocks with four holding paddocks. There are 17 waters and 34 water points. The sub-artesian bore water is suitable for stock—but relatively sodic and lower quality than surface water. This leads to a reliance on dams, with about 30 months supply.

## Business goals

John and Judy's business goals are built on running a profitable business in the long-term, which includes looking after the country to be able to operate sustainably. Their low and variable rainfall makes the area relatively marginal, according to John and Judy, and means adapting their enterprise and management to suit the conditions rather than attempting to manage to a set formula.

Their business is also tailored to their human resources, with John and Judy running Spoilbank themselves most of the time. Contractors are employed for shearing, fencing and lamb marking. John and Judy are moving towards the end of their career on the land, and their goals have adjusted to account for this. Their drought management policy of conservative stocking and wet season spelling has ensured their land is in good condition, and improved the manageability of their property as a whole. They are better positioned to balance the number of stock needed for a sustained income, with lower

management inputs and continuing to maintain their land in good condition.

John and Judy are in a position to reflect on the difficulties a young family would face in taking on debt to buy a property like Spoilbank. They believe it could be accomplished through actively managing stock numbers—increasing both sheep and trade cattle in good seasons to boost income but being prepared to drastically reduce numbers in drought years and incorporating spelling to encourage drought recovery.

## Stocking Rate management

John and Judy estimate that Spoilbank could safely carry 15,000 sheep in better seasons, and they have run up to 12,000 for short periods. In 2012 they were running 6,500 sheep in seven mobs—in line with their goal of keeping their operation manageable by themselves and to ensure continued improvement of the country. Importantly, this makes spelling much easier to manage. They are strong advocates of conservative stocking so that they have paddocks ready for stock to be moved into when the stocked paddock requires a rest.

## Drought grazing management

### Early de-stocking

John and Judy start reducing stock numbers early when a drought seems likely. According to John 'There is an old saying—*Sell and regret but sell!* In our experience stock will always become available within 5-6 months of the drought breaking as people are attempting to maintain their cash flow.' The decision to sell is based on protecting the pastures and land, but also considers the availability of their better quality dam water. Spoilbank has enough water in the dams for about three years, but the Sedgwicks don't want to have to use only bore water in the case of an extended drought, as this would also reduce animal productivity.

Agistment is a key strategy for reducing Spoilbank's stock numbers during drought. John and Judy have long-standing arrangements with people they trust to take good care of their

livestock. They have access to spread of properties which helps to maximise their chances of securing agistment with reasonable feed and water during drought.

## Spelling for drought recovery

In addition to reducing stock numbers during the drought to reduce the impact on the pasture and land, John and Judy spell their country at the end of the drought by delaying restocking. They wait until the Mitchell grass has responded well and seed has dropped following wet season rain. According to Judy 'You need the seed going back into your country otherwise you end up with Flinders grass—more annuals and not the preferred perennial Mitchell grass.' Recent scientific studies agree, having determined that during a drought the soil seed bank is often depleted and needs to be restored.

According to John and Judy, if stock are brought home too early they will further deplete the Mitchell grass seed; with cattle grazing the seed heads of the perennial grasses and sheep eating the fallen seed. This slows the drought recovery process. Their preference is to spell their country until the pasture indicates it is ready to be restocked. 'You've got to get the vegetation and seeds going back through the soil. You can re-establish Mitchell grass by keeping the stock off it.'

## Wet Season Spelling

In 2012, John and Judy are spelling over half of Spoilbank, with only seven of their fifteen paddocks stocked. Both John and Judy are quite adamant about the necessity to spell their country. At any one time they are utilising about half their property, depending on how many stock they have.

## Approach

According to John there is no set formula to spelling in a marginal rainfall area, 'it is not possible to rotate your animals according to a set formula—you have to know your country'. He advocates adopting a conservative stocking rate and always having some paddocks spelled to make it possible to respond to changing conditions. He uses practical indicators to

determine when a currently grazed paddock needs spelling. He considers:

- The condition of the country in currently stocked paddocks
- The condition of the country in spelled paddocks
- If sheep have been over-grazing patches within a paddock
- The nature of the season, including where recent rain has fallen and the likelihood of further rain
- How quickly the pasture is being eaten down
- How much of the pasture yield remains to provide cover and a good response to rain
- The pasture yield in the spelled paddocks
- The pasture quality and ability for stock to maintain their diet quality in the paddocks being grazed and being spelled.

In situations where sheep have continuously returned to patches leading to over-grazing and a loss of land condition, John has fenced off these areas to encourage pasture recovery. 'We fence out north-east corners and ridges where the sheep tend to congregate and over-graze patches'. John and Judy use the fences as a tool to spell and start the recovery process but include stock access from adjacent paddocks so grazing can prevent the pasture becoming overgrown and rank. Allowing pasture to become rank not only reduces feed quality, but can also hinder the recovery process—especially for Mitchell grass.

John and Judy regularly observe their pastures during the water run and mustering to decide which paddocks need spelling and which are best able to take the stock. In addition, permanent photo-sites have been set up in heavily grazed areas to monitor their longer-term recovery and decide which areas need spelling.

## Using sheep grazing behaviour

John and Judy have spent decades observing the grazing patterns and behavior of their livestock. They have noted that the young weaner sheep, up to 3yrs old, are more inclined to spread out and graze more evenly. The older sheep, from 3 to 4yrs and above seem more inclined to become habituated and preferentially

graze one particular area. As Judy observed 'Different ages tend to work a paddock differently and mixed sexes tend to spread out everywhere while the wethers tend to run in a mob'. So in the management of those animals there is consideration given to their grazing habits when it comes to making decisions about where that stock will be located.



*John and Judy make use of the grazing patterns of sheep*

They make use of the fact that sheep graze into the prevailing wind—in their case the north-eastern corners—but also tend to stay within the area they are used to. They move their sheep to a paddock adjacent to the area the sheep prefer. This means sheep in the new paddock tend to graze close to the NE corner of the paddock they were just moved out of, instead of grazing into the NE corner of the new paddock. This helps protect the NE corner of the new paddock, deferring the grazing for some weeks before the sheep start grazing into the wind in the new paddock. It also creates more even use of the pasture across the new paddock.

## Burrs as protection?

John has also made the observation that in one of their paddocks where there was a big stand of black roly poly there was also a strong recruitment of Mitchell grass seedlings. His observation was that the new Mitchell grass seedlings had been protected from grazing by the burr, allowing the seedlings to establish and grow. This effect has also been observed by other experienced graziers with soft roly poly—especially during drought recovery where roly poly is often the first plant to re-establish.



## Gidgee management



*Gidgee thickening on Spoilbank in April 2001 was severe.*

Gidgee thickening, re-growth and encroachment are on-going issues on Spoilbank. John and Judy have examined the historical records of their Arndale holding. There is clear evidence that it was originally open downs country with scattered gidgee trees in the 1940s prior to their taking over the property. The run of wet years in the 1950s lead to a rapid increase in the number of gidgee trees. Clearing permits were issued and areas mechanically cleared in 1989 and re-growth followed up in 2004. In 2001, the Department of Agriculture, Fisheries and Forestry estimated this gidgee re-growth reduced pasture yields by nearly 90%. Clearing this re-growth and establishing pastures in one paddock has improved the safe long-term carrying capacity from 600 to 1,500 dse.

John and Judy have observed that sheep will readily graze young gidgee seedlings. Seedling numbers can be reduced by grazing until they have grown more than two leaves—by which time a deep taproot has established which prevents the seedlings being pulled out. Sheep grazing appears to have helped maintain a naturally open woodland landscape—rather than an impenetrable thicket of woody weeds—in many areas. Sheep only browse larger gidgee shrubs and trees occasionally, which does not harm the gidgee.

## Other issues

Other challenges for John and Judy include Parkinsonia and noogoora burr in the channels of

their creeks and wild dog attacks on their sheep. They manage their weeds in collaboration with Desert Channels Queensland. Wild dogs have been managed through a syndicate of properties which have baited regularly since 1965 and employed a full-time trapper prior to then. John and Judy are also trialing donkeys for dog control. So far they are optimistic, as the sheep run with donkeys have not suffered any further attacks.

## 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](mailto: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](http://www.youtube.com/user/DesertChannels) for 'Managing Mitchell grass' to find practical videos on how graziers implement spelling.

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