



CARING
FOR
OUR
COUNTRY



Beef on a Small Acreage

Susan Davies: Beef and Horticulture

Areas Of Concern

- Lack of fencing
- Lack of shelter
- Eroded creeks and dams
- Low fertility
- Poor access
- Damage from over stocking



Late summer paddock and plantings



Benefits

- Easier management of cattle.
- Better grass cover.
- Shelter for stock and humans
- Improved water quality
- Improved soil fertility
- Improved stock health

Action Taken

- Fenced into 7 paddocks and built lane-way and culverts
- Repaired and fenced off dams
- Fenced off and revegetated creeks
- Created shelter belts
- Introduced rotational grazing
- Applied chicken manure and minerals
- Reduced stocking from 38 to 25 head



Susan's new bull



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Susan and pregnant Cows

When Susan bought her property in 2007 it had endured 10 years of drought and over stocking, the soil was very run down and compacted and there was virtually no internal fencing. There were 2 badly eroded creeks and 2 badly eroded dams with very poor water quality. The property also had rows of old Cyprus pines and a mature but neglected orchard.

Susan had a desire to take a neglected piece of land and nurture it back to life. While she was highly motivated and had some knowledge and experience, she decided she needed to expand her knowledge base and attend a number of courses. These included a Beef Cheque, a soil management and an Efarmer course.

The Efarmer course in particular enabled her to create a detailed plan for the renovation of her property which she could put in place over the ensuing years as time and resources allowed. With the assistance of Landcare Susan has steadily made that plan a reality over the past 5 years adjusting and refining it as she discovered the limits and idiosyncrasies of her property through a range of wet and dry years.

Susan describes herself as taking a peasant farmer approach, of regularly walking her land and coming to know it and her stock intimately, in order to make informed intuitive management decisions. She tempers this with regular soil testing and nutritional analysis of her pasture.

Who:	Susan Davies
Where:	Outtrim
Size:	25 ha
Enterprise:	Beef and horticulture. 25 head black angus herd and a fruit orchard.
Soil:	Fine silty loam.
Rainfall:	1000mm
Aspect:	Flat to slightly undulating

Revegetation and Water Quality



Revegetated creek line planted 2009

One of Susan's first priorities was to fence off and revegetate her eroded creeks. With the help of Landcare fencing subsidies, tube stock and volunteer labor Susan has done 3 large plantings in 2007-8 and 9 and has done top up plantings in subsequent years to fill gaps and increase diversity. As well as providing great habitat and filtering the water entering the creeks these diverse 18 to 20m wide plantings provide highly effective shelter belts.





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She is doing another large planting in 2013 to take in her last section of unfenced creek. This will ultimately be accompanied by several shelter belts between paddocks and will complete her vegetation, shelter and biodiversity strategy.



Susan's creek in flood

'If cows have shelter they use it.' says Susan. Like us they are mammals that burn energy to stay warm and shed liquid in heat. A sheltered cow is a happier, healthier and heavier animal than its exposed counter part.

Susan sees her indigenous shelter belts as far superior to the cypress rows she's in the process of removing. Indigenous shelter belts are nontoxic to stock and species such as melaleuca provide great alternative fodder as cows naturally keep the edges trimmed. Indigenous shelter belts are self perpetuating; suckering and dropping seed from around the 3rd year on. The diversity of plant heights provides shelter from canopy to ground level. This same diversity provides habitat for a large range of native birds.

Soil Health

Susan sees soil health as primary to her farming system. Everything is underpinned by healthy, fertile, biologically diverse and active soil. Healthy soil grows

healthy pasture and healthy pasture grows healthy animals. Healthy, well conditioned animals cost you less in vet bills and fetch better prices at market. With the help of the West Gippsland CMA Healthy Soils Program and Powlett Project CFOC Grant Susan has embarked on a continuing course of soil improvement.

Of course this optimal soil doesn't just appear after a couple of treatments. It's the result of long term commitment, trial and error and finding your way through the climatic spikes that can see your property go from pugged anaerobic bog to bone-dry concrete in a matter of weeks.

Susan's approach to soil is strictly biological, though she doesn't classify herself as an organic farmer as she still uses chemicals to control weeds.

Based on soil tests, Susan applies lime to the farm at a rate of 2.5 tons Per hectare to bring the ph from 5.8 to 6.0. This year she is also applying dolomite to redress a



An eroded water course prior to fencing and revegetation

magnesium deficiency. For fertiliser she applies chicken manure to half the property at a time at a rate of 8 metres per hectare so the stock have half the farm to graze during the 3 weeks it takes to absorb into the soil.

The above practices address soil chemistry and encourage soil biology, 2 of the 3 interrelated aspects of soil health, the 3rd being soil structure. Well structured soil is friable and relatively open with a good penetration of water and oxygen. This is of course quite an ask in sodden winters and bone dry summers, and is as much about





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grazing management as any mechanical procedures applied to the soil. When the ground has dried sufficiently after winter Susan goes over her boggy anaerobic paddocks with an aerator. She finds this is sufficient to switch the soil population from toxic anaerobic microbes to a helpful aerobic population who make soil nutrients available to plants and bring on a flush of new grass.

Grazing Management and Cattle Health

Soil management, grazing management, strategic vegetation for shelter, water quality and biodiversity interact to create whole farm health. With this in mind Susan must manage her stock in way that creates the least damage to her soil and maintains a cover of grass at all times. In turn she must manage her soil and pasture in a way that creates resilience to climate and grazing pressures. To achieve this balance she has reduced her herd size from the previous owner's 38 to 25 to cope with the sodden conditions of winter.



This reduced stocking rate allows her to keep the herd in her one dry paddock feeding out hay and silage while she rests the rest of her low-lying property in wet winter conditions. As she says 'Winter is the limiter on this property'.

During the majority of the year when conditions allow Susan rotational grazes her herd through her 7 paddocks as well as creating smaller temporary 'crash grazing' zones with movable electric fencing. This more closely mimics the natural bovine lifestyle. 'The cows soon let me know when they want to move paddock,' says Susan. They love to get on the fresh pick of new ground and quickly supplement their diet with some plantain or over hanging melaleuca.

Susan moves her stock at their whim but also to maintain 100% grass cover 100% of the time. 'I'm unhappy if I see bare dirt' she laughs.

Susan has made life easier for herself and her stock by creating a laneway down the centre of her property and putting in culverts through all her creek crossings and boggy areas.

Diversity and Enjoyment

For Susan deriving enjoyment from her time on the farm is as important as the cheque at the end of the day. It is after all where she spend a large part of her life. This can be found in the diversity of birdlife in her vegetation corridors, in the incremental increase in biological health across the farm and in the diversity of activities over the day and the year. For Susan this includes maintaining and harvesting her diverse renovated orchard. The produce from which she sells through the Grow Lightly Network.

