

Native Grasses.

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Our philosophy is to work with natural cycles and endeavour to implement regenerative management practices. Spring lambing and calving help match livestock needs with seasonal growth patterns. Resting pastures using large mobs, rotationally grazed through small paddocks, increases both animal production and pasture growth. We live in a knowledge based society and it is necessary continually upgrade and learn new skills.

Landscape architecture is a term to describe how we can manipulate our farm in ways to promote biodiversity and productivity. Our aim to actively manage up to ten percent of the farm mainly for biodiversity values, regenerating degraded and vulnerable areas, shows our commitment to this process and our appreciation of the ecosystem services provided by nature both on farm and down stream. A mosaic design including flora and fauna corridors, remnant vegetation, land care reclamation sites and agro forestry are woven into a holistic system that moves us toward our goal.

We practice rotational grazing, to enhance both livestock production and biodiversity values. The use of agistment allows us to extend the rest on our own farm. Our aim is to supplement the feed rather than substitute with grain. We use copra meal, a by pass protein, to feed the rumen bugs so that animals can use the high energy, low protein feed e.g. dry feed. Mineral supplements are provided to stock at important times such as late pregnancy and lactation. Bentonite is used as a buffer for the nitrates in capeweed to allow animals to access the available feed value, although capeweed is considered a weed it can be useful feed while moving the pasture to more desirable mix.

Ecological indicators including biological state, water and mineral cycles and energy flow help us understand where we are in relation to our goal of sustainable land use. A good biological state has a high organic matter and vigorous, high-density plants with extensive root systems with a broad distribution of plants, animal, insect and soil biota. The key to a good water cycle is the management of the top ½" of soil. Litter on a permeable, well aerated soil with high successional, (perennial) deep-rooted grasses capable of efficient water use, combined with sufficient rest and a well managed rotational grazing system. A good mineral cycle is indicated by a rapid turnover of a high volume of litter, minimum runoff and wind-blow, deep cycling of minerals, rapid breakup of dung, healthy root system on grazed plants, stable mulch and a porous soil rich in organic material. Man and other animals can only survive on the photosynthetic energy in excess of the plant's requirements. Good energy flow requires, a high proportion of broad-leafed grasses, high plant density with vigorous root system in a highly permeable, well aerated soil.

Soil balance is necessary for sustainable agriculture. Dr William Albrecht (1888-1974) was a Professor of Soils at Missouri University. As a biological scientist, he proved that nutrition was correlated to disease, not only in the soil but also in plants. He recognized and taught that soil chemistry and nutrition were directly tied to biology. Balancing the soil is the key to productivity.. A balanced soil will have a calcium, magnesium ratio of 7:1 and a phosphorus, potassium ratio of 2:1 When soil is well balanced it exhibits a pH of 6.5. Independent soil testing is necessary to establish soil nutrient levels and ascertain what elements and trace minerals, in what quantities are necessary to balance the soil over time. Soil aeration enhances plant growth by allowing air and water to move freely. Relieving soil compaction is one of the most effective methods for boosting soil health and productivity, and enhanced water holding capacity.

Fertilizer inputs can be used to manipulate pasture composition and productivity. Independent soil tests help us determine what fertilizer inputs are necessary to balance the soil. Inputs can be tailored to suit individual soils and can be energetically matched. Phosphorus (super and RPR), trace elements and Calcium (lime) are important inputs for a healthy productive soil.

Native grasses are well adapted to drought and if well managed are a valuable resource through dry spells and droughts. They also provide safe areas when faced with toxic exotic pasture diseases such as ryegrass staggers or ergot on paspalum. We value our yearlong green, (with adequate rain) weeping grass and wallaby grass which both respond well to grazing, are high feed value, respond well to increased fertility and are acid tolerant. Red grass and kangaroo grass are both summer active, drought tolerant, low acid tolerance but red grass has better feed quality and more able to respond to higher fertility than kangaroo grass.

Land use balance is based on soil types, aspect, fertility and rainfall. High input, high production country includes irrigation and creek flats, with exotic pastures. Medium high inputs for chicory, tall fescue and clover pastures. Medium inputs sustain naturalised pastures (a balance of native perennials, annuals, clover and exotics). Low inputs include degraded or fragile areas that are being rehabilitated and regenerated, including rocky recharge, fenced off streams, and degraded drainage lines.

Infrastructure and fencing are designed to allow efficient management of pasture and livestock. Solar powered and mains electric fencing has been extensively used for upgrading internal fences. Most new fencing is now four wire electric which will be superseded by 2-3 wire fences. Dams and creeks are the major stock watering points. Some dams watering up to 5-6 paddocks. A solar powered pump will provide flexibility in more highly managed grazing system through the use of stock troughs. A mosaic design has allowed integration of productivity and biodiversity values.

A self replacing fine medium wool flock is run, with surplus ewes joined to terminal sires. Angus cattle primarily for producing weaners, with an eye on flexibility to service other markets. A small area of agroforestry is grown, predominantly pruned pine trees and maculata. Off farm investments have

been valuable to smooth out climatic and commodity price fluctuations have provided superannuation and increased lifestyle choices. Life coaching accreditation is currently being undertaken, in an effort to improve communication skills and provide an opportunity for full self expression and an extra income stream.

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