Farm Management Strategies for Drought Conditions

Regular monitoring and snappy decision making is the key to protecting your property and livestock against the effects of drought.

Listed below are some strategies to help manage the impacts on your farm system.

Stock Water - Ensure your stock have sufficient good quality water on hand always. This is particularly critical for heavier classes of stock such as cattle and horses, that would show signs of dehydration within 12 hours on a hot day. Cattle require up to 45 L/head/day during summer and sheep require up to 5 L/head/day. Pregnant or lactating animals will require even more as will animals feeding on dry poor quality pasture or hay. Check water troughs, tanks and pipe lines regularly for leaks. Thirsty stock will put extra pressure on water troughs and outlets. Lush green pasture below a leak should be an obvious sign at the moment!

Adequate Feed – Ensure stock are being adequately fed, matching feed requirements (kg Dry Matter/head/day) with feed supply. Remember feed quality will be poor so the energy (ME) and protein content will need to be taken into account. Do a basic feed budget if in doubt using a feed calculator such as www.feedsmart.co.nz . It is usually always more economic to sell stock, or to graze them off farm, than to buy supplementary feed. Prioritise stock to be retained based on long term objectives eg. Breeding stock taking preference over trading and fattening stock. If you opt to graze off consider factors such as additional drenching requirements, available feed quality and quantity and stock husbandry at the alternative property.

Shade / Shelter – Protection from mid-day sun significantly reduces an animal's water requirements during hot months. Better to move stock into paddocks with trees and give them supplementary feed (hay, baleage etc) than grazing exposed paddocks.

Stock health – be aware that both feed quality as well as quantity, is significantly compromised during a drought and there may be repercussions to stock health including increased parasitism and risk of disease. Monitor animal condition regularly and consult a vet or on-line resources sooner rather than later for remedial and preventative advice.

Pasture Quality and Cover – consider having a 'sacrificial' paddock (s) where stock are fed supplementary feed for the benefit of preventing over-grazing and long term pasture damage to the rest of the property. This reduces the impact on next seasons pasture production.

Soil Structure – It is important to retain some pasture cover (rather than graze down to bare dirt) in order to prevent wind and sheet erosion as well as reduce soil moisture loss. This is also important to ensure optimum pasture regrowth post-drought.

Post-drought Pasture Growth – when moisture levels are below 'wilting point' most pasture species including clover and ryegrass go into hibernation. After the first significant rain there will be a

relatively quick flush of regrowth provided soil temperatures are still above 10^{o}C and soil moisture remains above 'stress point'. It is important to refrain from grazing the pasture initially until there is a reasonable cover built up. This allows nutrient reserves in the roots to replenish and will avoid stunted growth further down the track. Ideally light rotational grazing (as a pose to set-stocking) is best.

Post Drought Fertiliser - Immediately after a drought there is a small period of rapid nitrogen mineralisation which can result in a flush of nitrogen available for plant uptake. This is typically short lived however and there is likely to be benefits in applying nitrogen fertiliser (25-30 kgN/ha) around 4-6 weeks after sufficient rainfall to boost short term growth. Adequate soil temperature and ongoing moisture is required. Applying nitrogen fertiliser during the drought is not advised as the risk of N-loss through volatilisation and surface runoff during the first rainfall event, are high. (Be aware that the soil is initially hydroscopic and the risk of surface runoff is high). Ensuring there are no macro or micro nutrient deficiencies in the soil also will give pasture swards the optimum chance of re-establishment post drought.

Re-sowing Pasture - If the drought continues there is a risk some pasture plants will not recover and pasture swards may become sparse and/or dominated with weed species. Over sowing with a mix of legume and grass species is recommended. Again, adequate soil temperatures and sustained soil moisture is key to establishment success. If pasture quality is badly compromised it may be more appropriate to establish a winter feed crop or an annual ryegrass in the first instance then re-sow in permanent pasture the following spring.

Poplars and willows as feed supplements - If you have a source of poplars and willows on the property then you have an excellent feed source. Freshly cut willows have a higher nutritional value than lucerne hay. Livestock will eat the leaves and small branches down to the size of your little finger. All that is required is cutting off branches above cattle grazing height and dropping on the ground. You can quickly get a handle on what is too much or not enough by the amount that is left on the ground each day. These trees will regrow in the spring. Cutting above cattle grazing height stops the cow grazing the young regrowth. It is a lot of work but an excellent feed source.

DE-STOCK EARLY…..don't wait until your stock or pasture are suffering!