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SUCCESSFUL PASTURE MANAGEMENT

The aim of being successful as a grazier requires the manager to be successful in the task of growing grass. Growing grass is the engine room in driving the profitability and sustainability of the grazing system.

Once grass can be grown then it is up to the capacity of the manager to maximize the benefit of this resource. It is very important to understand what the ideal requirements of the animal are, how much energy they require and what the pastures can achieve at various stages of growth.

It should always be the objective of the manager to keep the animals above a reasonable condition score in order to maintain the animals' productivity, their capacity to breed, and their capacity to maximize weight gain and fibre production.

QUALITY GRASS + ANIMALS = PROFIT AND SUSTAINABILITY

There are 7 major areas that need to be covered:

1. The soil
2. Pasture selection
3. Grazing management
4. Fertilizer application
5. Physical farm layout
6. Sowing techniques
7. Weed and pest control

1) The Soil

MAJOR NUTRIENTS		**SOIL PH**
	SOIL	
PHYSICAL CHARACTERISTICS		**ORGANIC MATTER**

The soil is the foundation for the grass factory, the foundation for the production system. If it is limiting in any of the key nutrients, pH or trace elements, then the potential of the pasture that is there or the one that is to be sown will be lessened. Whenever starting the process of increasing the productivity of a grazing enterprise it is imperative to soil test all the relevant paddocks and have the results interpreted by a qualified person. If the pH needs to be corrected then lime needs to be applied. The key to pH rectification is that it will take time and moisture to react with the soil in order to rectify soil acidity. Major nutrients such as phosphorous, nitrogen and sulfur are crucial in the growth of pastures.

Trace elements are also very important in optimizing pasture growth, especially molybdenum, which assists in legumes functioning more effectively.

2) Pasture Selection

Selection of the appropriate pasture species will be dependent upon soil conditions, animal production goals, and climatic conditions. The options will be basically divided into short, medium and long-term pasture types. The short-term pasture varieties offer high productivity but low persistence in comparison to the longer term pasture blends.

Lucerne is also a very important component of any pasture mix as either parts of the blend or on its own. Every grazing operation should have some of their farming area available to lucerne for its capacity to respond after summer rain, its protein and its ability to produce high quality feed.

The other group that should be mentioned is the large range of oats and even grazing wheats that are now available that offer opportunities to provide significant sources of feed during the colder months from May-August.

3) Grazing Management

Grazing management is crucial to turning the grass into profit. Understanding the factors that affect the quality and the quantity of the feed will directly affect the profitability of the grazing operation.

Production goals should be aligned to the pasture system that is being developed. For example a breeding operation will have possibly a longer term pasture sown than a fattening operation that may utilize a high productive short term pasture to provide maximum possible weight gain.

Graze pastures so that groundcover is always maintained at a minimum of 70%. The height of the pasture should be grazed between 10-20 cm. If the pastures grow in excess of 20cm in height then digestibility is greatly decreased thus decreasing the productivity benefit of those pastures.

4) Fertilizer Application

Product selection or the type of fertilizer to be used is very important. Mostly single super phosphate is the main product used in pasture systems as it provides phosphorous, sulphate and calcium.

Rate is dependent upon the soil test results and the production goals targeted. As a general guide, 1kg of P per Dry Sheep Equivalent per Ha. For example if the property is running 12DSE per Ha then 150 kg SSP should be applied just to maintain current production. If the pasture productivity wants to be increased an annual application of 250kg per Ha should be adopted. The rates will vary dependent upon the soil test results.

Timing should be in early autumn or early spring. If nitrogen is to be used for grass based pastures then it should be applied at post grazing and at least 10-14 days prior to grazing. NB: Urea if ingested directly can cause death to livestock.

5) Physical Farm Layout

To maximize grazing benefit it is important to be able to apply significant grazing pressure to the paddocks. This means that the average paddock size should be somewhere between 5-10 Ha. This does increase stock movements but it also does increase the quantity and quality of the feed produced from those paddocks. It also has another benefit by mowing the paddocks, causing germination of weeds to be uniform, making control a lot more consistent. Lane ways are also extremely useful in assisting stock movement and labor requirements.

6) Sowing Techniques

There is a guide to the successful sowing of pastures but there are a few key elements to success:

- Eliminate physical problems such as hard pans or crusting.
- Weed control
- Pest control especially Red Legged Earth Mite
- Seed placements
- Pasture selection
- Newly sown management- don't overgraze a newly sown pasture
- Follow up fertilizer application to encourage the best possible root and plant growth.
- Contractors should be located who have the appropriate equipment to maximize the efficiency of the task.

7) Weed and Pest Control

Control of all weeds is most effective before the weeds get too big. The larger the weeds, the harder they are to kill. Always follow label recommendations and try and use professional weed sprayers to ensure paddock coverage is achieved, water rates are appropriate and the spray tank is not contaminated with another chemical.

There are various techniques that can be used such as spray grazing and spray topping. It is all about reducing the weed seed burden in the paddock. A strong thriving pasture will compete with, and beat, smaller weed populations.

The red legged earth mite is a pest that has the potential to destroy thriving pasture stands, especially the legume component of the pasture mix. They are very easy and cost effective to control. Newly sown pastures are very susceptible and may need to be sprayed several times.

Take Home Messages

- Soil test before a pasture improvement program is commenced.
- Select pasture types that will best suit your production goals and your conditions.
- Be aware of the benefit of the quality of the pasture sward in achieving production goals.
- If you don't feed the pasture it won't grow to its maximum potential. Use the appropriate levels of fertilizer. Nutrients are essential to maximise growth.
- Ensure that the paddocks are somewhere between 5-10 Ha depending upon the size of the operation.
- When sowing new pastures follow all the required steps to ensure success. Also use contractors with the correct equipment. · Weed and pest control is most effective when it is done early. Always use the correct chemicals at the correct rates.
- Be observant of what is happening in the paddock. Genetics is important but the quality and the quantity of the pastures grown will determine the benefit that the genetics can provide.
- If you do what you have in the past then you will only ever achieve what you have always achieved. To achieve a more productive, sustainable and profitable grazing system then change will be required. Think the same way as your breeding programme, if you never look for genetic improvement then it is unlikely that you will ever achieve that improvement that we all strive for.

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