

Paddock selection after drought

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February 2007

Key Points

- In farming you have to spend money to make it; don't cut corners and limit yield potential.
- Not each paddock will return the same \$/ha profit. Prioritising paddocks will enable poor performers or relatively expensive paddocks to be removed from the program while focusing resources on the better performing paddocks.
- Money can be made by **not** sowing paddocks and preparing them for the next season.

Successive seasons of poor economic returns due to drought have created the situation of major financial limitations in many farm businesses.

One part of overall farm business management involves prioritising and allocating limited financial resources to a planned farm program. This includes selecting paddocks with high performance potential (high yields, lower costs, and lower calculated risks) and can mark the beginning of business recovery after a series of poorer seasons.

However, you need to spend money to make it, and cost cutting in the wrong key areas can limit economic potential.

There are many factors to be considered before a final decision is made. Even one factor can have a major effect on crop / pasture performance, regardless of the season. Agronomic issues to consider when prioritising paddocks include:

- **Paddock topography**

Topographical characteristics can determine crop and pasture options. Gilgai or uneven paddocks, paddocks with sticks or stones limit opportunities to make hay or silage. Crops prone to lodging such as field peas should be avoided in such paddocks.

- **Soil type**

Soil characteristics (surface & sub surface) like soil pH, sodicity, salinity, texture, drainage characteristics, compaction etc. will impact on crop/variety selection. Different crops have specific soil requirements.

- **Subsoil moisture**

Some crops are more expensive than others to grow. Low soil moisture levels at sowing can significantly increase financial risks. Paddocks with ground cover can retain moisture for longer and thereby extend time for planting after small rainfall events.

- **Paddock nutrition**

Fertiliser is a major cost. Fertiliser rates to meet crop requirements may be modified **if** residual fertiliser from last season remains. Paddock history, past crop performance, fertiliser test strips and soil tests can help determine the most appropriate decision. It is not uncommon for many paddocks to be low in both available phosphorus and sulphur levels.

- **Herbicide history**

Part of herbicide resistance management includes rotation of herbicide groups. Consider paddock history. Herbicide residues (e.g. sulfonyl urea, triazines etc.) may be an issue in some paddocks. Check plant-back periods. Remember, plant back periods **begin** after rainfall occurs.

- **Weed burden**

Identify your 'cleanest' paddocks and the ones where pre-emergent herbicides are



an option. Some broadleaf weed species are difficult and/or expensive to control in pulse and oilseed crops. Risk may be reduced through the combination of pre-sowing weed knockdown and late sown (early maturing) crops/varieties.

Weed management involves strategic herbicide applications in combination with other management options. Foregoing herbicides based solely on cost, may be false economy in some situations and may put future crops at risk. Individual situations based on crop potential and value, weed species and numbers, need to be assessed.

- ***Disease carryover***

The crop / pasture in the paddock in 2006 will impact on levels of both soil and residue borne diseases. Important diseases to consider include take-all, crown rot, yellow leaf spot, stripe rust, wheat streak mosaic virus, blackleg, ascochyta, phytophthora, bacterial blight, cucumber mosaic virus, chocolate spot, rust etc. Transmission from neighbouring paddocks and volunteers are key issues with some diseases.

- ***Pests***

Pests like red-legged earth mites, blue oat mites, nematodes and cutworms may pose a risk in some paddocks. Assess risk based on paddock history (including recent control) and crop susceptibility.

- ***Fallow management***

Paddocks with well managed fallow periods significantly lower the risk of poor crop and financial performance. Timely weed control reduces moisture losses and weed seed set. Maintaining ground cover increases moisture conservation. The absence of (or restricted) grazing periods maintains soil friability and ground cover. Prolonged grazing periods may create crop / pasture emergence problems through grazing induced surface compaction.

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