

# To sow, or not to sow?

## Do we continue seeding, despite the dry conditions, and lack of forecast rain?

- Our approach to continuing dry sowing in the current conditions is: do what is necessary to make sure as much of your farm is sown prior to the 'germinating rain', whenever that is. Obviously, this doesn't apply to fragile paddocks at risk of erosion, and/or paddocks unlikely to sow well dry. As we've seen last year, and time and time again, seed will sit in dry soil for an extended period of time, without significant loss of germination or vigour. The risk of resowing being necessary is generally always less than what we are initially worried about.
- Make sure to frequently revisit pre-emergent herbicide strategies to ensure crop safety and/or improve efficacy. Be especially cautious if there are lingering herbicide residues. Crop effect from herbicide residues will be worsened as crops germinate in cooler conditions into June.

## When, and how, do we make the call on dropping out risky paddocks and/or crop types?

- Before making drastic changes, consider breakeven yields required to cover crop input expenses, compare the alternative options, and understand what paddocks are, or aren't worth the risk.
- Usually, the highest yield potential and best paddocks, are sown earlier in the program, which leaves the decision around the poorer / risky paddocks (and crop types). Once you've got the 'no brainer' crop types and paddocks out of the way, make sure to assess the rest of the program carefully, and consider what sort of risk your business is comfortable with, and the implications on stubble cover and erosion, and future rotation.
- Crop yield potential naturally declines due to a late season break. Compared to wheat crops germinating in the optimal time (late April – mid May across SA), a late established wheat crop will have a lower WUE (water use efficiency) due to less root growth, will have less growing season to accumulate biomass / yield potential, and is more prone to heat stress in spring.
- It pays to be flexible! This year we have seen more plan changes than ever before, and is worth considering strategies for storing extra seed in future years, as it certainly makes decisions easier if alternate seed is available.

## EXAMPLE BREAK-EVEN POINTS

- By break-even in this context we mean, what yield is required to cover the input expenses (variable costs) invested in that paddock, however doesn't consider overhead costs, lease, finance or other fixed costs of doing business. Input expenses (variable costs) include: seed, fertiliser, pesticides, and all operations.

### *A simple example:*

- Wheat in a low rainfall & low input area might cost \$266/ha to grow in inputs. With a wheat price outlook of \$360/tonne, the break-even yield to cover inputs is 0.74t/ha (266 divided by 360).
  - Most businesses will have \$200/ha+ in overhead/fixed expenses (much higher in high rainfall areas), which means a "profit" won't be generated unless a 1.3t/ha yield is achieved. Both of these 'break even' metrics are important to understand.
  - The overhead/fixed costs of a business are 'fixed' year on year, so this is why the decision to sow a paddock or not, only looks at a partial gross margin, or the break-even yield required to cover the input expenses only.
- *Variable cost assumptions used above: seed \$28/ha, fertiliser (40kg/ha MAP) \$48/ha, pesticides \$40/ha, operations \$150/ha.*

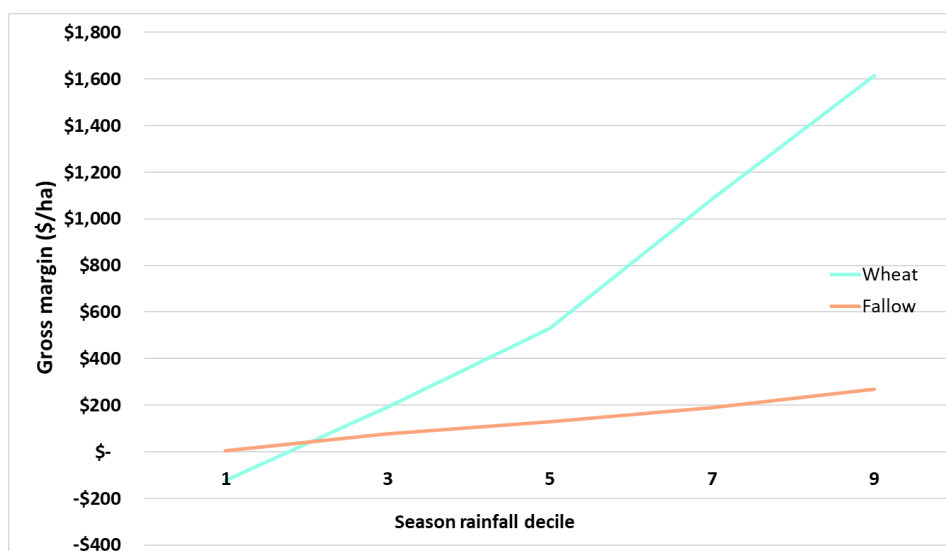
## Modelled example: Sow wheat vs chemical fallow – Appila (370mm average annual rainfall), Upper North SA

Adapting the example above, we can look at how the economic outcome of sowing wheat vs chemical fallowing a paddock may vary across season deciles for the season ahead.

- The table below shows how much rainfall is required for the rest of the growing season to achieve the various deciles, and the corresponding expected yield. Expected yields are based on 60% of the Sadras & Angus potential yield calculator, accounting for no stored soil moisture, and considers poor agronomic conditions impacting yield potential (the expected June break impacting crop WUE, poor stubble cover ect).
- This graph outlines the gross margin outcomes of sowing wheat vs leaving as a chemical fallow, using the yield assumptions in the table, across the various season rainfall deciles. Other assumptions used include a wheat price of \$360/t, increasing wheat and fallow variable costs as the rainfall decile increases, and a future benefit has been given to the fallow situation for residual moisture to benefit a wheat crop in the follow season.

Growing season rainfall decile	Rainfall required in June – October	Expected yield* (t/ha)
1	77.5	0.2
3	160	1.3
5	242	2.4
7	365	4.0
9	488	5.6

\* using 60% of Sadras & Angus potential yield calculation

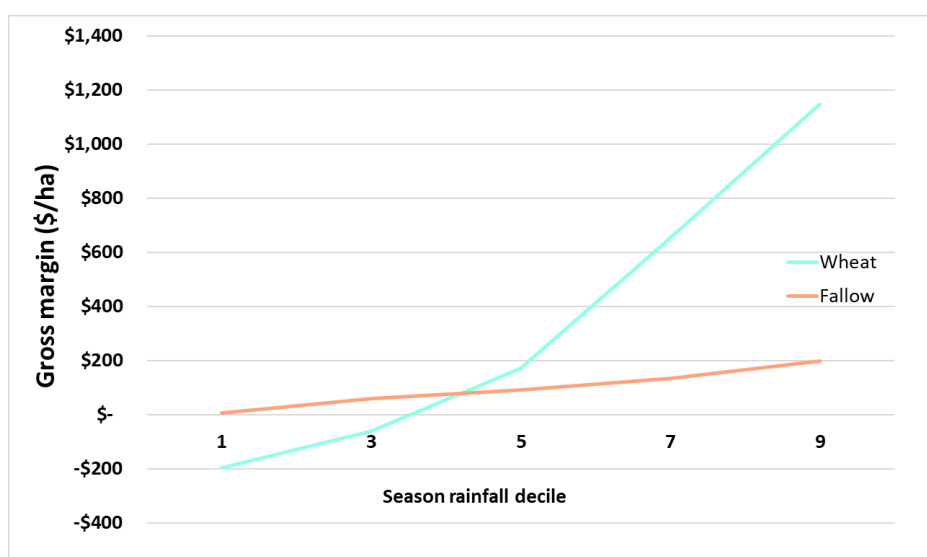


- At Appila, the gross margin of wheat is likely to exceed that of a chemical fallow, if the 2025 growing season is Decile 2 or greater (where the graph lines intersect). This is equivalent to a yield of 0.7t/ha of wheat being required to cover the variable/input costs.

## Modelled example sow wheat vs fallow – Cambrai (290mm average annual rainfall), Murray Plains SA, see interpretation notes above

Growing season rainfall decile	Rainfall required in June - October	Expected yield* (t/ha)
1	44	0
3	105	0.6
5	167	1.4
7	274	2.8
9	382	4.3

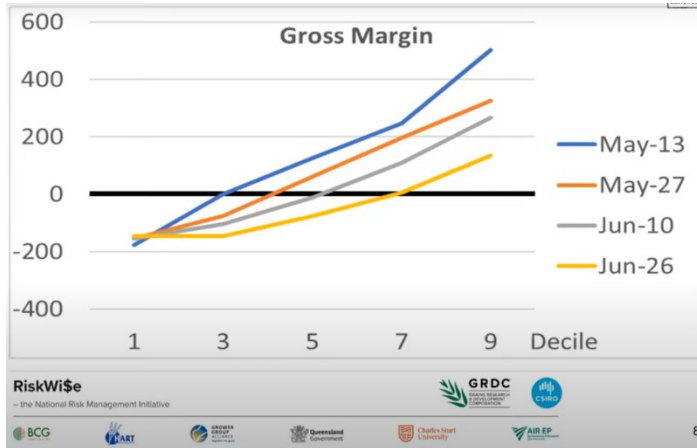
\* using 60% of Sadras & Angus potential yield calculation



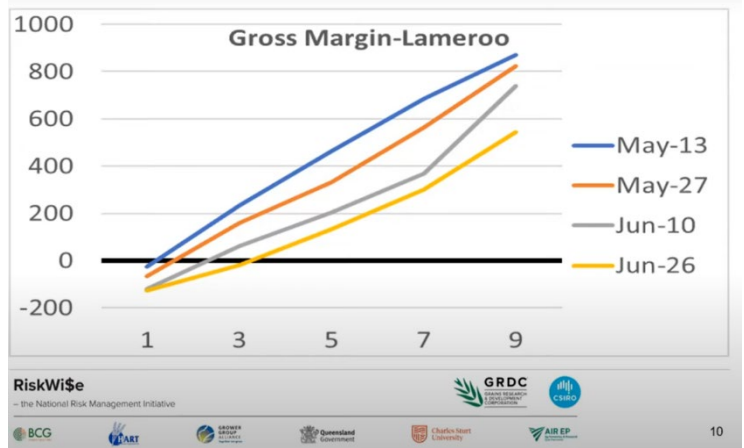
- At Cambrai, the gross margin of wheat is likely to exceed that of a chemical fallow, if the 2025 growing season is Decile 4 or greater (where the graph lines intersect). This is equivalent to a yield of 1t/ha of wheat being required to cover the variable/input costs associated with putting the crop in (\$266/ha of inputs).

**Modelled example wheat gross margin across season rainfall deciles, for season break / crop establishment dates.** Graphs are courtesy of a recent [MSF Webinar](#), presented by Barry Mudge, as part of the RiskWi\$e program. 10mm of PAW (plant available water) is used as the starting soil moisture, with gross margins from the 2025 PIRSA Cropping Gross Margin Guide.

**Loxton Wheat Gross Margins**



**Lameroo Wheat Gross Margins**



- The above graphs show the gross margin impact of the late season break, across a range of growing season rainfall deciles (1 – 9) on the bottom axis.
- At Loxton (left graph), for a June 10<sup>th</sup> establishment date, a positive wheat gross margin will only be achieved in a growing season of decile 5 or better. If the break is delayed until the end of June, a positive wheat gross margin will only be achieved in a decile 7 season or better.
- At Lameroo (right graph), for a June 10<sup>th</sup> and June 26<sup>th</sup> crop establishment date, a positive wheat gross margin may be achieved for a 2025 with decile 2 and 3 rainfall conditions, respectively.