

Changes to manuscript

RC1:

On line 100, capitalize “Indicators” at the start of the sentence.

Done.

On lines 225 and 254, there are references to Figure 9 but I do not see a Figure 9. Should this be Figure 4?

Line 286, there is a reference to Fig. 8, which I do not find in the manuscript.

Please check all Figure numbers.

All figure and table numbers have been checked.

On Tables 2 and 3, I suggest adding “with drought indicators” after “Correlation”

RC2:

Done

Row 100: at the beginning of the phrase Indicators instead of indicators.

Done.

Row 144: SIMUlator instead of sIMUlator.

Not changed as this is this is the default style used for APSIM (S is for Systems)

see [APSIM](#)

In addition to the comments received (from RC1 and RC2) we have made small revisions to the paper based on internal feedback and improvements made to the analysis since the original submission.

The key change involves an adjustment to two of the benchmark variables used to compare our drought indicators against. Specifically for the farm profit indicators we have updated the analysis to compare against "farm rate of return (%)" defined as farm profit (\$) / capital holdings (\$), rather than just using profit (\$) as used in the current paper. This is a subtle change and has limited effect on the conclusions. However, it reduces noise associated with changes in farm size (because rate of return is scale invariant) and so gives more accurate results.

For the pasture indicators we have updated the analysis to use fodder demand (i.e., quantity of livestock feed purchased per head of livestock) rather than livestock fertility (net birth rate). Internal discussion and testing have revealed this to be a better

indicator of pasture condition within a given year, as livestock fertility is subject to longer time lags. With this benchmark the AADI pasture indicator performance is comparable to the alternative (TSDM) measure.

Combined these changes required us to update the numbers in Tables 2, and Table 3 (last three columns only). Figure 4 and Figure B (c and d only). All other tables and figures in the paper are unchanged. These updates require limited changes to the text as the conclusions are much the same, accept for the discussion of the TSDM vs AADI pasture indicators in section 3.1 (paragraph 4).