

Measure to Monitor

(a sub-project of Smarter Irrigation in SA)
South East, South Australia

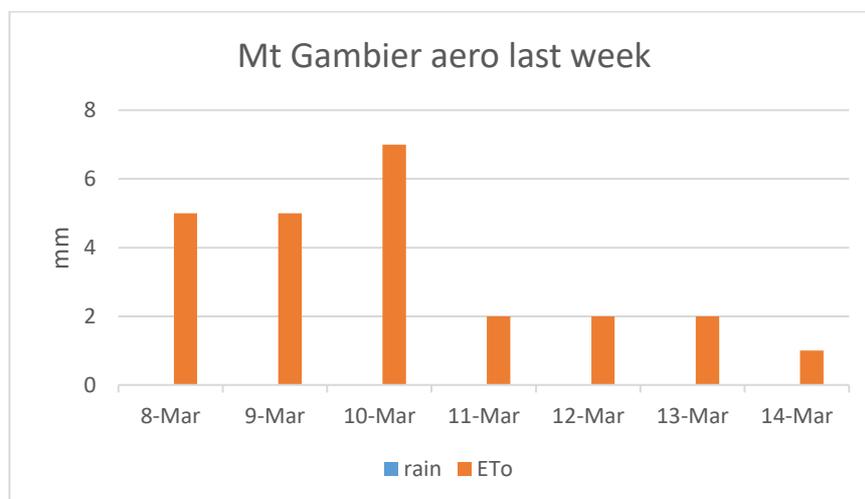
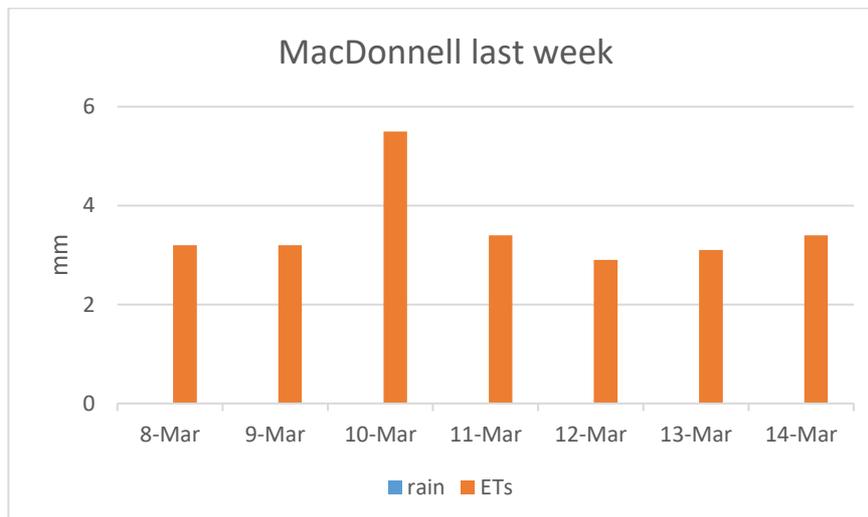
A weekly review of irrigation sensor and pasture growth data to improve irrigation scheduling throughout the year.

15th March 2018

Brought to you by Nigel Fleming, SARDI, ph (0401) 122 136

Previous 7 days ~ average Evapotranspiration & Rainfall

	ETo's (mm/day)	Rainfall (mm)
MacDonnell	3.5	0
Mt Gambier aero	3.4	0

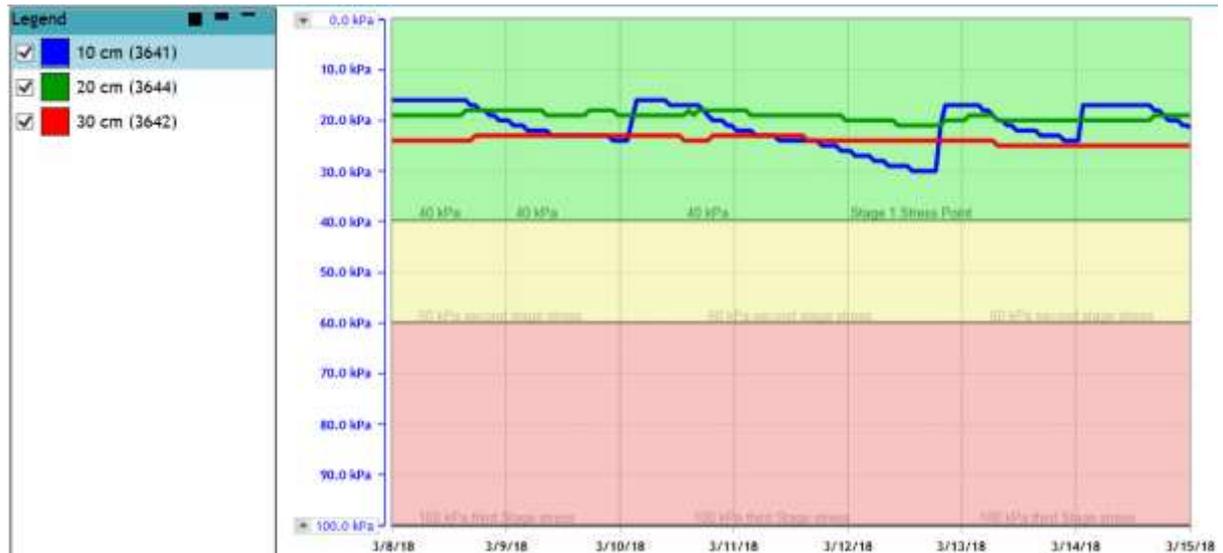


No rain recorded last week. ETo fairly consistent around 3-4 mm/day at MacDonnell, 5-6mm/day initially at Mt Gambier, and then around 2mm/day.

What are the irrigation sensors telling us:

Allendale East:

Sensors are tracking nicely - all within the desired moisture range.



Mt Schank

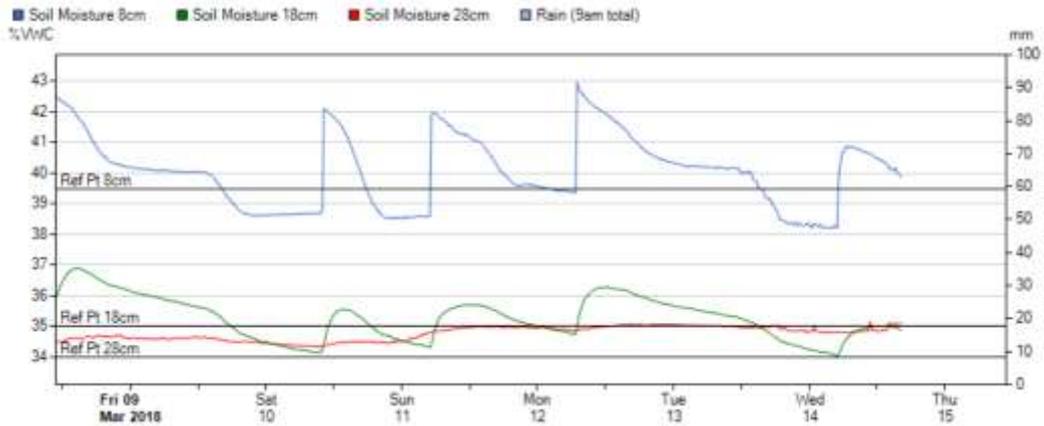
The sensors have “flatlined” over the last week. This may be an issue of the pivot parking location, as discussed last week.



Eight Mile Creek (pivot 6)

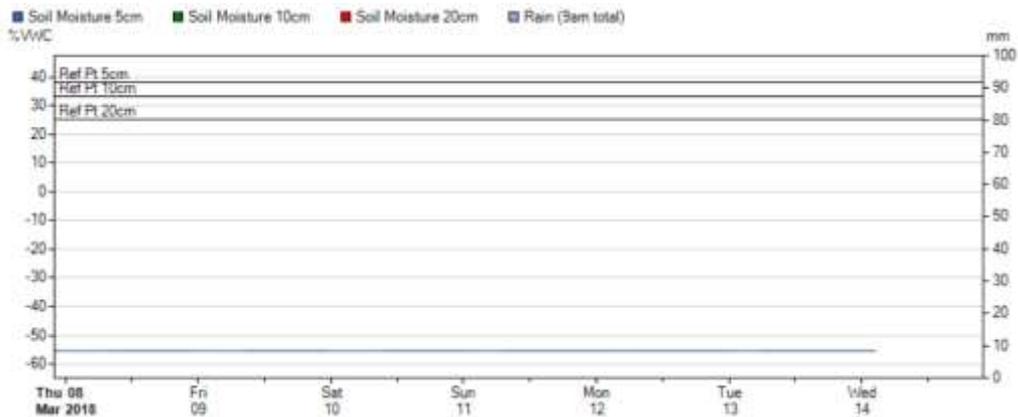
Dry Area

The sensors appear to be working well. This chart is similar to the one from last week, showing a balancing act between ET, frequency of irrigation and soil moisture. Soil moisture rises with daily irrigation, so daily irrigations have been skipped twice in the last week to maintain the desired soil moisture levels.



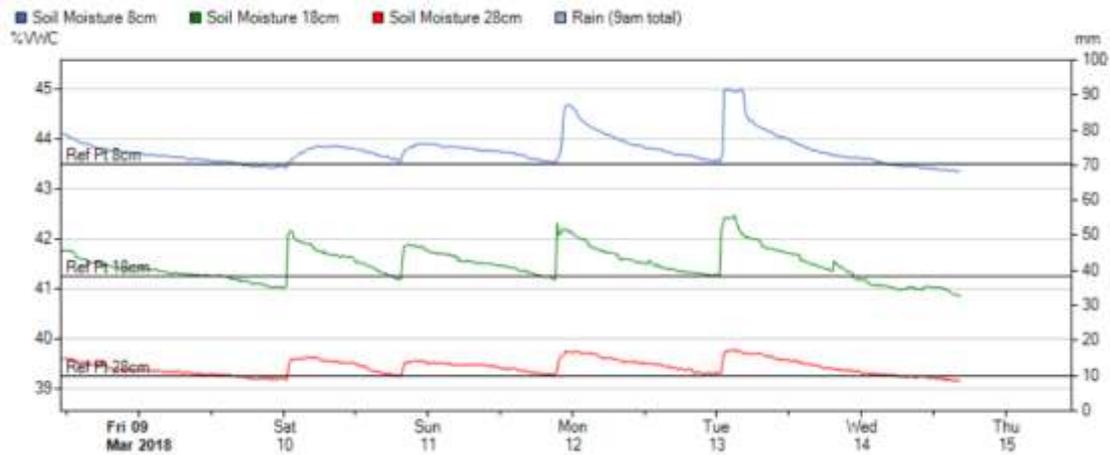
Normal Area

These sensors are still out of action.



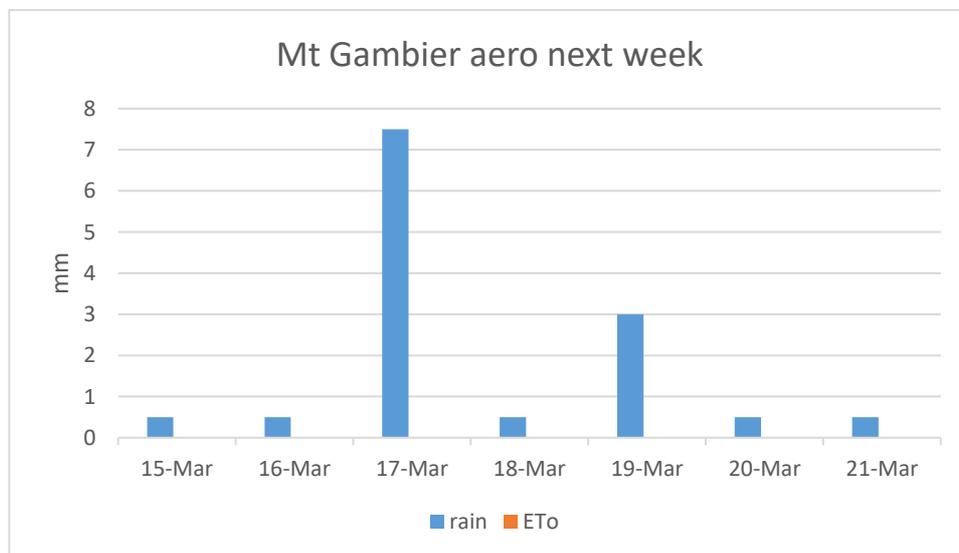
Wet Area

Soil moisture here is tracking in the desired range.

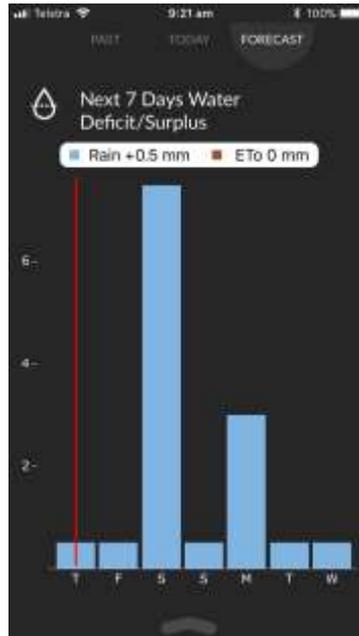


Next 7 days ~ average Evapotranspiration & Rainfall

	ETo (mm/day)	Rainfall (mm)
Mt Gambier aero	0	13



The Yield app is again predicting zero ET (see below). This is obviously not the case – I will contact them and ask about this. Some models predict zero ET if there is going to be rain on that day. ET is reduced on rainy days, but I think that zero ET over an entire week is pretty unlikely!



Seasonal irrigation summary

I had intended to summarise where the 3 farms sit with their water allocation so far, but have not yet gotten their actual yearly allocation. Pivot 6 has applied 720mm of irrigation (7.2 ML/ha) to date.

Summary for the coming week

Rain on Saturday (7-8mm), maybe again on Monday with traces of rain through the week. Last week, ET of 0 mm/day was predicted from Friday until yesterday. The actual ET during that time at MacDonnell was 3.6mm/day at Mt Gambier (from The Yield) was 3.4mm/day. This is a technical issue that I will contact The Yield about and see what response comes back.

Predicted temperatures are rising from 22°C today to just over 30° on Saturday, then the low 20's for the rest of the week. Irrigators needed to have applied on average 24 mm of irrigation water for last week.

There is 13mm predicted rainfall in the next week. Predicted ET is not known at this stage, but likely to be less than the 3.5mm/day of last week, given there will be rain.

* These figures are approximate and do not take into account rainfall on farm*

The intention of this service is not for the information to be used in isolation when making decisions about irrigation scheduling. ET_o provides a relatively objective estimate of plant water use and provides another handy 'tool in the irrigation scheduling tool box.' Information in this email is only a guide and should only be used in conjunction with other tools including updated weather information.

For improved accuracy, the collection and use of individual farm rainfall measurements is advised.

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