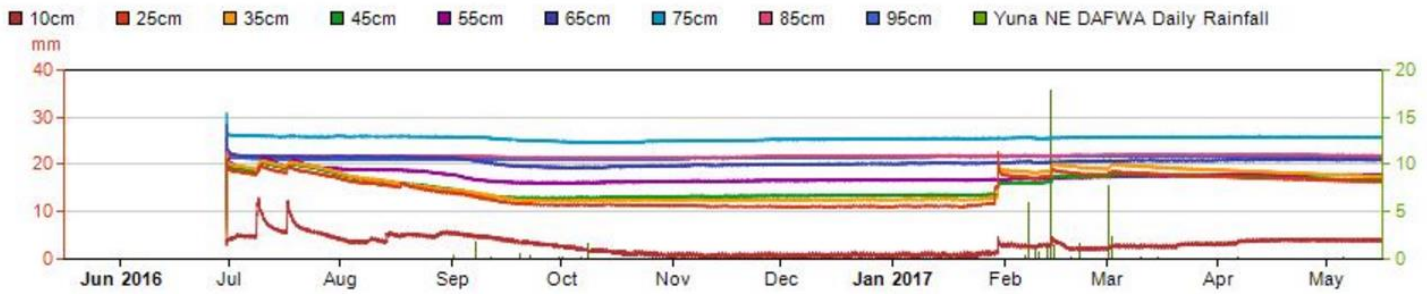
DAFWA eConnected Project Update – May 2017

Soil Moisture Probe

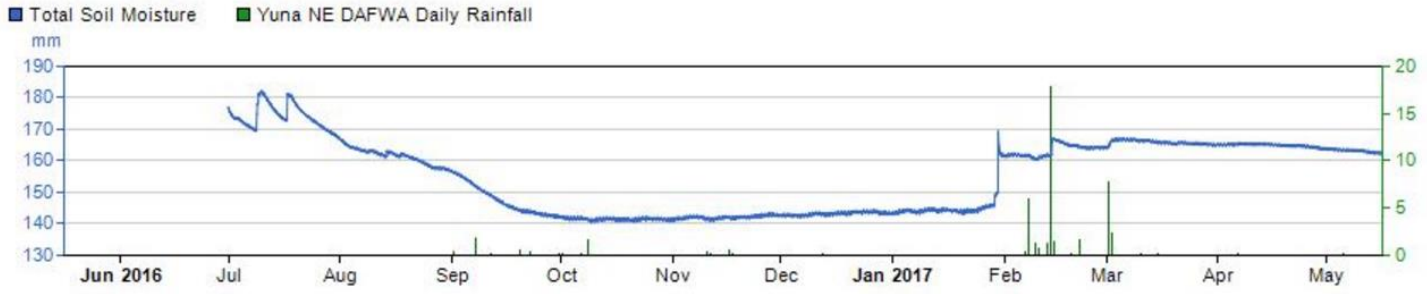
The soil moisture probe was installed in July last year and everyone can access the data at http://tiny.cc/grdc_probes or via the YFIG website.

It shows that the Crop Lower Limit was achieved in late September last year. Rainfall in February has recharged the profile somewhat - primarily the 25-45cm layers. There has been little recharge in the depths below this, and the soil surface has dried from evaporation.

EConnect: Yuna FIG - Soil moisture by depth



EConnect: Yuna FIG Total Soil Moisture



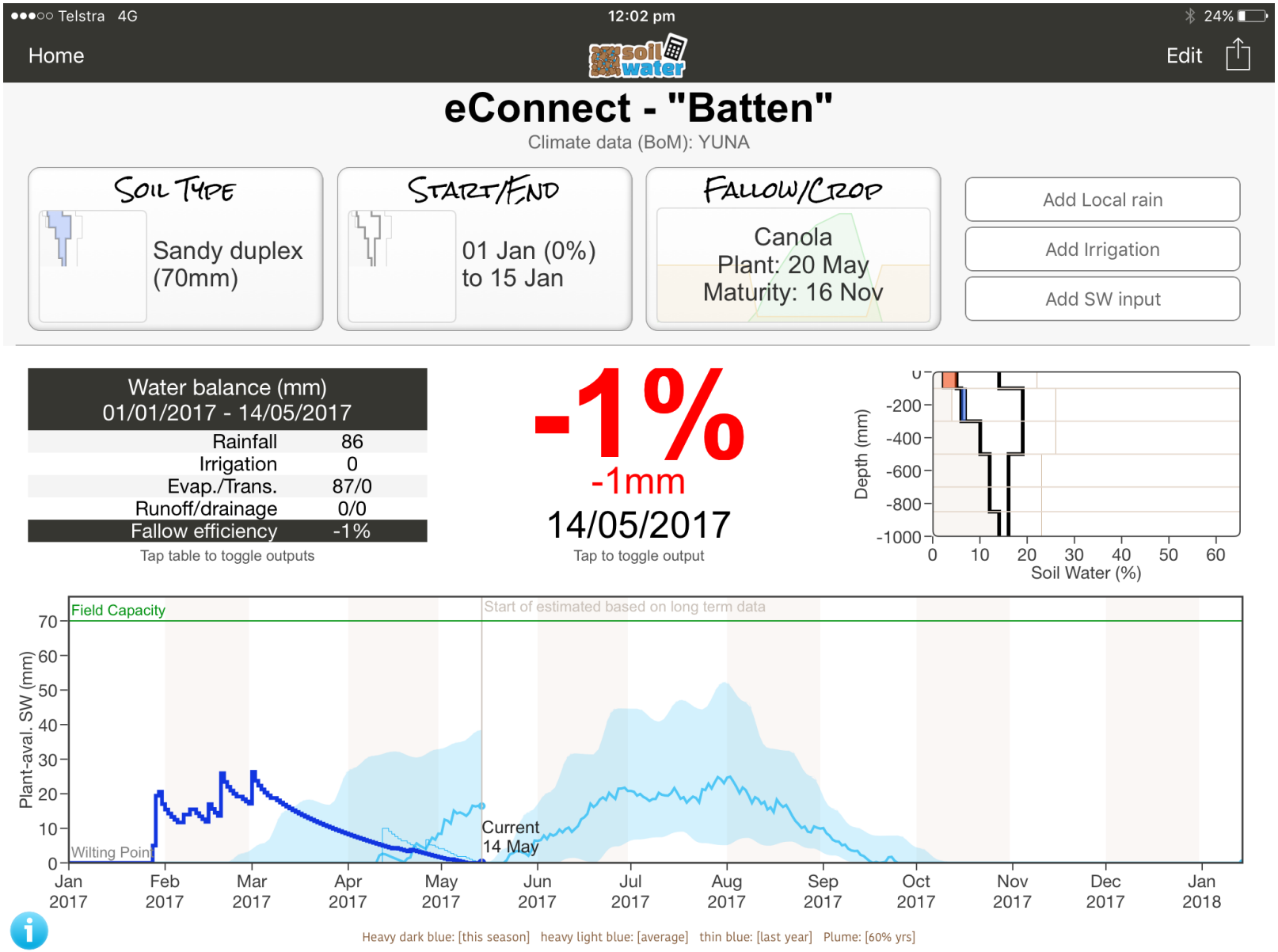
Manual Observation

The moisture levels indicated by the moisture probe match Jason Batten's observations when digging at the site:

0-10cm - Dry
10-50cm - Quite wet
50-70cm - Much drier, but still damp
>70cm - Hit clay/rock

Soil Water App

Conversely to the moisture probe and paddock observations the Soil Water App is suggesting there is 0mm of plant available water (see following page). This is clearly not the case given Jason's observations and suggests the App is overestimating the evaporative potential to dry the soil profile below 10cm. That is not to say that the App is of no benefit – it may more accurately model water dynamics in season.


Telstra 4G
12:02 pm
24%
Home
soil water
Edit
eConnect - "Batten"
Climate data (BoM): YUNA
Soil Type
Sandy duplex (70mm)
Start/End
01 Jan (0%) to 15 Jan
Fallow/Crop
Canola
Plant: 20 May
Maturity: 16 Nov
Add Local rain
Add Irrigation
Add SW input
Water balance (mm)
01/01/2017 - 14/05/2017
Rainfall 86
Irrigation 0
Evap./Trans. 87/0
Runoff/drainage 0/0
Fallow efficiency -1%
Tap table to toggle outputs
-1%
-1mm
14/05/2017
Tap to toggle output
Depth (mm)
0
-200
-400
-600
-800
-1000
0 10 20 30 40 50 60
Soil Water (%)
Field Capacity
Start of estimated based on long term data
Plant-aval. SW (mm)
70 60 50 40 30 20 10 0
Wilting Point
Current
14 May
Jan 2017
Feb 2017
Mar 2017
Apr 2017
May 2017
Jun 2017
Jul 2017
Aug 2017
Sep 2017
Oct 2017
Nov 2017
Dec 2017
Jan 2018
Heavy dark blue: [this season] heavy light blue: [average] thin blue: [last year] Plume: [60% yrs]