



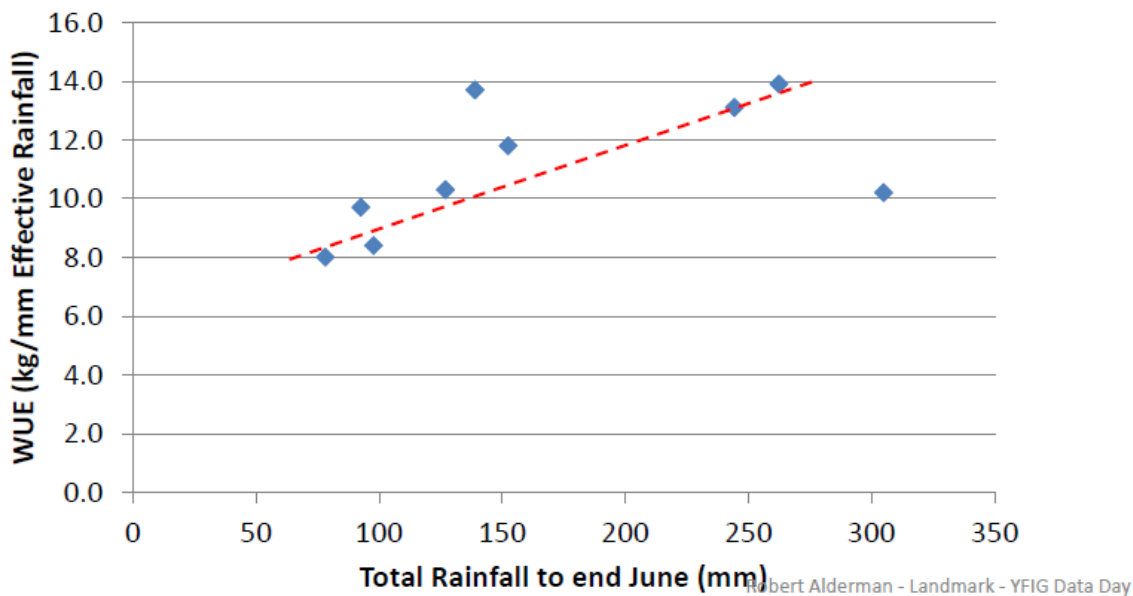
## Yield prediction tools – Battens farm

1. N Broadacre – Need estimate of WUE
2. iPaddock yield

# Using your own WUE

Battens Whole Farm Wheat WUE varies from 8-14kg/mm

Bankwest Benchmark Avg. Values 8-11 (2013-2015)



## Wandana monthly rainfall in 2017

| Jan  | Feb  | Mar  | Apr | May | Jun             |
|------|------|------|-----|-----|-----------------|
| 58.0 | 47.6 | 13.2 | 0.0 | 8.0 | 3mm to the 14th |

127 mm YTD

Therefore WUE for whole farm approx. 10kg/mm based on graph above.

But the WUE of red loam paddocks will be higher.

Working on **13kg/mm** for the red loam, and last 15 years' average rainfall for July-September (below). Plus another 10mm assumed to fall for the remainder of June.

15 year average rainfall

| July | Aug | Sept |
|------|-----|------|
| 36   | 26  | 20   |



Department of Agriculture and Food



# N Broadacre

N broadacre is predicting: **1.32 t/ha** based on 13kg/mm WUE; **1.52 t/ha** predicted based on 15kg/mm WUE

Telstra 3G 4:33 pm 52%

< N Broadacre Batten - F04 Farrells Mailbox

|                                   |              |                 |                       |           |                  |                              |            |
|-----------------------------------|--------------|-----------------|-----------------------|-----------|------------------|------------------------------|------------|
| Bag N Applied                     | 20.0 kg N/ha | Created         | 13 May 2016           | Modified  | 12 Feb 2017      | Northern Agricultural Region |            |
| N Available                       | 52.6 kg N/ha | Grower/Location | Batten                | Crop Type | Wheat            | Soil Type                    | Loamy Sand |
| N Limiting Yield Potential        | 1.25 t/ha    |                 | F04 Farrell's Mailbox |           | APW (Aust Premiu | 0.0%                         |            |
| Optimum Protein % for Price Ratio | 10.5%        | Zone            |                       | Site      |                  | \$265.00                     |            |
| Yield Loss from Sub-Optimal N     | 0.00 t/ha    |                 |                       |           |                  |                              |            |

### What if...

Protein Target

Yield Potential **1.25 t/ha**

Yield Loss **0.00 t/ha**

### More N ?

Yield Target

Protein Target

Total Bag N to date **20.00 kg N/ha**

Bag N Efficiency

Total Bag N Required **23.13 kg/ha**

Extra Bag N Required **3.13 kg N/ha**

Cost of Extra N **\$2.79**

Extra Fertiliser % N

Ex. Fertiliser Required **6.80 kg/ha**

Soil Tests Crop Rotations Applied Fertiliser Rainfall Yield Potential More N?

Telstra 3G 4:31 pm 53%

< N Broadacre Batten - F04 Farrells Mailbox

|                                   |              |                 |                       |           |                  |                              |            |
|-----------------------------------|--------------|-----------------|-----------------------|-----------|------------------|------------------------------|------------|
| Bag N Applied                     | 0.0 kg N/ha  | Created         | 13 May 2016           | Modified  | 12 Feb 2017      | Northern Agricultural Region |            |
| N Available                       | 35.7 kg N/ha | Grower/Location | Batten                | Crop Type | Wheat            | Soil Type                    | Loamy Sand |
| N Limiting Yield Potential        | 0.85 t/ha    |                 | F04 Farrell's Mailbox |           | APW (Aust Premiu | 0.0%                         |            |
| Optimum Protein % for Price Ratio | 10.5%        | Zone            |                       | Site      |                  | \$265.00                     |            |
| Yield Loss from Sub-Optimal N     | 0.00 t/ha    |                 |                       |           |                  |                              |            |

### Rainfall Yield Potential

|                         |                                   |                  |      |                                   |         |
|-------------------------|-----------------------------------|------------------|------|-----------------------------------|---------|
| Nov                     | <input type="text" value="0.0"/>  | 0.0 mm           | Apr  | <input type="text" value="0.0"/>  | 0.0 mm  |
| Dec                     | <input type="text" value="mm"/>   | 0.0 mm           | May  | <input type="text" value="8.0"/>  | 5.3 mm  |
| Jan                     | <input type="text" value="50.0"/> | 15.0 mm          | Jun  | <input type="text" value="13.0"/> | 9.1 mm  |
| Feb                     | <input type="text" value="47.6"/> | 15.7 mm          | Jul  | <input type="text" value="36.0"/> | 25.2 mm |
| Mar                     | <input type="text" value="13.2"/> | 5.8 mm           | Aug  | <input type="text" value="26.0"/> | 15.6 mm |
| Total Rainfall          |                                   | <b>213.8 mm</b>  | Sep  | <input type="text" value="20.0"/> | 10.0 mm |
| Growing Season Rainfall |                                   | <b>103.0 mm</b>  | Oct  | <input type="text" value="0.0"/>  | 0.0 mm  |
| Effective Rainfall      |                                   | <b>101.7 mm</b>  |      |                                   |         |
| <b>13 kg/mm</b>         |                                   | <b>1.32 t/ha</b> | Save | Load                              | Clear   |

Soil Tests Crop Rotations Applied Fertiliser Rainfall Yield Potential More N?

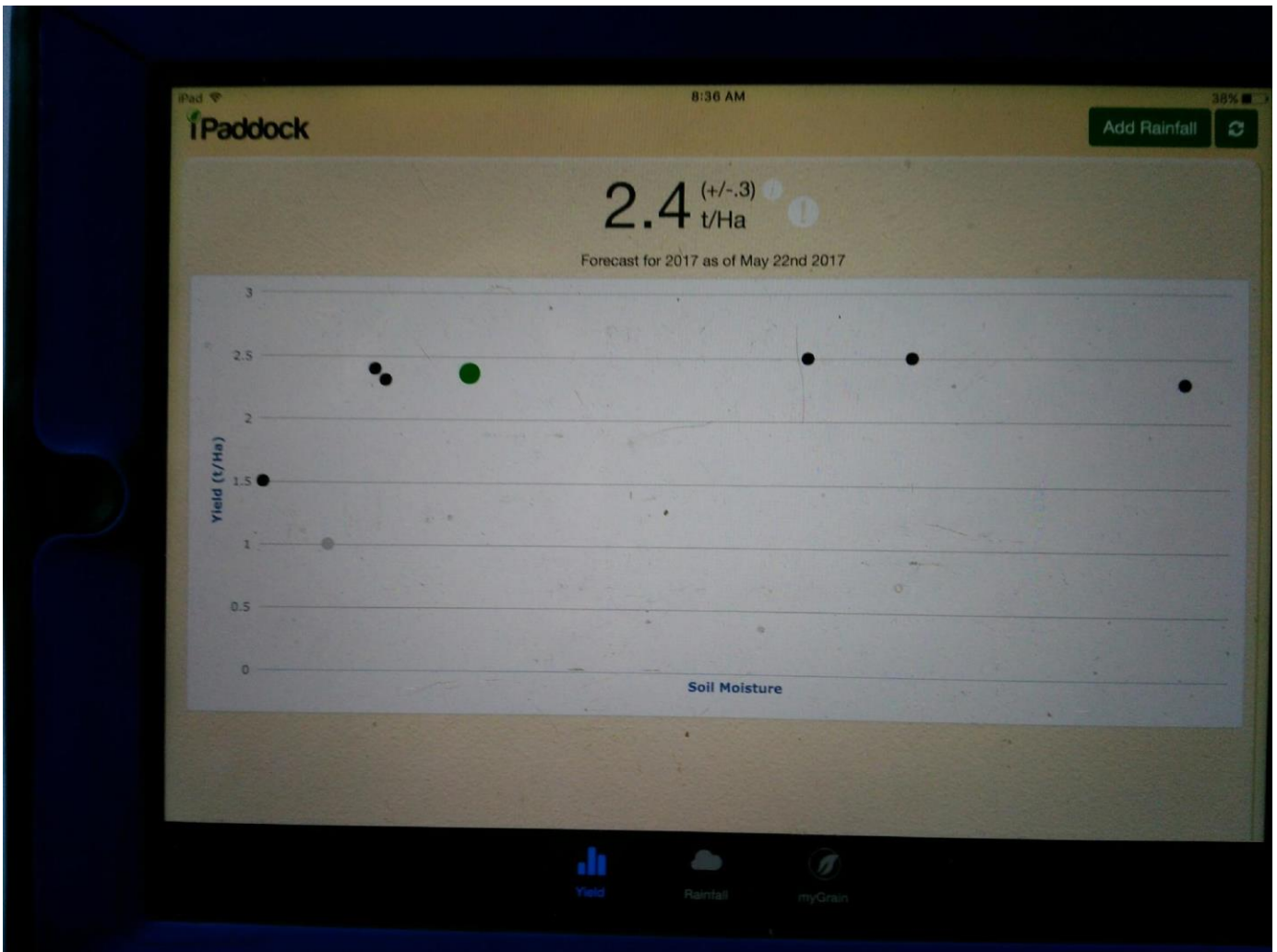
To achieve 1.32 t/ha no extra N should be needed, assuming 20kg N applied at seeding. Mineral N is assumed to supply 9 kg N, but the site has not been soil tested this year.

## iPaddock Yield

- iPaddock Yield is predicting a **higher yield of 2.4t/ha** at the moment.

Kim can talk about this – photo (below) from Kim's iPad.

- Is this yield feasible with only a moderate finish to the season?



- At a higher yield target such as this, more N would be needed.
- N Broadacre predicts an extra 54kg N would be required to achieve this 2.4t/ha yield target.
- It's unlikely anyone would risk applying this given the current status of the season.

# Rainfall to Date

Rainfall to date showing that *even with decile 5 rainfall for the remainder of the season, winter rainfall will be at decile 1.*

*Summer rainfall is of much less benefit to late emerging crops than early emerging. Later crops have less time to capitalise on the extra moisture before high temperatures cut grain filling short.*

Rainfall to Date 2017 - Yuna NE - As of 14/06/2017

