



sam@farmlab.com.au



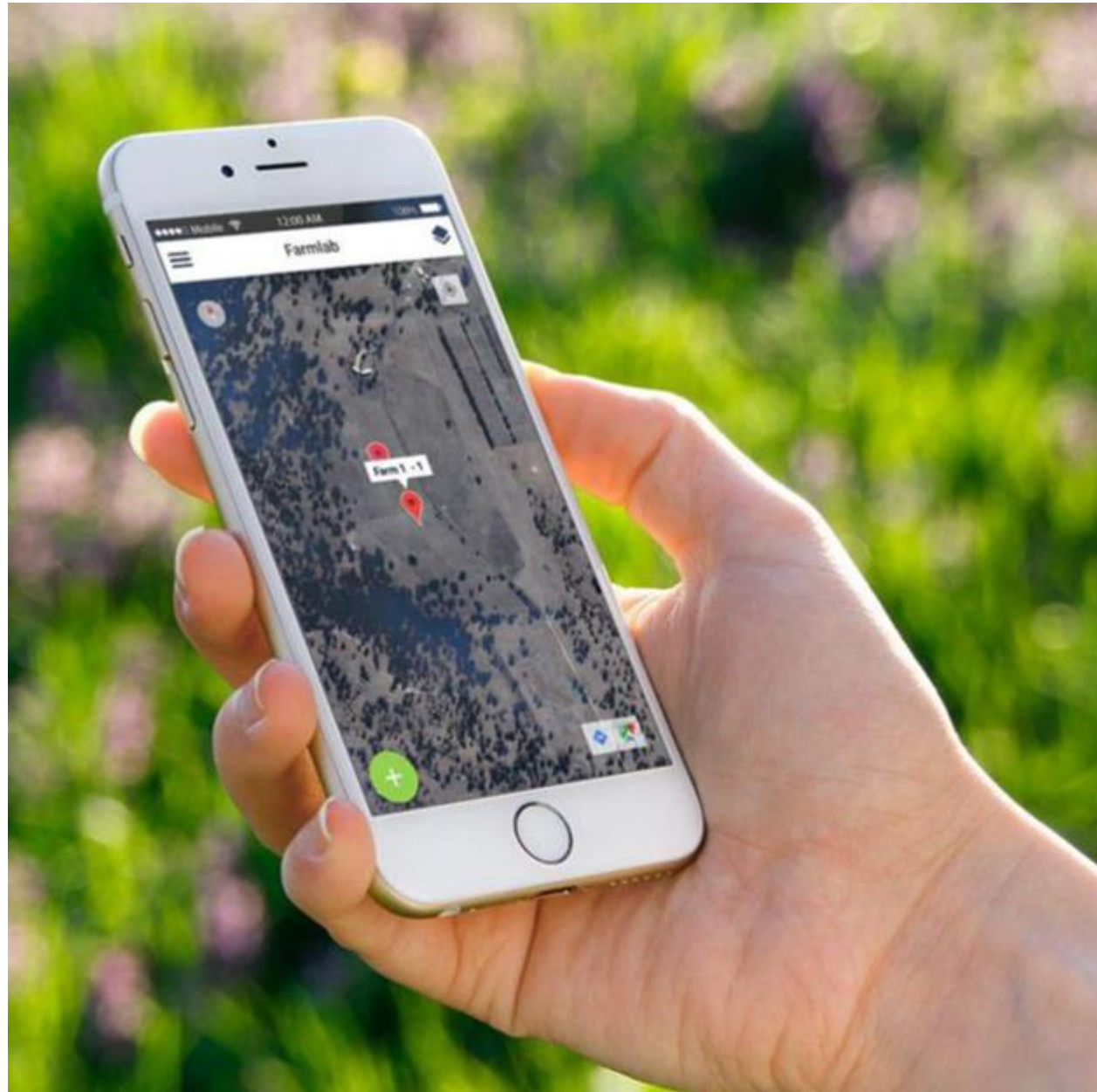
FarmLab is Xero for Soil

We give farmers a digital account to manage their fertilizer recommendations, soil test results and geospatial data.

We give agronomists and carbon developers a better way to communicate with their clients.



Navigation & Sample Collection



Analysis and Communication



“Can I produce soil carbon credits?”

- *Every FarmLab client since 01 Mar 2021*

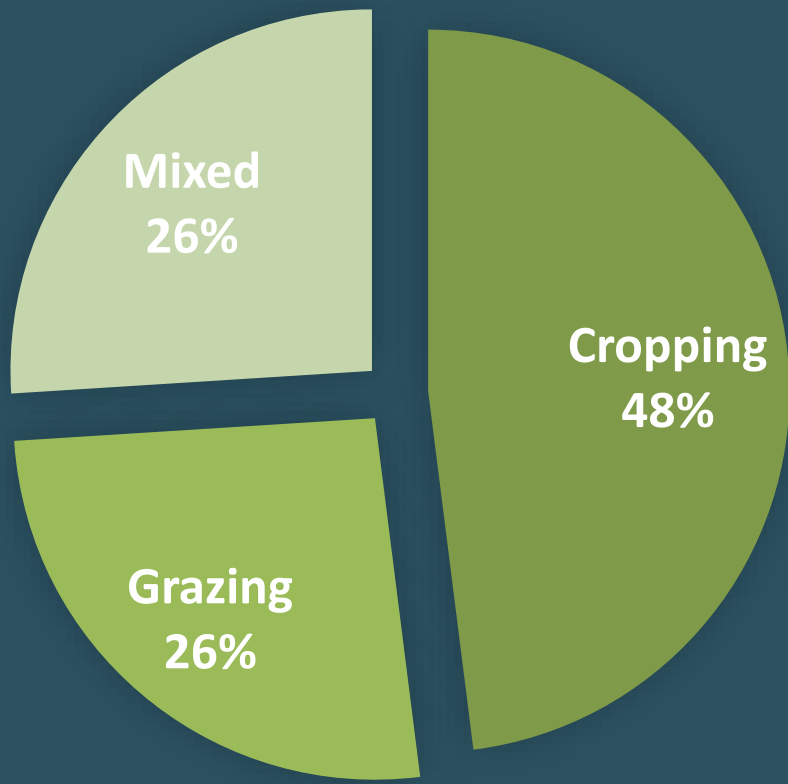


1. Soil Carbon Project Requirements (CER)

2. Data to support project registration

3. Understanding the limitations for that farm/area

Client Breakdown





FARMLAB Insights

Soil Carbon Offset Report (SCOR): Kirby

Your tailored report on soil carbon offsets

KIRBY, MARCH 2021



1. Soil Carbon Project Requirements (CER)

Text

Explanatory Statement

Download


Enabled By

Buy print copy

Bookmark

[this version](#) | [go to latest](#)

Carbon Credits (Carbon Farming Initiative—Measurement of Soil Carbon Sequestration in Agricultural ...

 - F2018L00089

In force - Latest Version

[View Series](#)

DETAILS

EXPAND

TABLE OF CONTENTS.

Expand All | Collapse All

Text

Part 1—Preliminary

1 Name

2 Commencement

3 Authority

4 Duration

5 Definitions

6 References to factors and parameters from external sources

Part 2—Soil carbon projects

7 Soil carbon projects

Part 3—Project requirements

Division 1—General

8 General


9 Project area and eligible land

10 Activities to be conducted

11 Activities not to be conducted

TOC

HIDE



Carbon Credits (Carbon Farming Initiative—Measurement of Soil Carbon Sequestration in Agricultural Systems) Methodology Determination 2018

I, Josh Frydenberg, Minister for the Environment and Energy, make the following determination.

Dated 25/1/18

Josh Frydenberg

Minister for the Environment and Energy

Contents

Part 1—Preliminary

5

1

Name

5

2

Commencement

5

3

Authority

5

4

Duration

5

5

Definitions

5

6

References to factors and parameters from external

+64 pages of equations and requirements



1. Soil Carbon Project Requirements (CER)

High level summary (LOOC-C)

Project requirements

+ Frequently asked questions (permanence period, additionality etc)

Measurement of soil carbon sequestration (CER)

Australian Carbon Credit Units: **108,624 tCO₂-e** over 25 years
Est. Cost: High (\$50,000+)

Your benchmark over 40% in the region can achieve over 2.3% of Carbon. This method credits measured increases in soil carbon as a result of one or more new or materially different management activities in grazing or cropping land (including woody horticulture). Allowable activities include (but are not limited to):

- applying nutrients, lime or gypsum to the land,
- pasture rejuvenation,
- altering the stocking rate, duration or intensity of grazing,
- retaining stubble after a crop is harvested,
- converting from intensive tillage to reduced/no tillage,
- modification of landscape or landform features,
- use of mechanical methods to add or redistribute soil.

Project Requirements

In the 10 years prior to the project, land must have been under pasture, cropping or bare fallow, and not forested nor currently forest.

Soil carbon stocks must be estimated using specified soil sampling methods and samples must be measured for soil carbon content using specified laboratory techniques or calibrated in-field sensors. For more information see Climate Solutions Fund: Measurement of Soil carbon Sequestration.

Kirby • March 2021



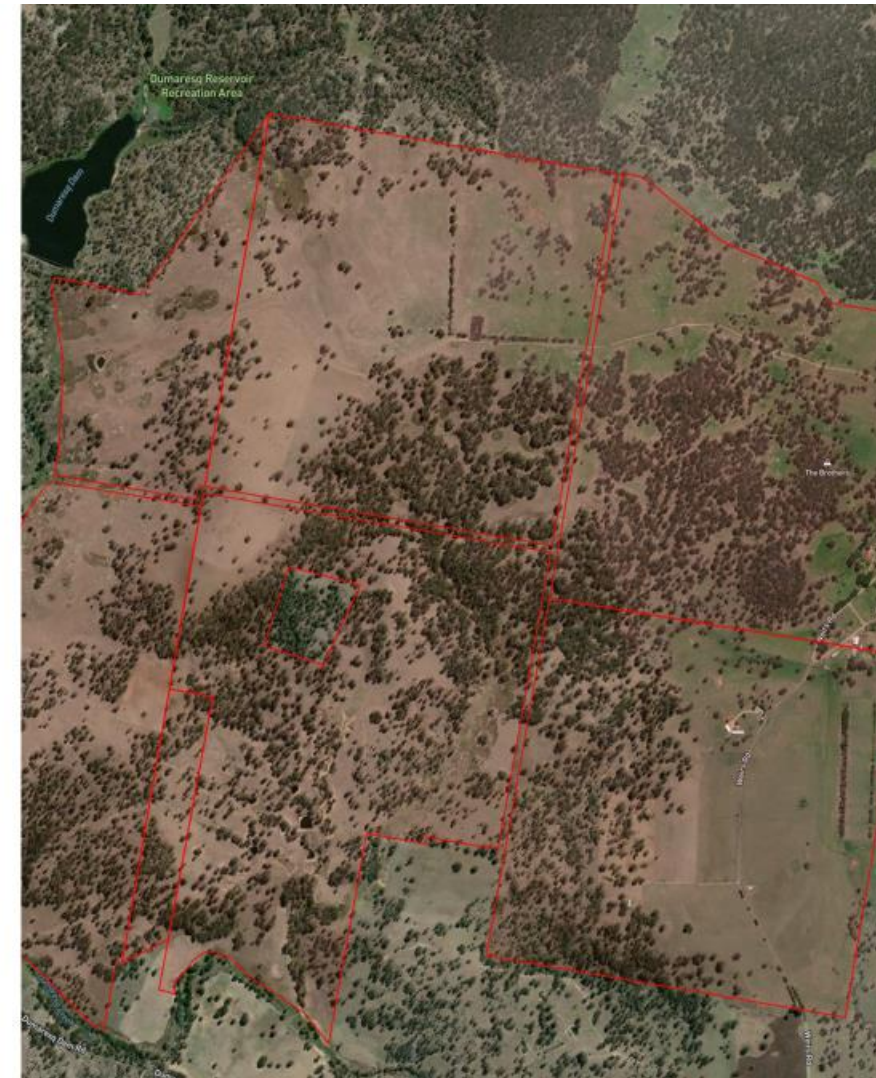
For further information on data used to outline this method, see Enclosure 1.
Source: <https://looc-e.farm/methodDiscovery>



2. Soil Carbon Project Requirements (CER)

- **Size (Used to calculate abatement potential)**
- **Ground Cover (Big driver of SOC)**
- **Woody Coverage (>20% canopy cover excluded)**
- **Cadastral Boundaries (for basis for CEAs)**
- **Soil Types/Soil Productivity (Useful for stratification and to reduce variance)**

Kirby • March 2021



KIRBY

Location: Armidale

Size: 649 hectares (1603.71 acres)

Current Ground Cover: ~80%

Current Woody Coverage: ~60%

Primary Land use summary: Grazing

Lot and DP numbers provided as follows:

DP50001235 - LOT 1

DP5123459 - LOT 3

DP 50123456 - LOT 4 & 7



2. Soil Carbon Project Requirements (CER)

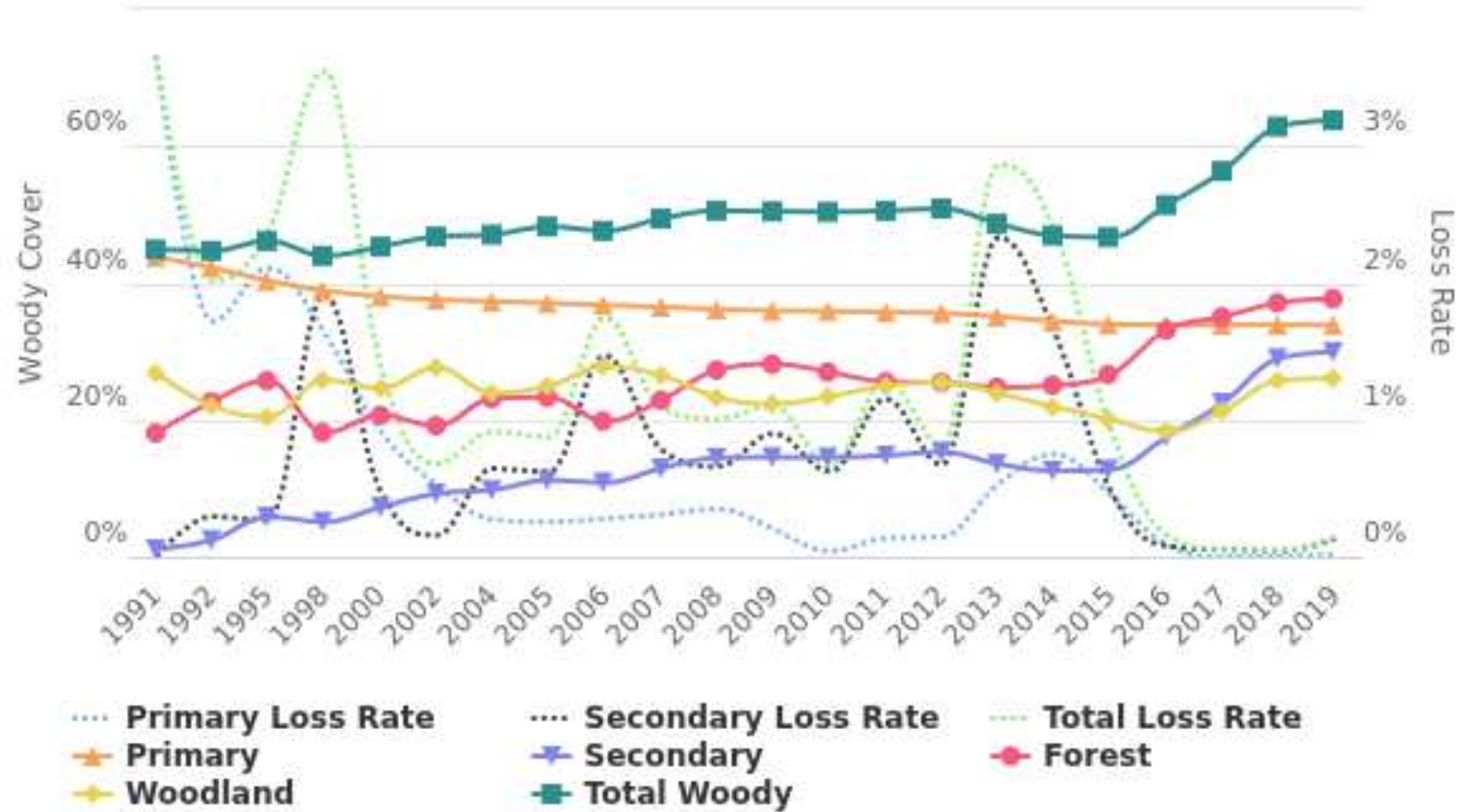
Ground Cover Benchmarking & Tree Cover

Benchmark



Annual Woody Cover Change

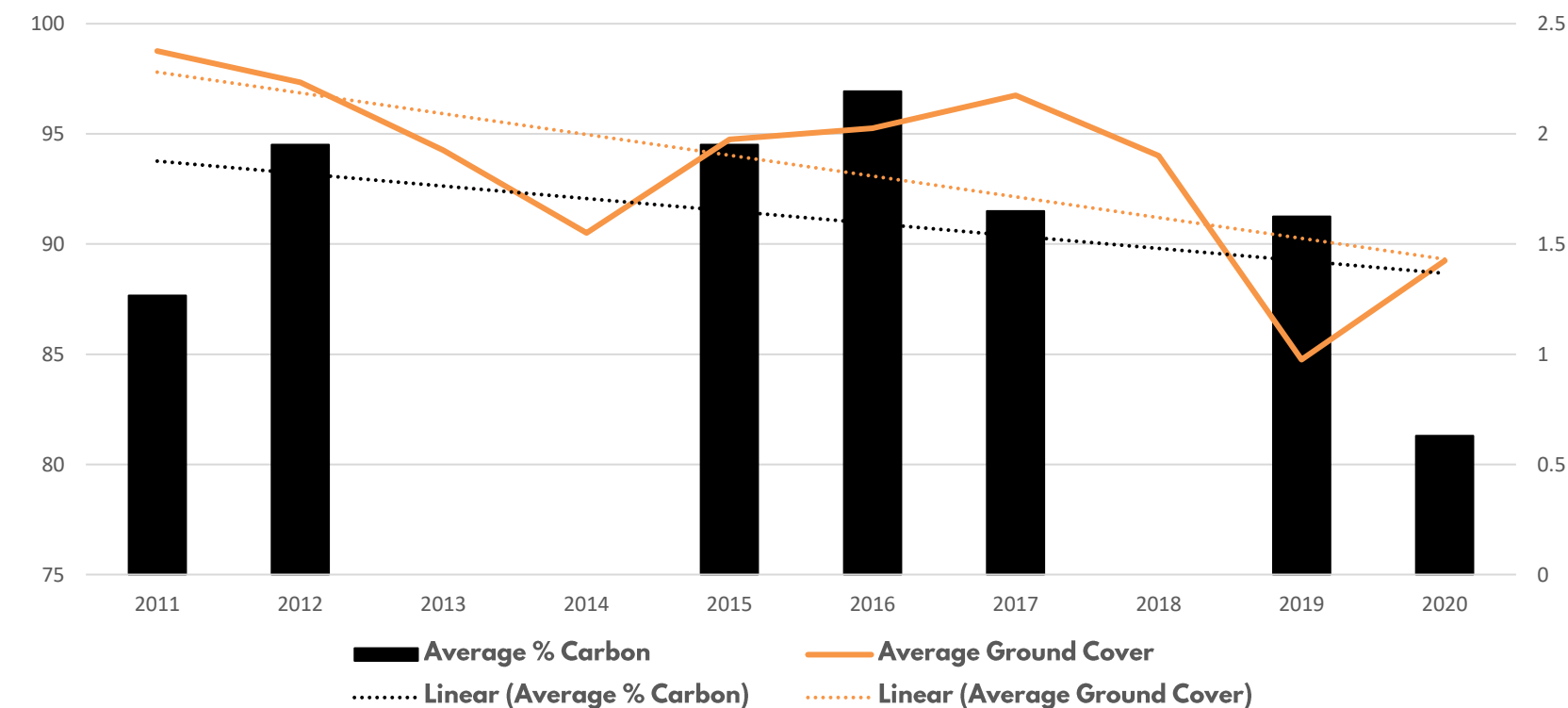
Property: Kirby



2. Soil Carbon Project Requirements (CER)

Soil Carbon vs Remotely Sensed Data

Groundcover vs Soil Carbon %



Doesn't correlate directly with remotely sensed data (NDVI of 0.1 does not mean Soil Carbon is at 1%)

BUT

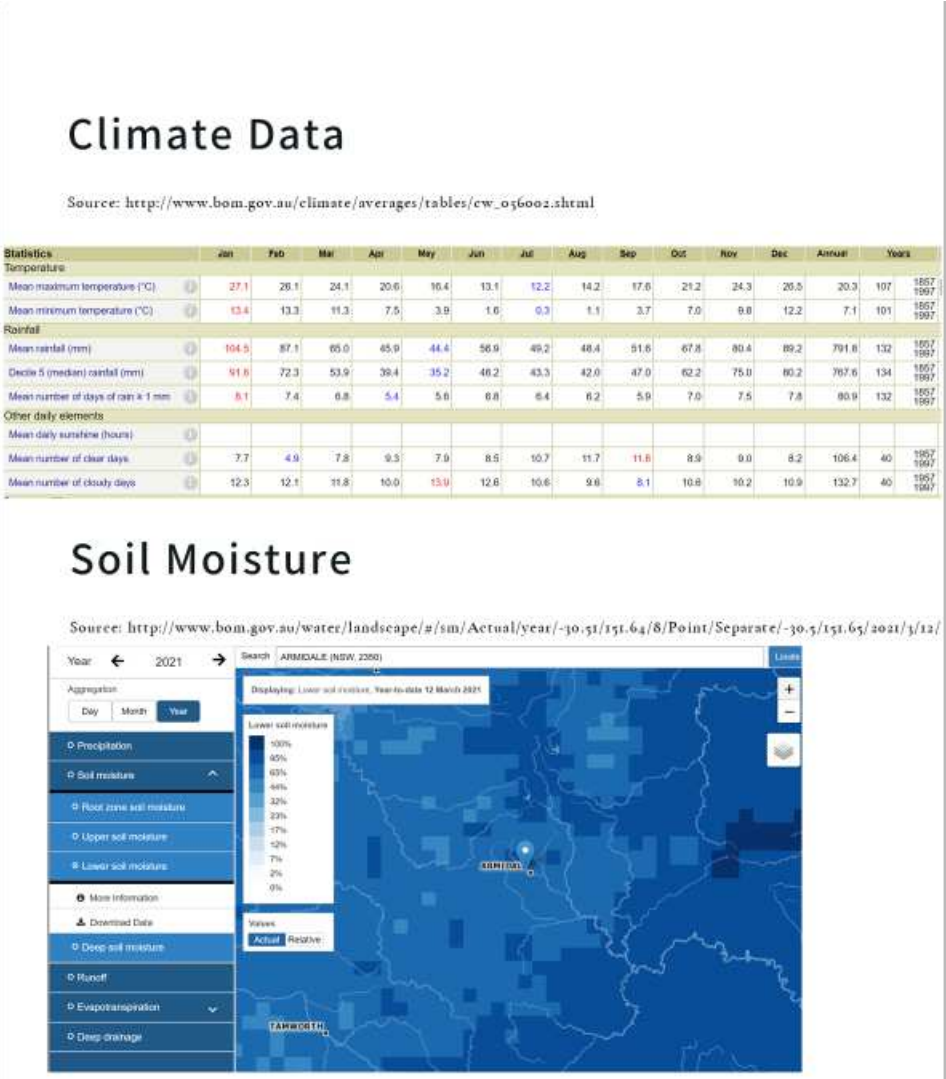
We can use remotely sensed data to analyse changes over time, and indicate where farmers can focus their management efforts



3. Understanding limitations

- >300mm rainfall ✓
- Available Water Capacity ✓
- Propensity to change ✓

Kirby • March 2021



Limitations

Rainfall is a major risk in sequestering soil carbon, driving the major ability to grow roots.

In this area, Average Rainfall is 798.1mm per annum, below 300mm it is considered unlikely that soil carbon can be increased significantly.

Other Limitations include toxicity at depth, preventing root growth and impacting plant available water. It is recommended advice be sourced from an experienced agronomist/professional to appropriately determine this.



Success depends on the



Questions?

SAM DUNCAN - CEO

SAM@FARMLAB.COM.AU

0422 511 949

