



28 July 2023

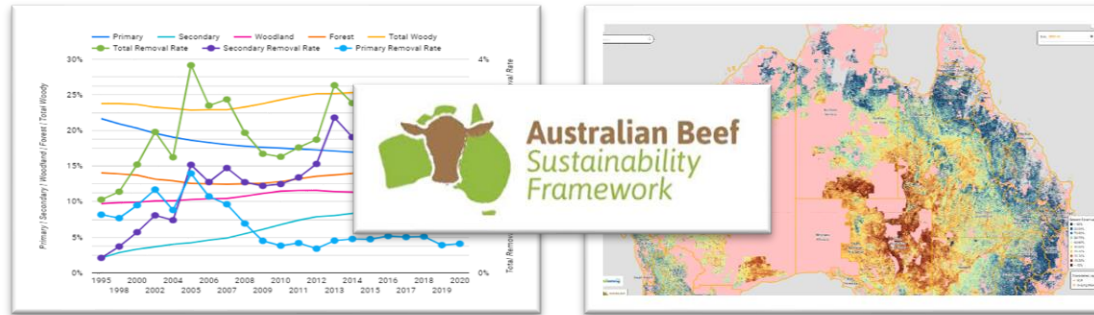
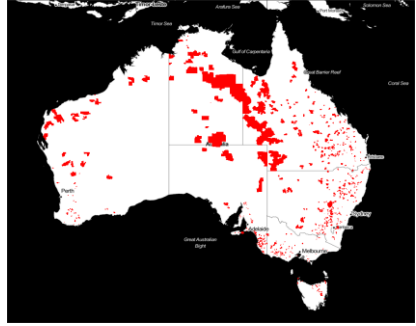
The Australian Feedbase Monitor and PastureKey Services – new tools for managing your feedbase

Phil Tickle

MD. Cibo Labs.

E: ptickle@cibolabs.com.au, support@cibolabs.com.au





National industry reporting



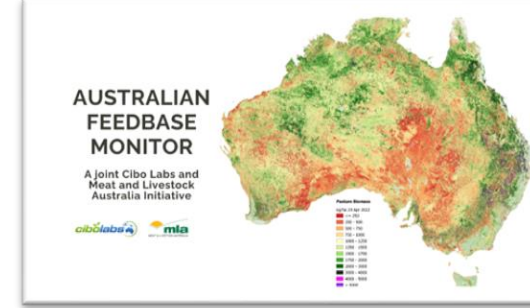
Farm and supply chain reporting / benchmarking



Field data collection systems



Paddock pasture monitoring



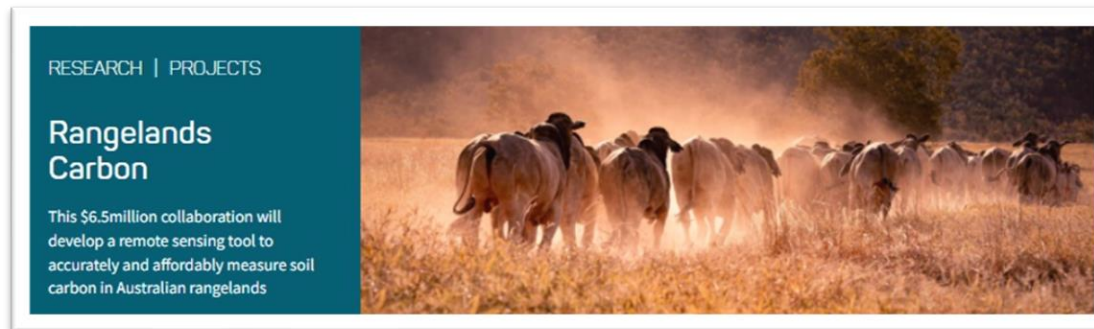
National, state, industry services



CeresTag animal tracking



Farm mapping systems



Long-term collaborative R&D



Cross industry integration



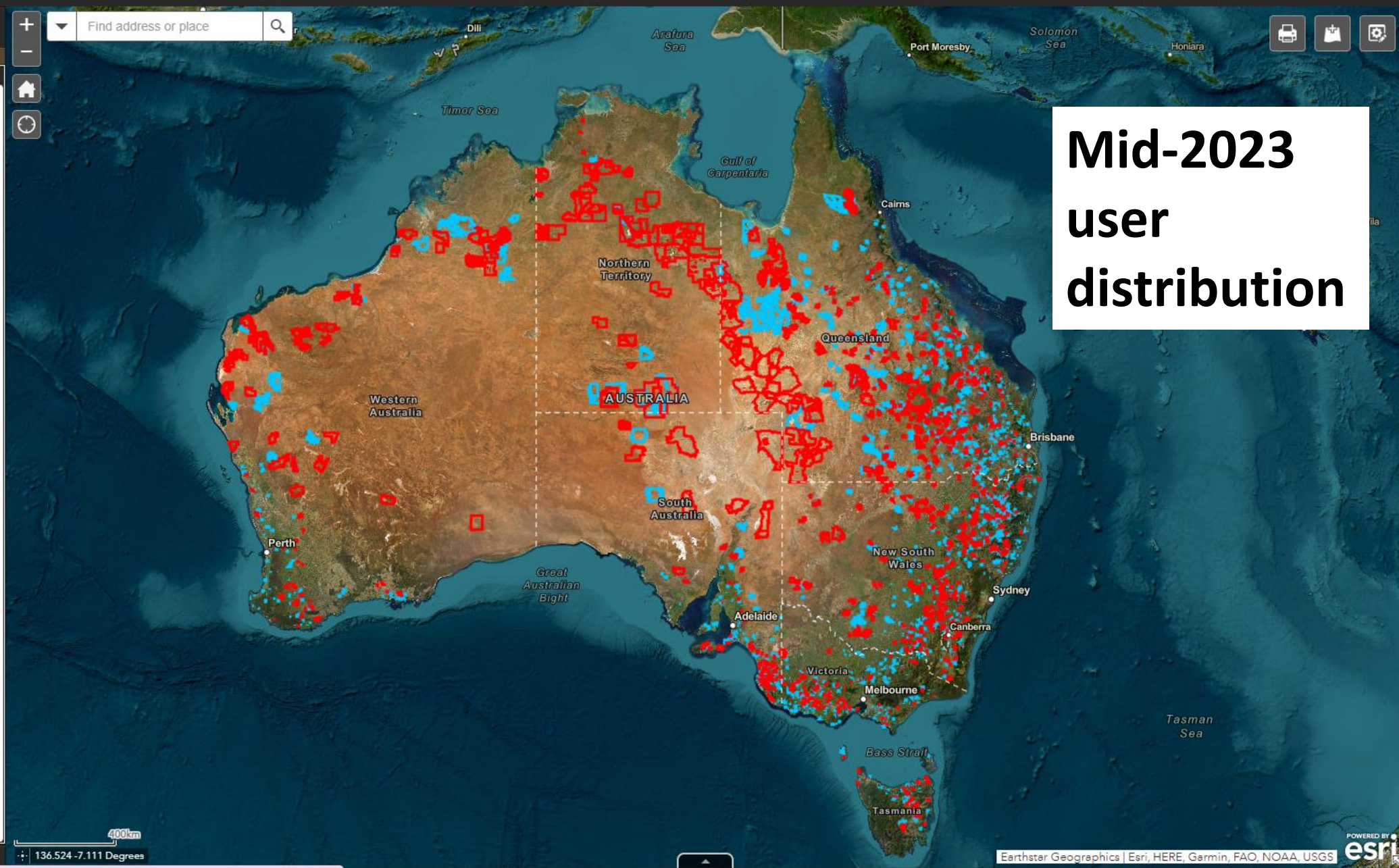


Layer List

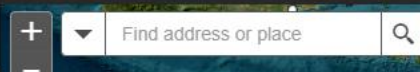
Layers



- ☐ NT_Cadastre_All ...
- ☐ Vicmap Parcel ...
- ☐ NSW Cadastre Lots - Lot M ...
- ☐ QLD RuralProperties - Properties ...
- ☐ STATES_LGA_POLYGON ...
- ☒ PropertyLayers - Point ...
- ☒ PropertyLayers - Line ...
- ☐ PastureBiomass - Transect ...
- ☐ PastureBiomass - Quadrat ...
- ☒ MyFarm Project ...
- ☒ MyFarm_Paddock ...
- ☒ MyFarm_Property ...
- ☒ AFM_Property ...
- ☐ NLP_LAND ...
- ☐ IBRA_SUBREGIONS ...
- ☐ STATES_ALL_POLYGON ...
- ☒ TSDM2023QA_20230211 ...



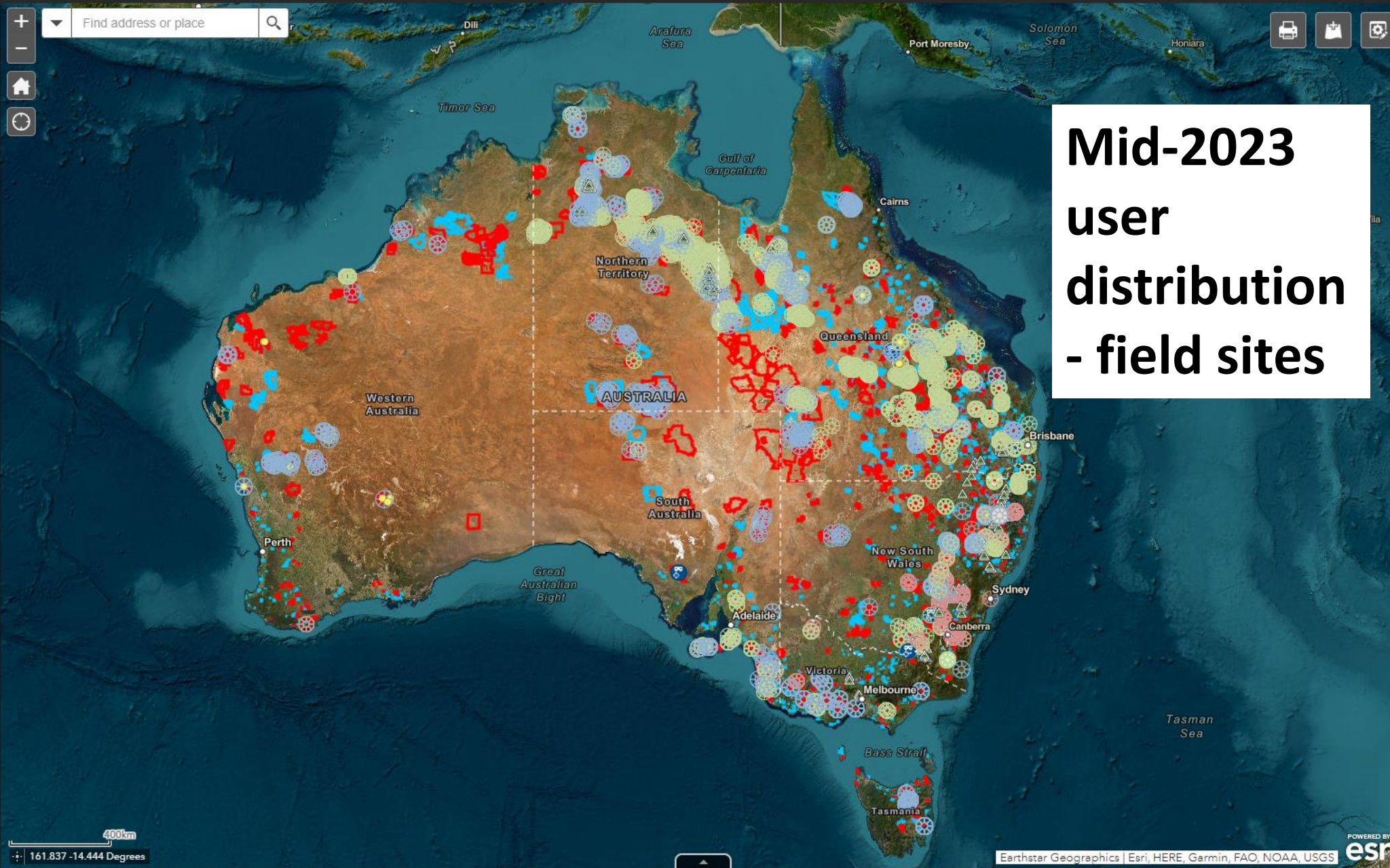
**Mid-2023
user
distribution**



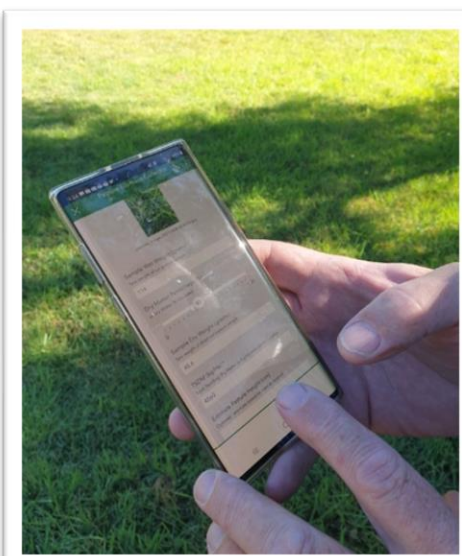
Layer List

Layers

- ☐ NT_Cadastre_All
- ☐ Vicmap Parcel
- ☐ NSW Cadastre Lots - Lot M
- ☐ QLD RuralProperties - Properties
- ☐ STATES_LGA_POLYGON
- ☒ PropertyLayers - Point
- ☒ PropertyLayers - Line
- ☒ PastureBiomass - Transect
- ☐ PastureBiomass - Quadrat
- ☒ MyFarm Project
- ☒ MyFarm_Paddock
- ☒ MyFarm_Property
- ☒ AFM_Property
- ☐ NLP LAND
- ☐ IBRA_SUBREGIONS
- ☐ STATES_ALL_POLYGON
- ☒ TSDM2023QA_20230211



**Mid-2023
user
distribution
- field sites**



Publicly available mobile pastures

The driver of the truck

Windy

Pine Ridge State Forest

Parraweena

3km

150.556 -31.546 Degrees

Pasture Biomass Collector - Review with ArcGIS Web AppBuilder

Find address or place

Layer List

- ☒ PastureBiomass - Site
- ☒ PastureBiomass - Quadrat
- ☐ CIBO_Paddock
- ☒ CIBO_Property

Pasture Quadrat: 4

ObjectID	1132
GlobalID	2e01e3be-4f50-422a-83f6-e873ab0567a8
Sample Identifier	4
Sample Wet Weight (grams)	42.00
Platemeter Height (cm)	
Dry Matter Percentage (%)	62
Sample Dry Weight (grams)	26.04
TSDM (kg/Ha)	2,604.00
Estimate Pasture Height (cm)	20

Zoom In

Scale: 150.369 31.655 Degrees

Community Maps Contributors, Spatial Services, Esri, HERE, Garmin, METI/NASA, US, ...

PastureBiomass - Site PastureBiomass - Quadrat CIBO_Property

Options Filter by map extent Zoom to Clear selection Refresh

ObjectID	GlobalID	Sample Identifier	Sample Wet Weight (grams)	Platemeter Height (cm)	Dry Matter Percentage (%)	Sample Dry Weight (grams)	TSDM (kg/Ha)	Estimate Pasture Height (cm)	Quadrat Type	Quadrat Status	ParentGlobalID
1094	fcc9d478-fdd4-4f13-a5a7-bd3065e6a302	1051	34.00		35	11.90	1,190.00		Wet Weight Sample		47c0b061-c8cb-435d-99b1-fd020d52d012
1095	e97a79a1-1ffa-4c35-abcf-3739d9be4ac		14.00		35	4.90	490.00		Wet Weight Sample		47c0b061-c8cb-435d-99b1-fd020d52d012
1096	0fa01fa8-a144-4ec7-bf09-8f64caaff7b1		262.00		35	91.70	9,170.00		Wet Weight Sample		47c0b061-c8cb-435d-99b1-fd020d52d012

20 features 0 selected

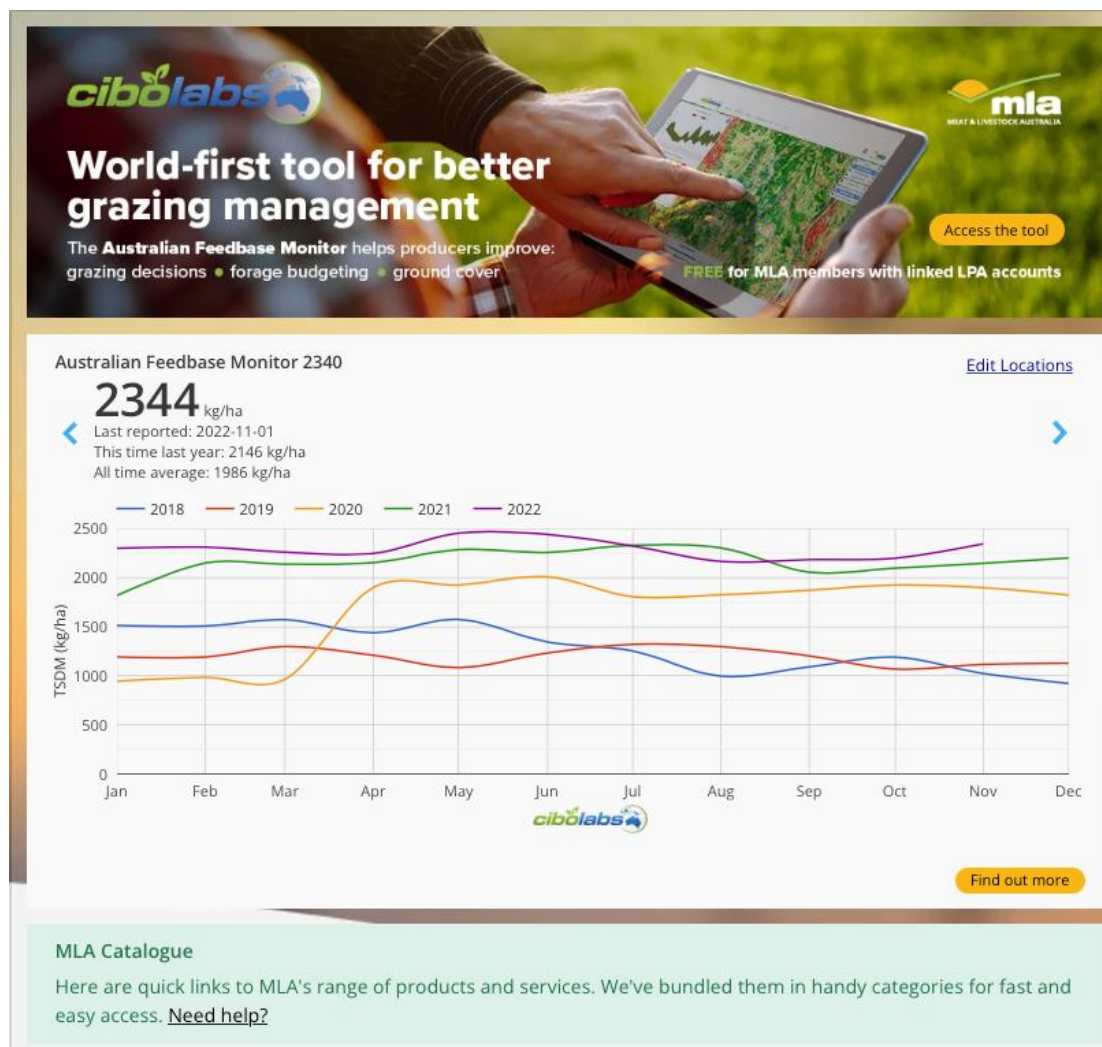
The Australian Feedbase Monitor



Overview

- The AFM is a \$4.7m co-funded (50:50) investment by Cibo Labs and the MLA Donor Company to deliver industry-wide benefits.
- Objective, consistent and repeatable feedbase assessments for every farm, every month.
- Creating a foundation for “spatially-enabling” the industry.

Using the AFM



01

Create myMLA Account

A myMLA account will allow you to access all your MLA information

02

Link your LPA Account

Your LPA is needed to link your property or properties. You can link through the myMLA account

03

Access the AFM

Click on find out more go to the Cibo page

04

Complete your details

Live demonstration

Using the Australian Feedbase Monitor



+ Farm setup

1. Farm Details

2. Farm Address

Street Address

Suburb

State Postcode

Or

Upload a farm boundary file.

Accepted file types: .json, .geojson, .kml

3. Select Parcels



Locate your property on the map and select one or more polygons that make up your property.

On the map, left click to select a parcel of land, left click it again to de-select it.

20 Parcels selected:

1 / 242560

1 / 125998

1 / 132500

3 / 167412

1 / 169200

1 / 136765

1 / 161385

13 / 46123

1 / 173601

1 / 167443

2 / 132529

5 / 167412

1 / 124469

1 / 114442

2 / 157851

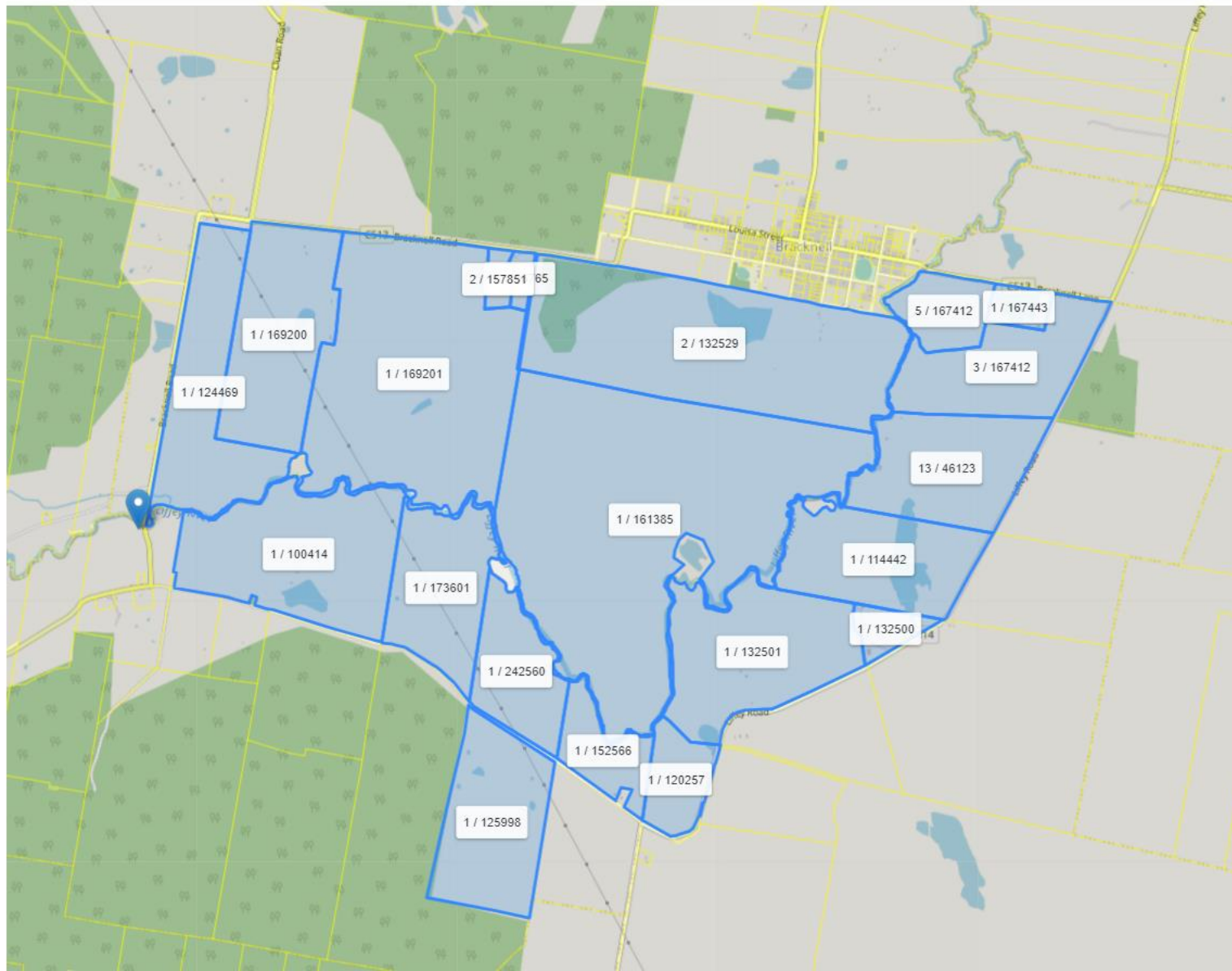
1 / 100414

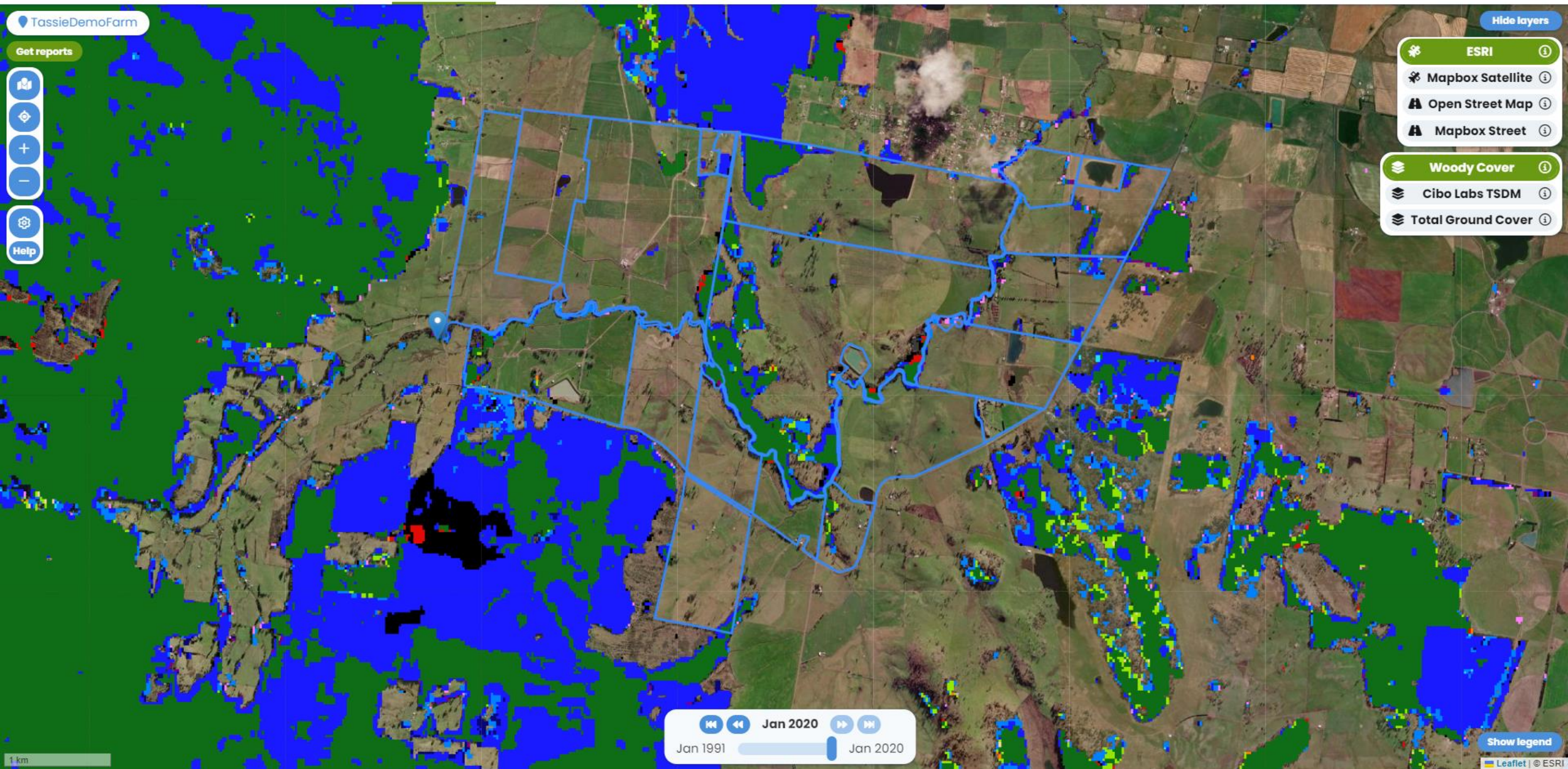
1 / 152566

1 / 120257

1 / 169201

1 / 132501





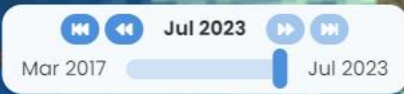
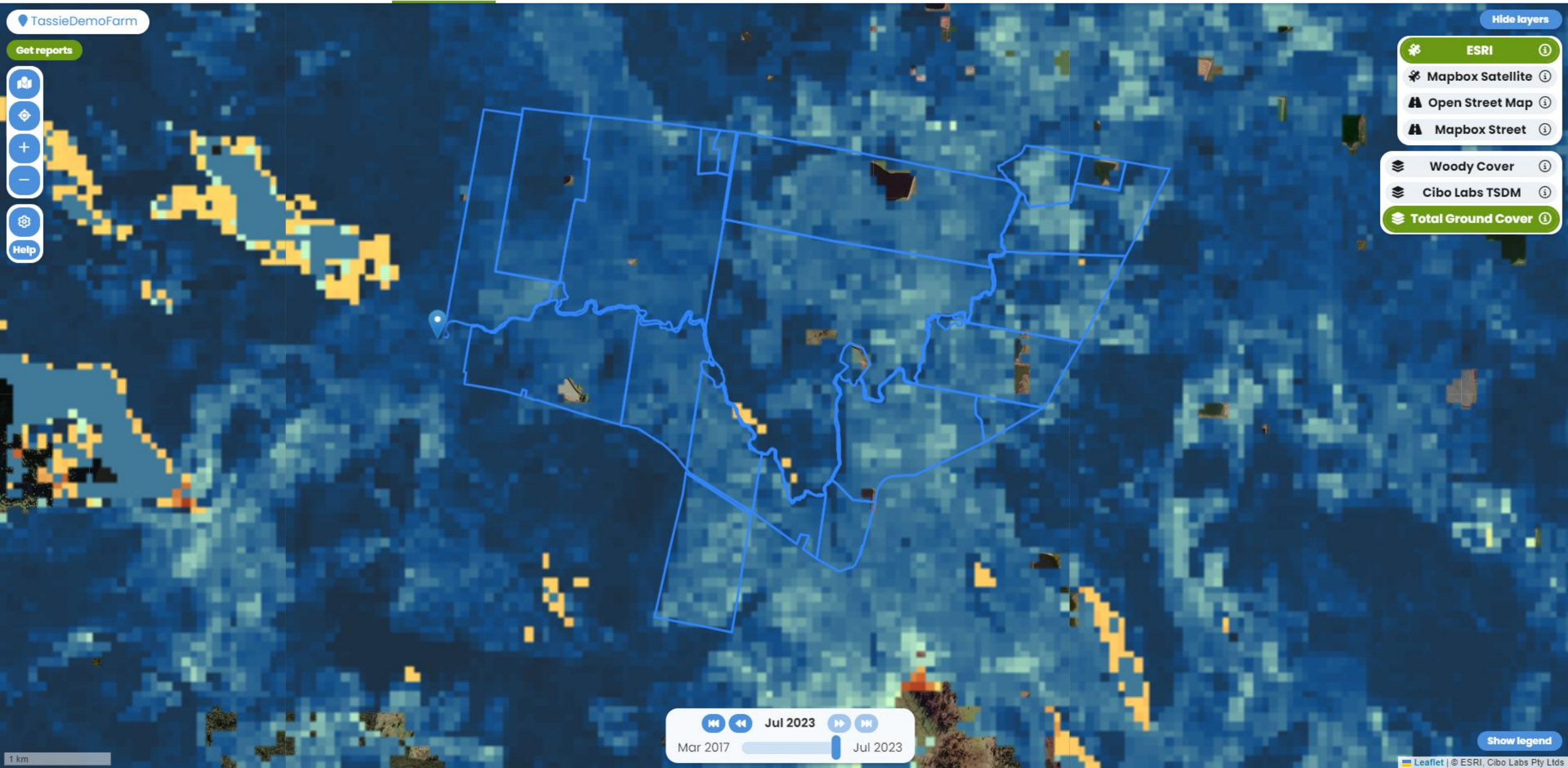
TassieDemoFarm

Get reports

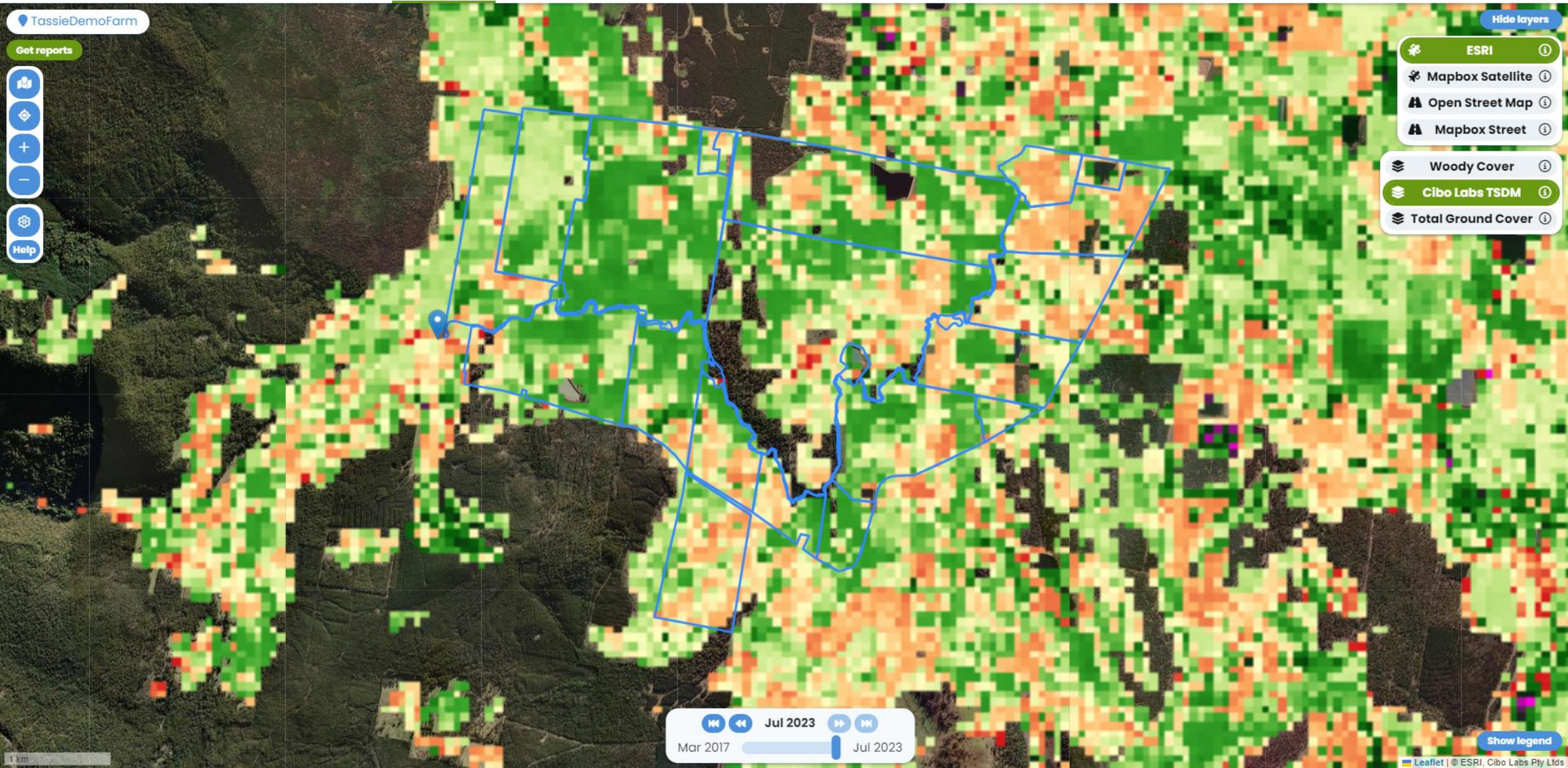


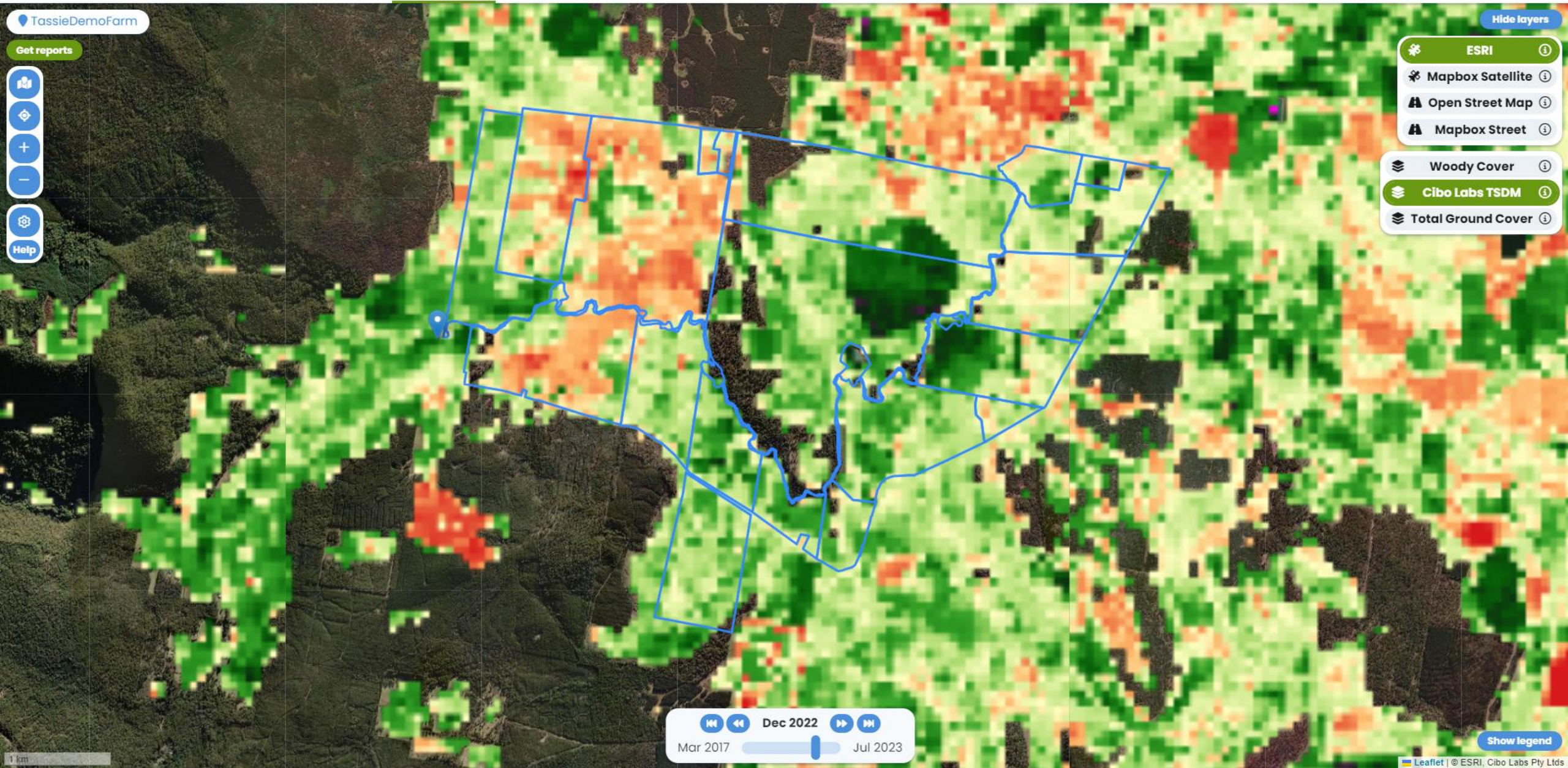
Hide layers

- ESRI
- Mapbox Satellite
- Open Street Map
- Mapbox Street
- Woody Cover
- Cibo Labs TSDM
- Total Ground Cover



Show legend



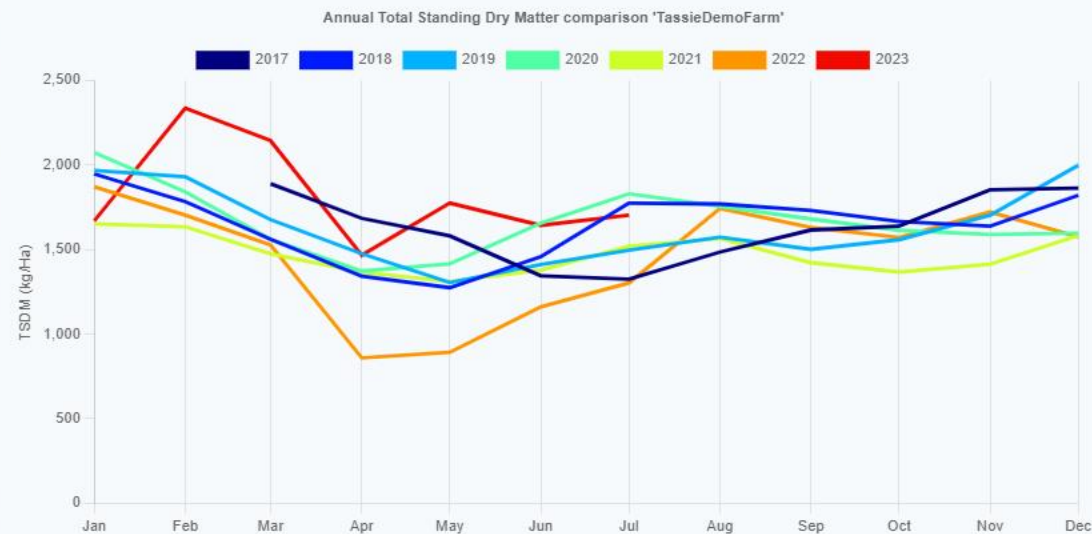
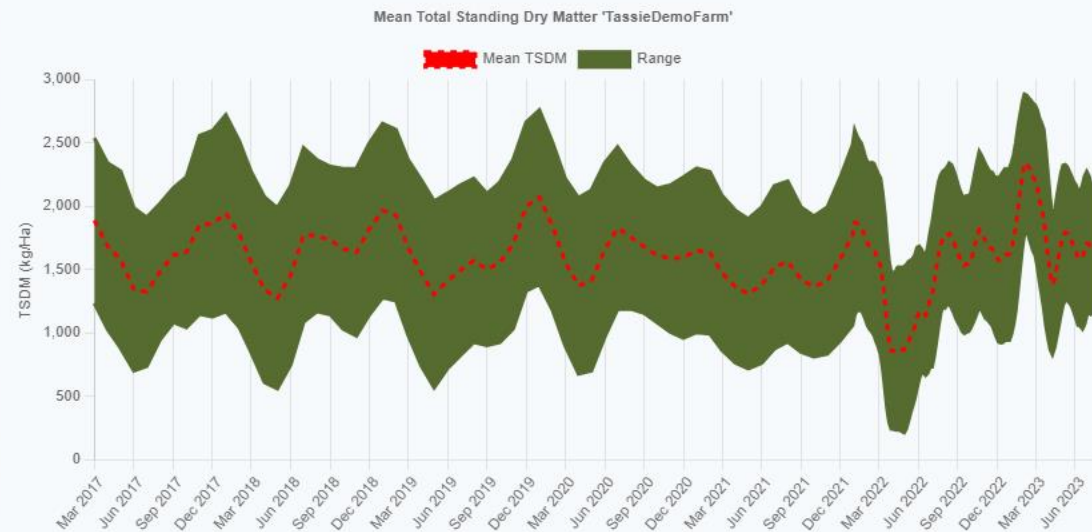


TassieDemoFarm

Get reports



TassieDemoFarm charts



Download farm chart data

Get reports

Hide layers

- ESRI
- Mapbox Satellite
- Open Street Map
- Mapbox Street
- Woody Cover
- Cibo Labs TSDM
- Total Ground Cover

Show legend

Welcome to the MLA Feed demand calculator

This calculator shows you how closely your herd or flock demand matches your pasture growth.

It calculates, for each month of the year, the total feed demand of all the cattle and sheep on your property. You can then compare monthly demands to the likely supply of pasture. Use this tool to show you how much of your pasture your livestock are grazing, how big your pasture shortage or surplus at various times of the year might be and how many kilograms of liveweight you produce per hectare.

Instructions

Background information and how to use

Read more about the purpose of the pasture improvement calculator and how to use it effectively.

[READ INSTRUCTIONS](#)

1. Pasture simulation

Create your current pasture scenario

Select pastures based on your location and set the type and area that is available in each month.

[SIMULATE PASTURE](#)

2. Livestock inventory

Create your current livestock scenario

Create an inventory of all existing, purchased and sold livestock for your given enterprise.

[SIMULATE LIVESTOCK](#)

3. Feed supply and demand

Revise key performance indicators

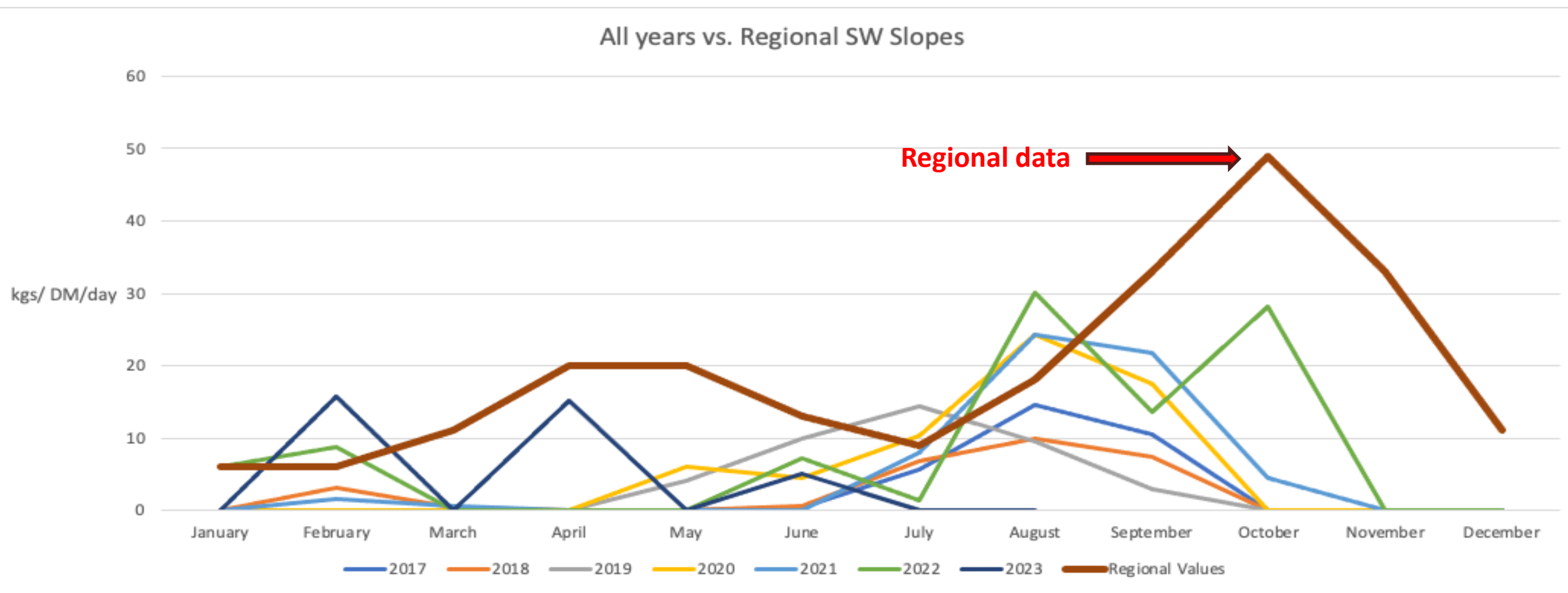
Produce graphs showcasing the monthly feed demand versus supply as well as the key performance indicators.

[VIEW SUPPLY & DEMAND](#)

This calculator was developed for MLA by CSIRO, with DJM Livestock Consultants P/L and PSA Services, and is based on the more detailed decision support tools, GrazFeed and GrassGro.

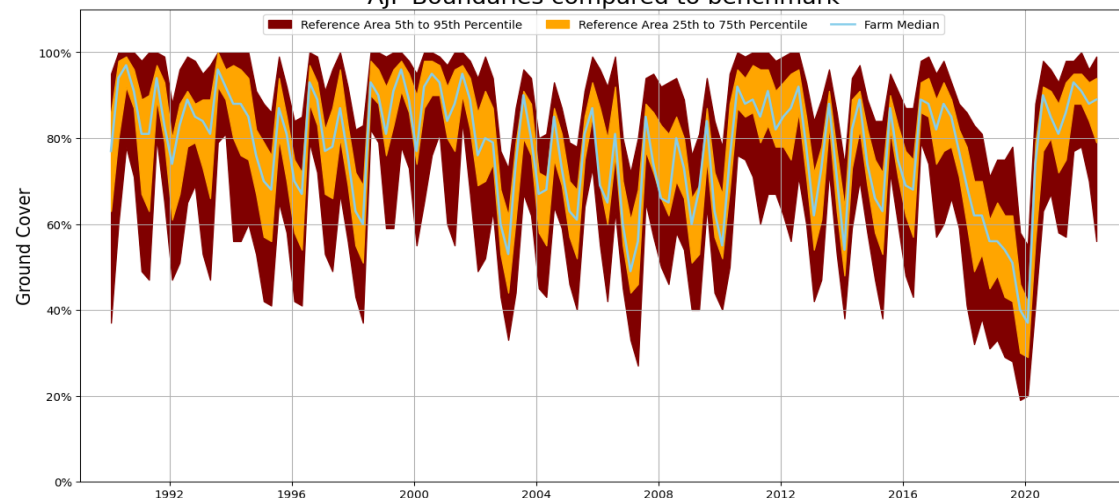


Feed demand and supply based on regional and local data

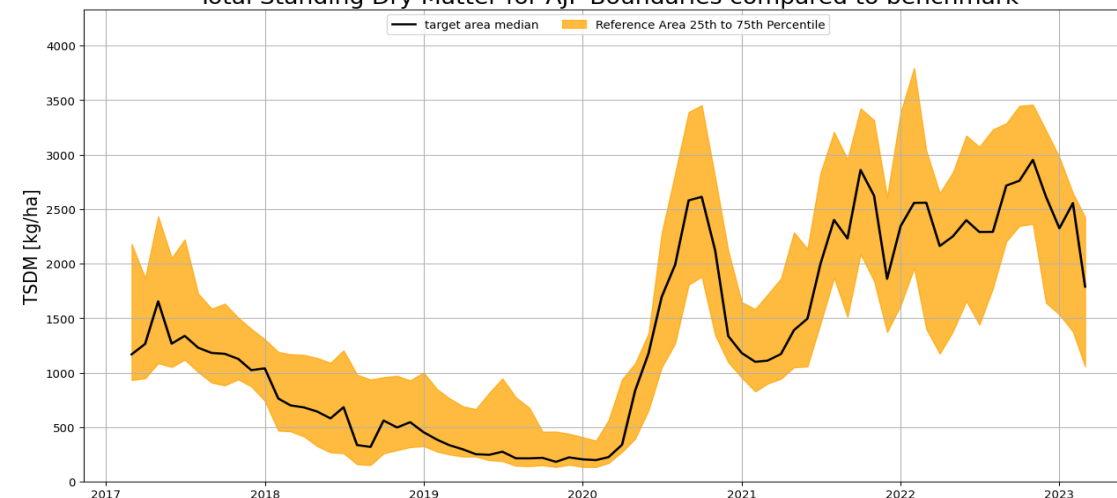


Pasture growth analysis and benchmarking

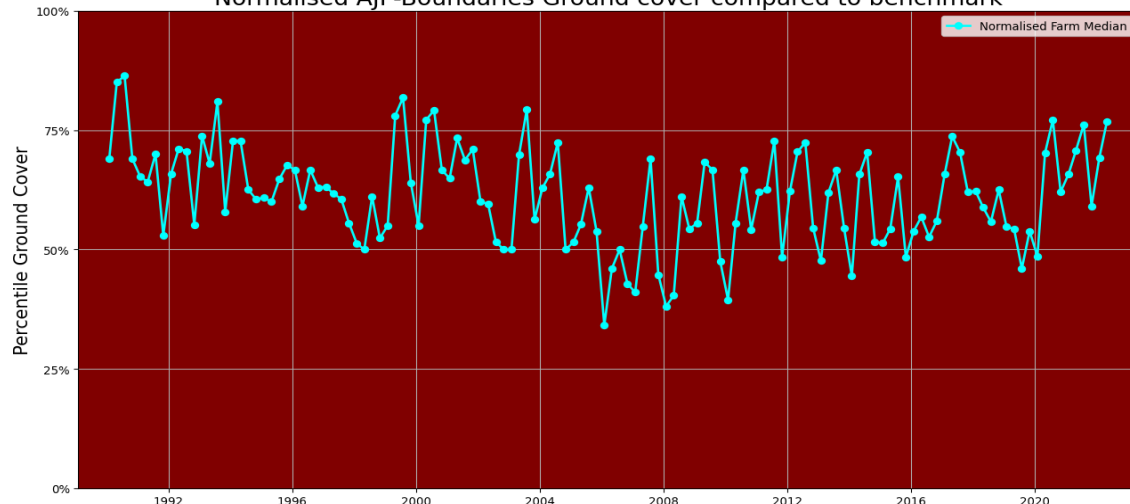
AJF-Boundaries compared to benchmark



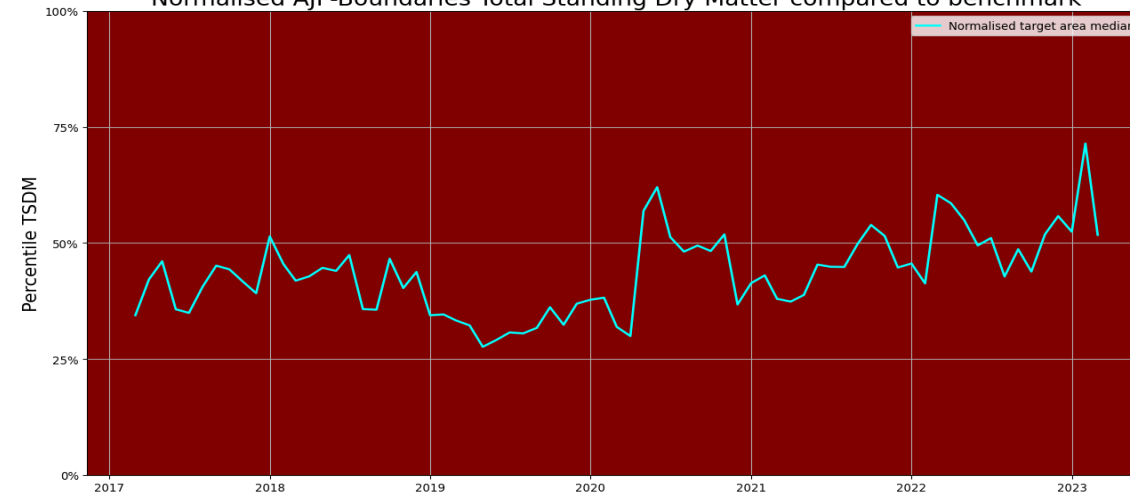
Total Standing Dry Matter for AJF-Boundaries compared to benchmark



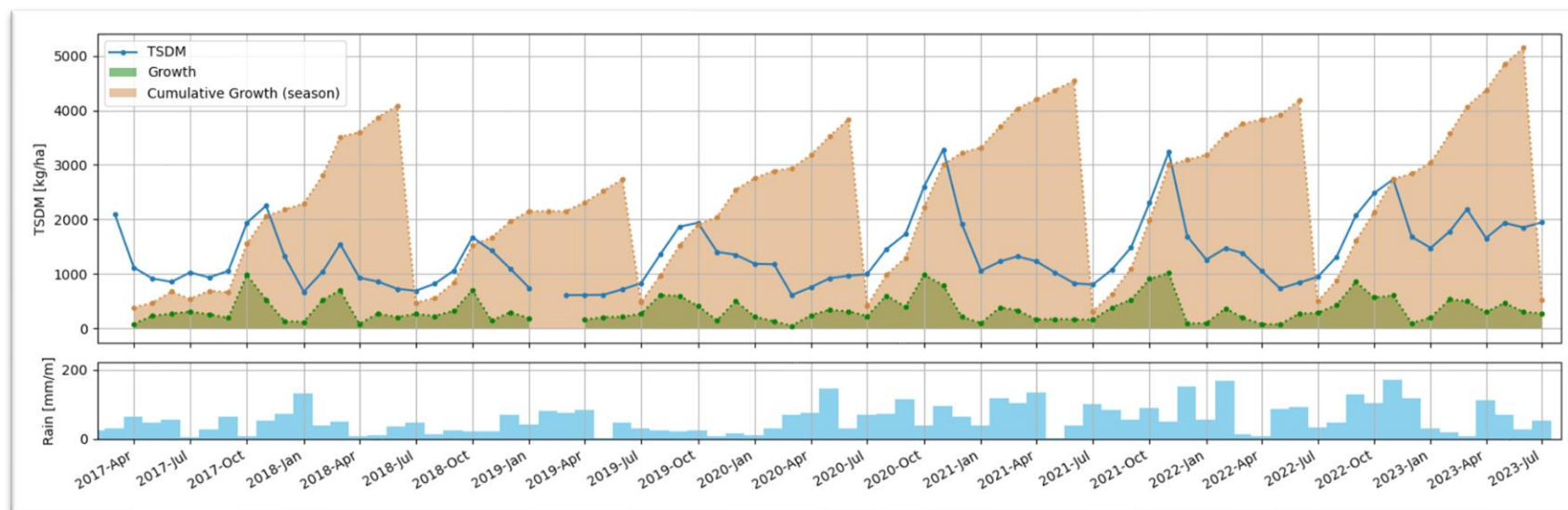
Normalised AJF-Boundaries Ground cover compared to benchmark



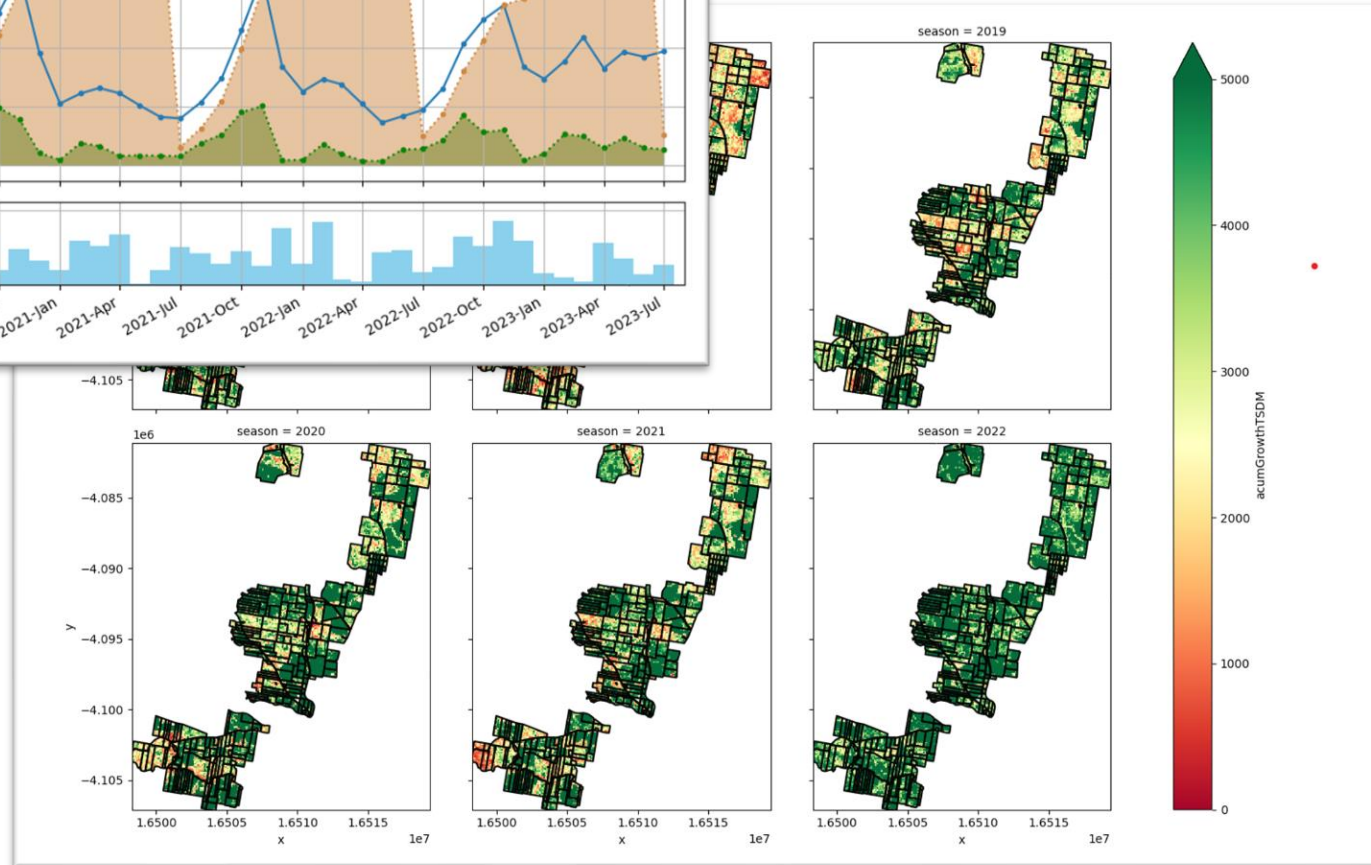
Normalised AJF-Boundaries Total Standing Dry Matter compared to benchmark



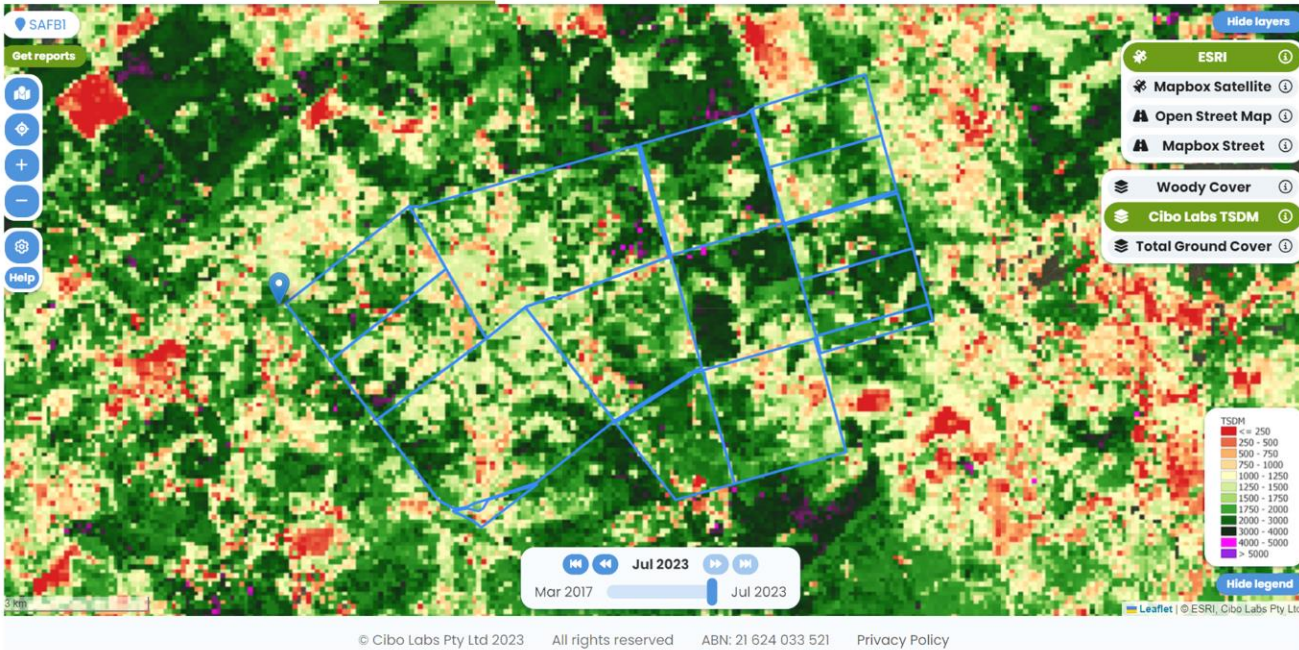
Pasture growth analysis and benchmarking



TSDM – growth per season



Planned for
release in the
coming months

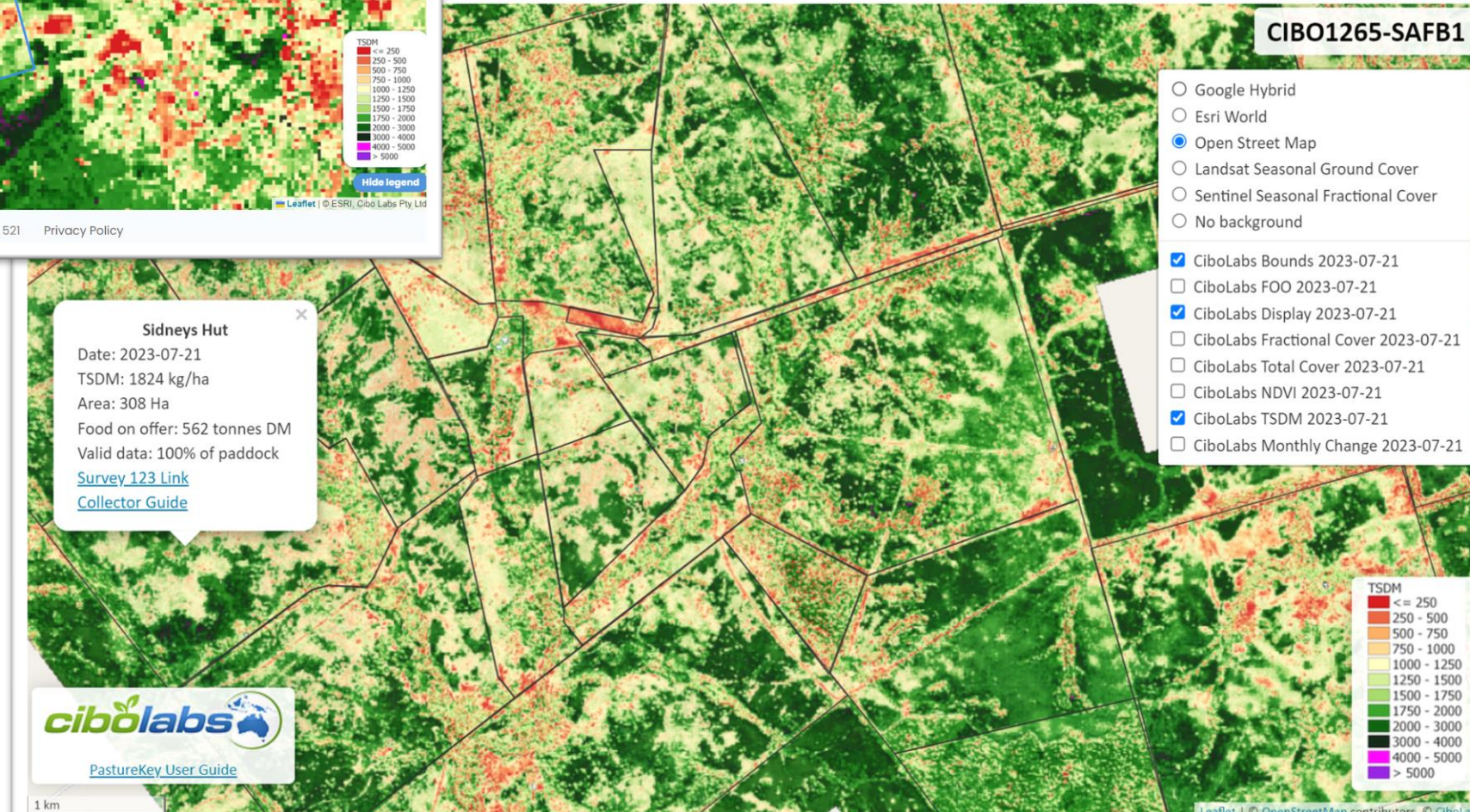


Australian Feedbase Monitor

- Land Parcel and Farm Level Reporting
- 1ha resolution
- Rolling monthly estimates on a 5-day interval
- Strategic planning, analysis and reporting.

PastureKey Service

- Paddock level analysis and reporting
- 10m resolution imagery inc. multispectral, Fractional Cover and Biomass (TSDM)
- Rolling 5 day and 15 day estimates updated every 5 days.
- Tactical, paddock-to-farm level forage budgeting (MAE of <250kg/ha) ,decision support and reporting
- Data sharing across platforms such as AgriWebb.



- ☐ Google Hybrid
- ☒ Esri World
- ☐ Open Street Map
- ☐ Landsat Seasonal Ground Cover
- ☐ Sentinel Seasonal Fractional Cover
- ☐ No background
- ☒ CiboLabs Bounds 2023-07-24
- ☐ CiboLabs FOO 2023-07-24
- ☒ CiboLabs Display 2023-07-24
- ☐ CiboLabs Fractional Cover 2023-07-24
- ☐ CiboLabs Total Cover 2023-07-24
- ☐ CiboLabs NDVI 2023-07-24
- ☐ CiboLabs TSDM 2023-07-24
- ☐ CiboLabs Monthly Change 2023-07-24



[PastureKey User Guide](#)

- ☒ Google Hybrid
 - ☐ Esri World
 - ☐ Open Street Map
 - ☐ Landsat Seasonal Ground Cover
 - ☐ Sentinel Seasonal Fractional Cover
 - ☐ No background
-
- ☒ CiboLabs Bounds 2023-07-24
 - ☐ CiboLabs FOO 2023-07-24
 - ☐ CiboLabs Display 2023-07-24
 - ☒ CiboLabs Fractional Cover 2023-07-24
 - ☐ CiboLabs Total Cover 2023-07-24
 - ☐ CiboLabs NDVI 2023-07-24
 - ☐ CiboLabs TSDM 2023-07-24
 - ☐ CiboLabs Monthly Change 2023-07-24



PastureKey User Guide

- ☒ Google Hybrid
 - ☐ Esri World
 - ☐ Open Street Map
 - ☐ Landsat Seasonal Ground Cover
 - ☐ Sentinel Seasonal Fractional Cover
 - ☐ No background
-
- ☒ CiboLabs Bounds 2023-07-24
 - ☐ CiboLabs FOO 2023-07-24
 - ☐ CiboLabs Display 2023-07-24
 - ☐ CiboLabs Fractional Cover 2023-07-24
 - ☐ CiboLabs Total Cover 2023-07-24
 - ☐ CiboLabs NDVI 2023-07-24
 - ☒ CiboLabs TSDM 2023-07-24
 - ☐ CiboLabs Monthly Change 2023-07-24

Sullys Dam

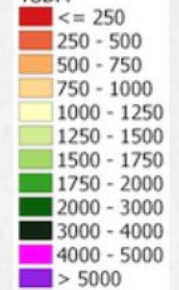
Date: 2023-07-24

TSDM: 2342 kg/ha

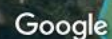
Area: 407 Ha

Food on offer: 954 tonnes DM

Valid data: 99% of paddock

[Survey 123 Link](#)[Collector Guide](#)**TSDM**[PastureKey User Guide](#)

- ## Movements



No FOO records < 600 900+ 1200+ 1500+ 1800+ 2100+ 2400+ 2700+ 3000+

Take home messages

1. The AFM offers all producers access to accurate, regular and objective assessments of pasture biomass at farm-scale.
 - A world-first capability that needs producers to engage in improvement.
2. The PastureKey Service provides paddock level estimates of pasture biomass at paddock scales for tactical decision making.
3. PastureKey integrates with Agriwebb and other systems.
4. A number of natural capital and environmental credential reporting systems are available and under development.
5. Use the information to add value and accuracy to your decisions and with other tools such as feed budget and stocking rate calculators.

Tools, resources & training

- www.cibolabs.com.au
Documentation
<https://support.cibolabs.com.au/en/knowledge>
- www.mla.com.au/mymla
- <https://www.mla.com.au/extension-training-and-tools/>



28 July 2023

The Australian Feedbase Monitor and PastureKey Services – new tools for managing your feedbase

Phil Tickle

MD. Cibo Labs.

E: ptickle@cibolabs.com.au, support@cibolabs.com.au

