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Loam 2021 Pilot Program

Final Report

During the 2021 season, Loam Bio conducted three CarbonBuilder pilots. The total project area was 1,154 ha, spread over three canola sites across New South Wales and Northern Victoria.

> A total of 7,518t CO_2e was sequestered during the 2021 Loam pilot program.

The project set out to achieve the following:

- Accelerate the adoption of innovative carbon removal technologies by showcasing the scalability and effectiveness of Loam's microbial inoculum in achieving significant soil carbon sequestration.
- Validate the performance and versatility of Loam's inoculum across diverse soil types and farming systems.
- Highlight the potential of Loam's products to create substantial additional revenue streams for growers, encouraging the widespread adoption of sustainable land management practices.

Benefits of increasing soil carbon:

- Soil health & structure
- Soil water holding capacity
- Nutrient cycling
- Lanscape resiliency

2021 Loam Pilot Sites	Crop Type	Project Area	SOC Stocks Results	CO_2e Sequestered/ha	Total CO_2e Sequestered
LOCKINGTON	Canola	397.60 ha	2.10t C/ha	7.70t CO_2e	3,061.52t CO_2e
WIRRINYA	Canola	483.08 ha	1.56t C/ha	5.72t CO_2e	2,763.22t CO_2e
MANILDRA	Canola	273.34 ha	1.69t C/ha	6.20t CO_2e	1,693.80t CO_2e
Total or Weighted Average* Over Project		273.34 ha	1.78t C/ha*	6.52t CO_2e*	7,518.53t CO_2e

Table 1) Summary of Carbon Laboratory Results and Interpretations of Results for Soil Core Samples Captured from 0-30cm below surface level

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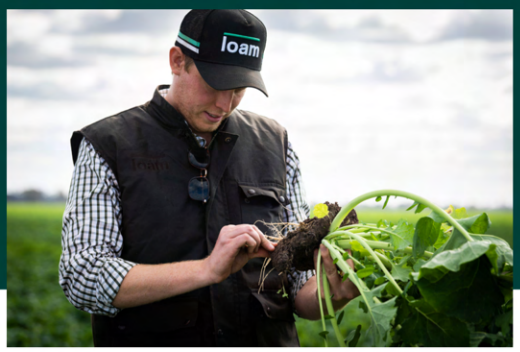
Project Methodology

The project was designed to closely mirror an Emissions Reduction Fund (ERF) methodology, though the pilot study did not involve formal registration with the Clean Energy Regulator (CER). This approach aimed to offer Loam an indicative understanding of the Australian Carbon Credit Unit (ACCU) generation potential of farms using the inoculum product. The pilots were run across three distinct sites, each featuring unique geographic conditions, management practices and soil types.

The major methodological activities conducted by Loam and the landowners throughout the 2021 pilot program lifecycle included:

- Mapping and sampling design
- Soil coring
- Inoculation of seed at crop sowing
- Laboratory testing



Grower Profiles

Three growers were carefully chosen to represent diverse conditions, including variations in geography, soil types, management approaches, and farming practices. Loam collaborates with both regenerative and conventional broadacre operations, aiming to drive widespread adoption of our technologies to achieve the greatest possible impact.

Lockington:
This grower operates within the regenerative agriculture space, managing 8,500 acres in the flat Murray Basin plains. They joined Loam's 2021 pilot program to enhance their ongoing efforts in improving plant health and stimulating root function in crops using Loam's inoculum. This partnership aims to boost carbon sequestration and soil functionality. Dedicated to creating a resilient, healthy, and highly productive cropping system, the grower focuses on producing nutrient-dense food without relying on synthetic or artificial inputs.

Wirrinya:
Loam has partnered with a grower based in Wirrinya, New South Wales, managing over 4,000 acres of farmland on the fertile alluvial floodplains near Lake Cowal. This collaboration highlights the carbon-building potential of broadacre farming systems and showcases how Loam's innovative biological technology can be seamlessly adopted by conventional growers. By participating in Loam's pilot program, the grower is exploring opportunities to diversify revenue streams while enhancing soil health and sustainability.

Manildra:
Spanning approximately 4,500 acres across the rolling slopes and plains of Manildra, this mixed farming enterprise exemplifies innovation and sustainability in agriculture. The growers are committed to reducing their reliance on synthetic fertilisers by integrating nitrogen-fixing cover crops, companion planting, organic wheat production, and grazing animals into their crop rotations. With a focus on lowering greenhouse gas emissions and enhancing soil health, they are keen to explore how Loam's CarbonBuilder can contribute to long-term improvements in nutrient cycling, soil fertility, and water-holding capacity.