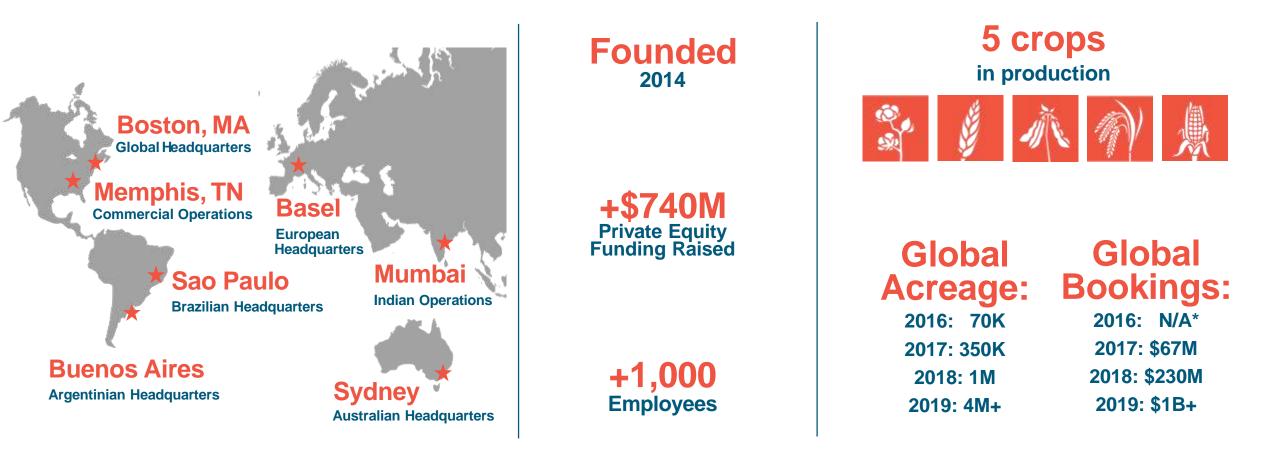
#### SEPTEMBER 2019

# Inclos

Indigo



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In 2016, our introductory year, we planted ~50,000 acres of commercial cotton trials and ~20,000 acres of commercial wheat trials (non-revenue generating). Data from these commercial trials (11% yield increase in cotton and 8% yield increase in wheat) gave growers confidence in our products for 2017 adoption.



#### Harnessing Nature to Help Farmers Sustainably Feed the Planet

... by focusing on improving farmer profitability



... by improving the sustainability of agriculture



... and by better aligning agricultural practices with consumer health



## Indigo works across the value chain to support a decommoditized system of agriculture

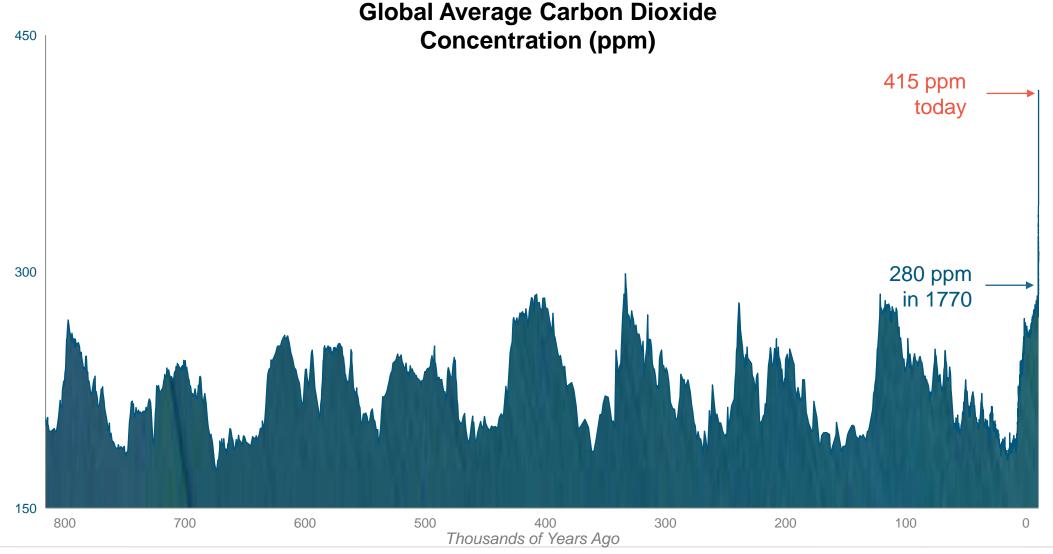




### terraton INITIATIVE

A global effort to remove 1 trillion tons of carbon dioxide from the atmosphere and use it to enrich our agricultural soils

#### In April, carbon dioxide levels hit a 14 million year high



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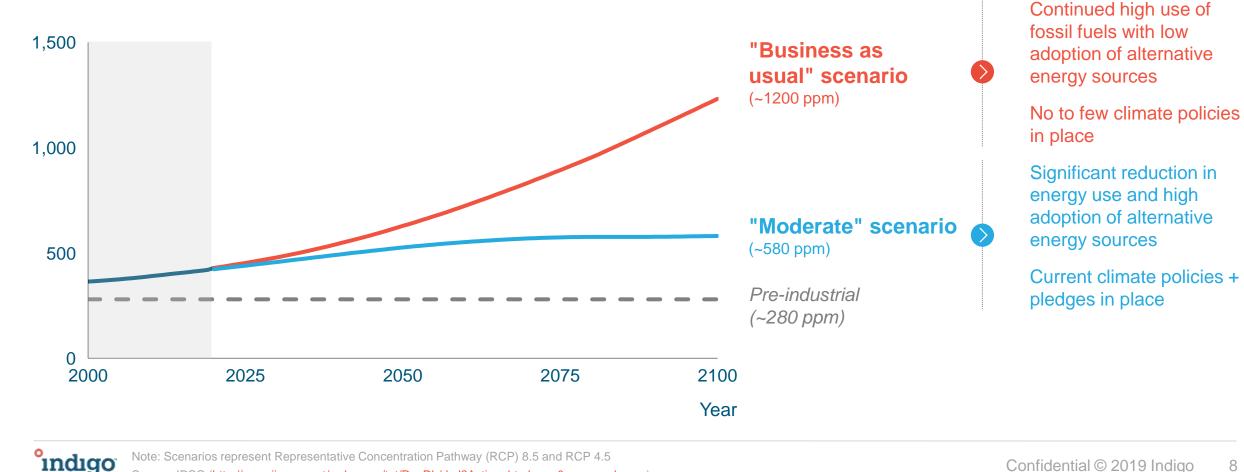
Source: Bereiter. National Centers for Environmental Information. 2015; World Economic Forum; IPCC; Representative Concentration Pathway scenarios 8.5 and 4.5 <u>http://www.iiasa.ac.at/web-apps/tnt/RcpDb/dsd?Action=htmlpage&page=welcome</u>

### Carbon dioxide has been released from plants, soil, and fossil fuels into our oceans and atmosphere

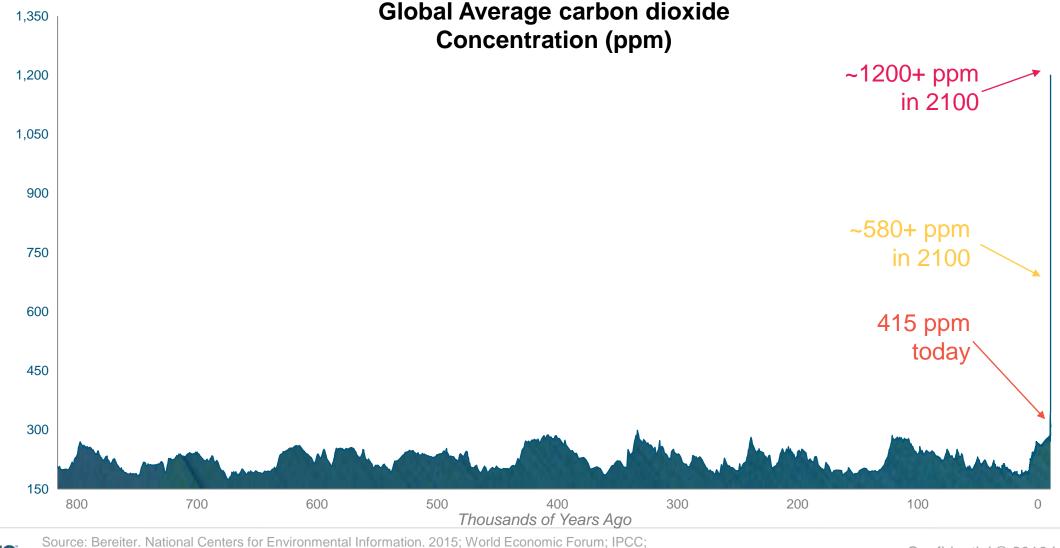


#### Reducing emissions alone will not address this problem

Historical and Forecast to 2100: Global atmospheric CO<sub>2</sub>e concentrations (historical & forecast parts per million)



### When viewed in the context of the last million years, these would be extraordinarily high levels



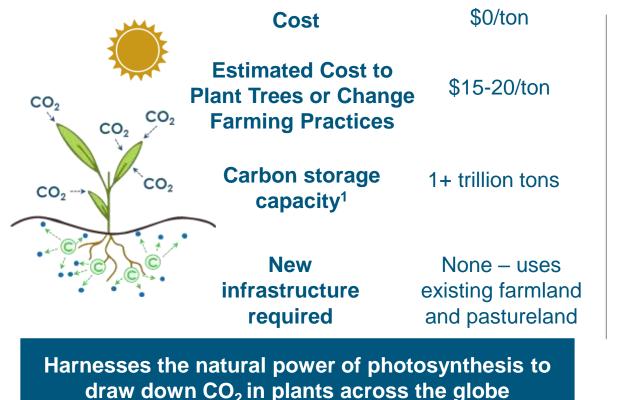
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Representative Concentration Pathway scenarios 8.5 and 4.5 http://www.iiasa.ac.at/web-apps/tnt/RcpDb/dsd?Action=htmlpage&page=welcome

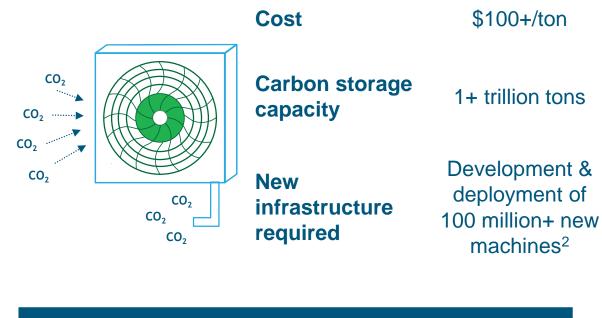
In addition to emissions reductions, we must also find ways of removing carbon from the atmosphere

### The only affordable, scalable, immediate process for drawdown is photosynthesis

#### Photosynthesis



#### **Direct Air Capture**



Would also require new sources of energy and locations to store CO<sub>2</sub>

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1. 1 trillion tons of capacity from 3.6B acres of farmland; likely significant additional capacity from pastureland
 2. <u>https://www.vox.com/energy-and-environment/2018/10/24/18001538/climate-change-co2-removal-negative-emissions-cdr-carbon-dioxide</u>, assumes each machine captures ~1 ton/day

Scalable	Affordable	Immediate
Agriculture		
Trees		
Oceans		



Legend 🗸 High — Medium 🗙 Low







Legend 🗸 High — Medium 🗙 Low

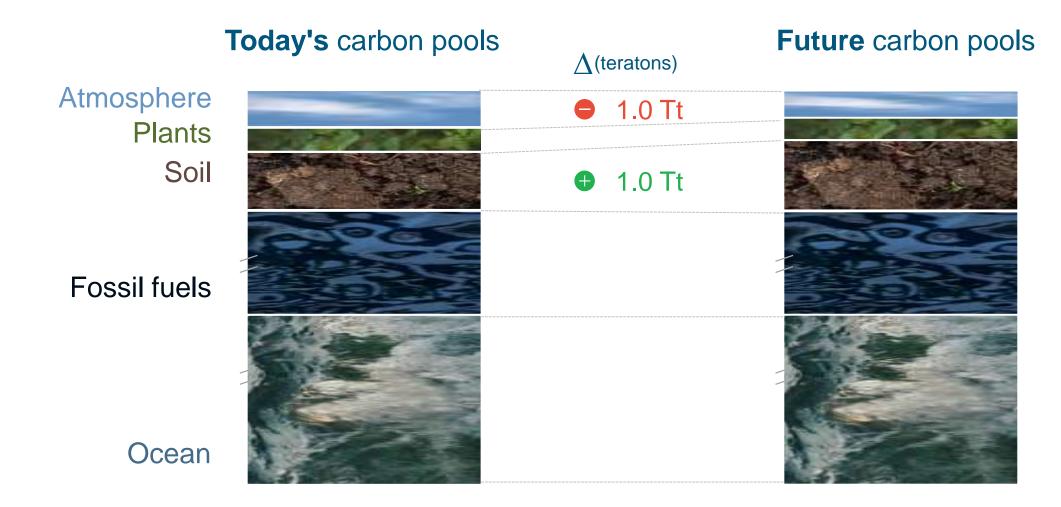
	Scalable		Affordable		Immediate	
Agriculture	$\checkmark$	Potential for 1+ trillion tons of $CO_2$	$\checkmark$	\$15-20 / ton CO <sub>2</sub> stored, with increased farmer profitability	$\checkmark$	Farmer control of land Means to make change System to harness collective efforts
Trees	~	Potential for ~700 billion tons of $CO_2$		\$15-20 / ton CO <sub>2</sub> stored, unknown opportunity cost		76% of forest land not controlled by individuals No system to harness collective effort today
Oceans	<	Potential for 1+ trillion tons of $CO_2$		Largely untested; still high cost today	X	No scalable and affordable solution yet developed

We should pursue carbon storage by both trees and agriculture, but agriculture is more scalable, more affordable, and more immediate

**Source:** <u>https://ensia.com/features/sequestration/;</u> Whiteman, Wickramasinghe, and Pina (2015) <u>https://doi.org/10.1016/j.foreco.2015.04.011</u>

Legend 🗸 High — Medium 🗙 Low

### Our goal is to shift 1 trillion tons of atmospheric carbon dioxide into agricultural soils



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#### How do farmers sequester carbon?



#### These 5 practices are proven to develop carbon enriched soils ....



Plant cover crops



Use no-till farming



Rotate crops

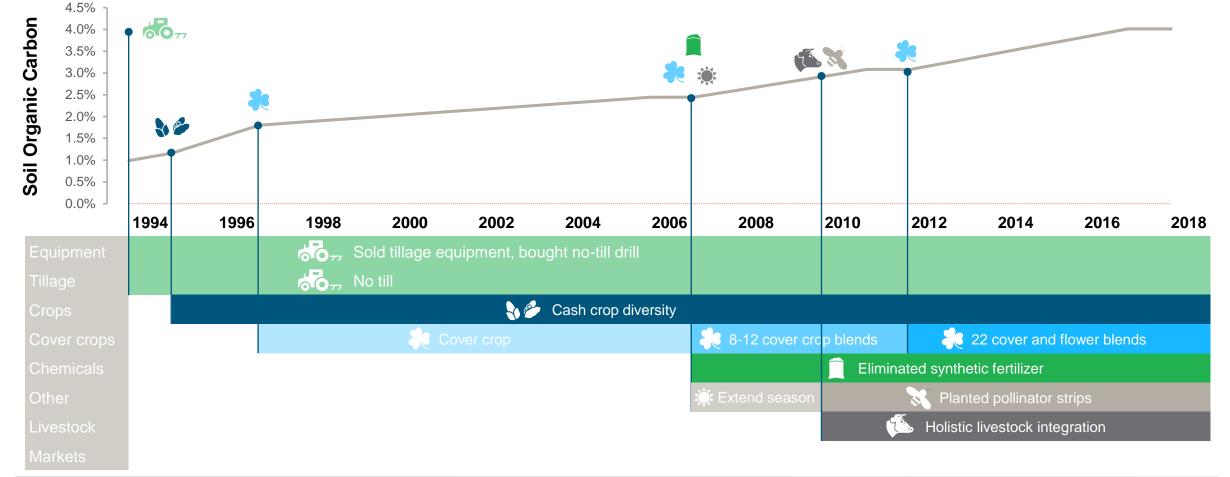
**Reduce inputs** 



Incorporate livestock

### ...And there are farmers who have already restored their soils to pre-cultivation soil carbon levels







Improved Drought Tolerance

#### Better Flood Resistance

**More Nutritious Crops** 

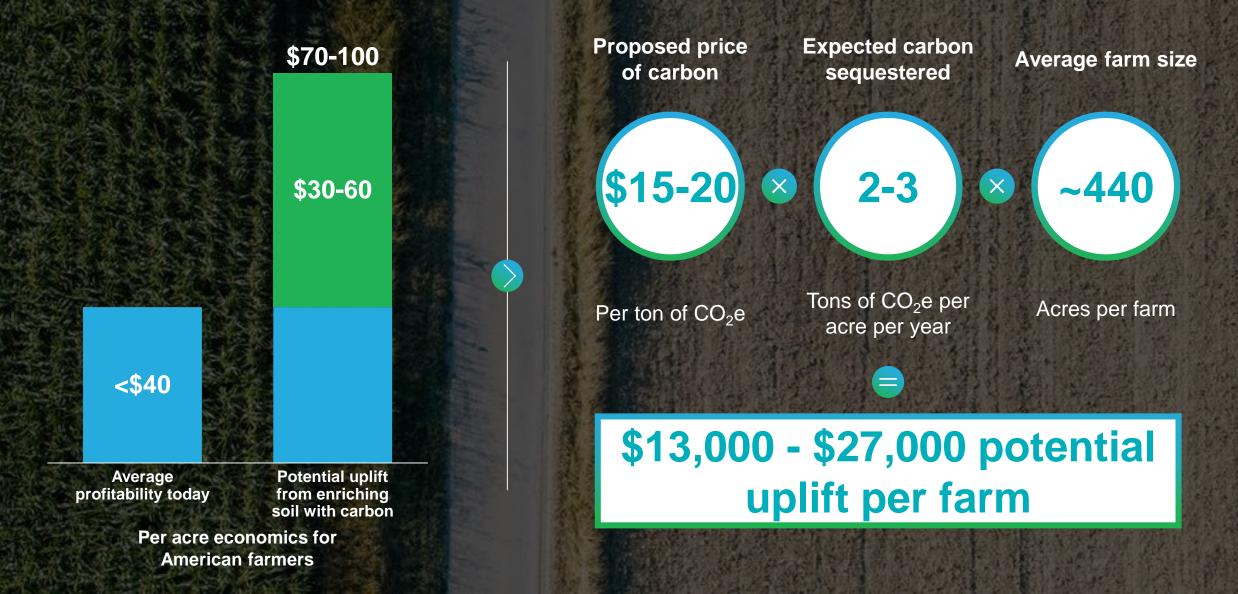


#### **Enhanced Yields**

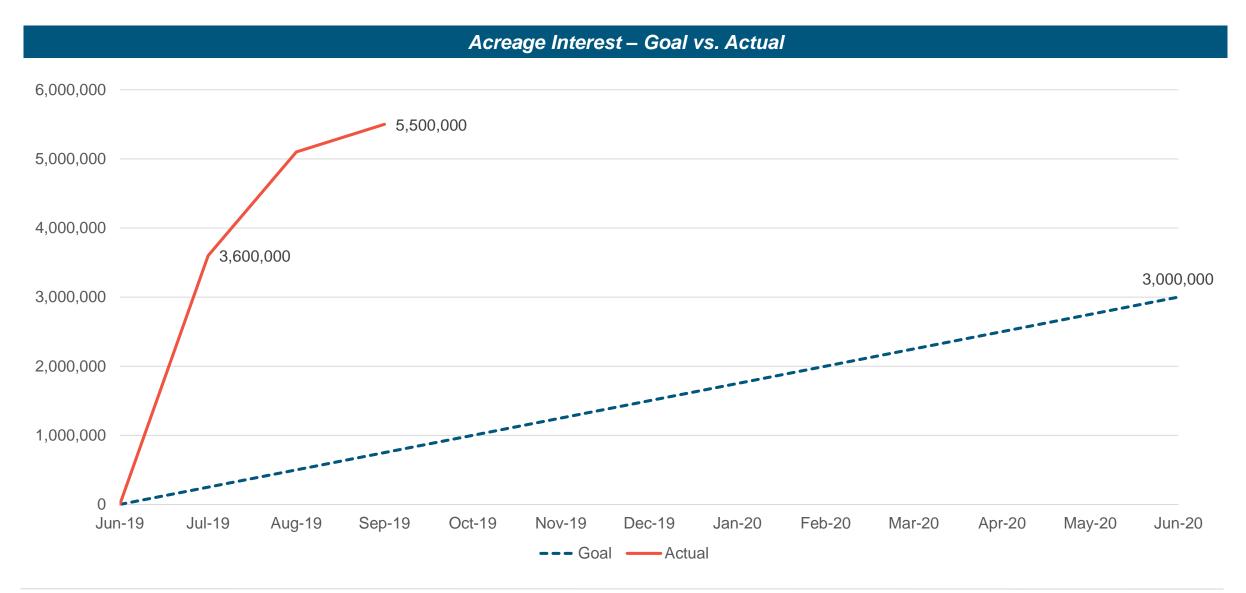
Decreased Inputs Required

There are also other important benefits to soil that contains more carbon

### **\$15 - \$20 per ton of carbon dioxide would be transformative for a farmer's economics**



#### Initial interest is significantly outpacing our projections



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### We plan to generate demand for carbon credits from four key stakeholders



Consumers

- Direct purchase of carbon credits
- Terraton Certification
- Issuing a credit card
- App that tracks carbon footprint



**Businesses** 

- Terraton Certification
- Direct offset of products or corporate footprint
- Option to offset carbon footprint at purchase



Not for profits

 Donations to the most effective near term climate change solutions



Governments

- Regulations to support carbon markets
- Cap and trade
  program
- Carbon tax

# If the Terraton Initiative achieves its promise, we believe it is possible to:

Enrich agricultural soils with 1 trillion tons of atmospheric carbon dioxide

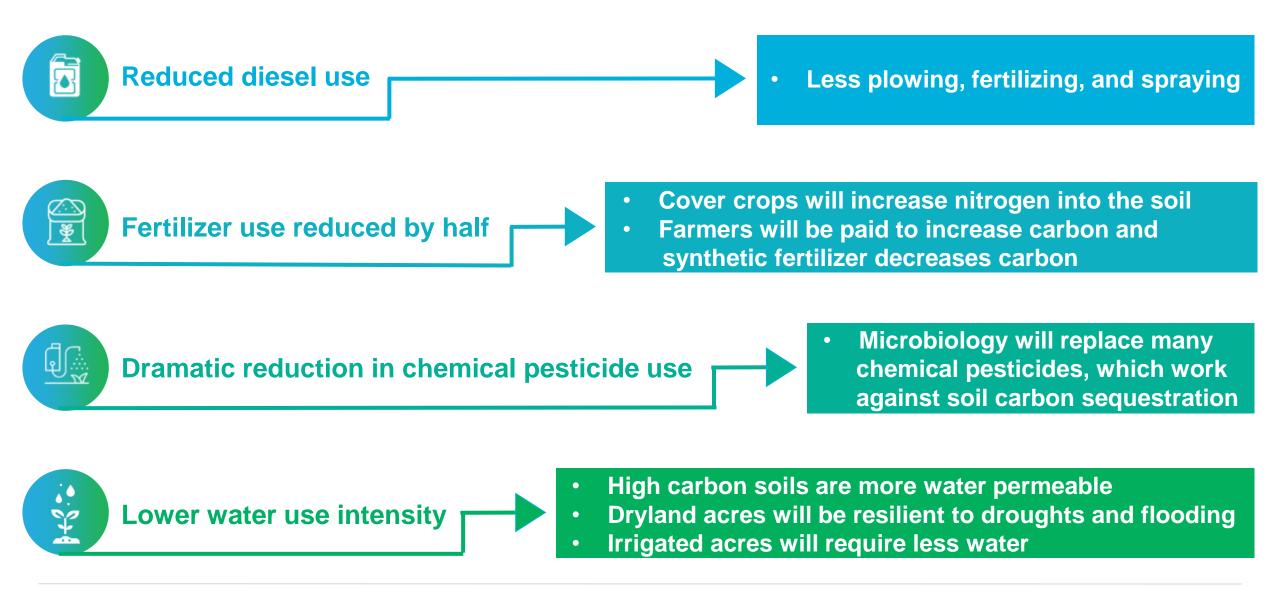
Dramatically **improve profitability of farmers** and health of rural communities by providing an additional stream of revenue and reducing their expenses

Make **farms more resilient** to extreme weather by increasing water permeability of soils and water holding capacity to weather floods and droughts



**Improve the nutrition** of crops by improving the health of the soil

#### A focus on carbon sequestration will change farming practices



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### Indigo could enable the manufacturing of lower carbon intensity biofuels at scale



Indigo will **measure** how much **carbon** is **sequestered** in the soil and how much carbon is **emitted** during the production of a crop

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Indigo Transport enables **traceability** from a farm to the delivery point

Therefore, it is possible to **calculate the carbon intensity** of the feed stocks for any given biofuel which could result in much **lower carbon intensity for biofuels**, perhaps even **carbon positive biofuels** 

#### What are the implications of this?

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