

Incentivizing conservation adoption through food quality marketplaces

USDA Conservation Innovation Grant 2022 – 2024
Christi Electric
Croatan Institute

Conservation Finance Roundtable
April 25, 2024

PROJECT OVERVIEW

Title: Incentivizing Conservation Adoption through Food Quality Marketplaces

Total project amount: \$2.0+ million

- \$690,280 (Federal)
- \$1,318,713+ (Non-federal match)

Objectives

- 1) Identify attributes of conservation, food quality, and socio-economic characteristics of farms** that can be associated with agricultural food products in the marketplace
- 2) Help facilitate, learn from, and give recommendations on market transactions** that reflect the nutritional, environmental, and social benefits of regeneratively-grown farm products, leveraging innovative data
- 3) Attract traditional finance to conservation-oriented agriculture operations and products,** across asset classes

CIG PROJECT PARTNERS



CROATAN
INSTITUTE

Nourishⁿ



BIONUTRIENT
FOOD ASSOCIATION



Agriculture Capital



USDA  NRCS
U.S. Department of Agriculture
Natural Resources Conservation Service

ADDITIONAL STAKEHOLDERS

BeeODiversity

Mad Agriculture

Turquoise Mountain Farms

Individual Farm Participants

Activating the Economics

6 On-Farm Determinants of Food Quality

Initial seed/plant/animal selection



Soil health
(biological/chemical/physical;
microbes & fungi, organic matter)



Ecosystem interdependence around
the farm



Plant or animal management practices



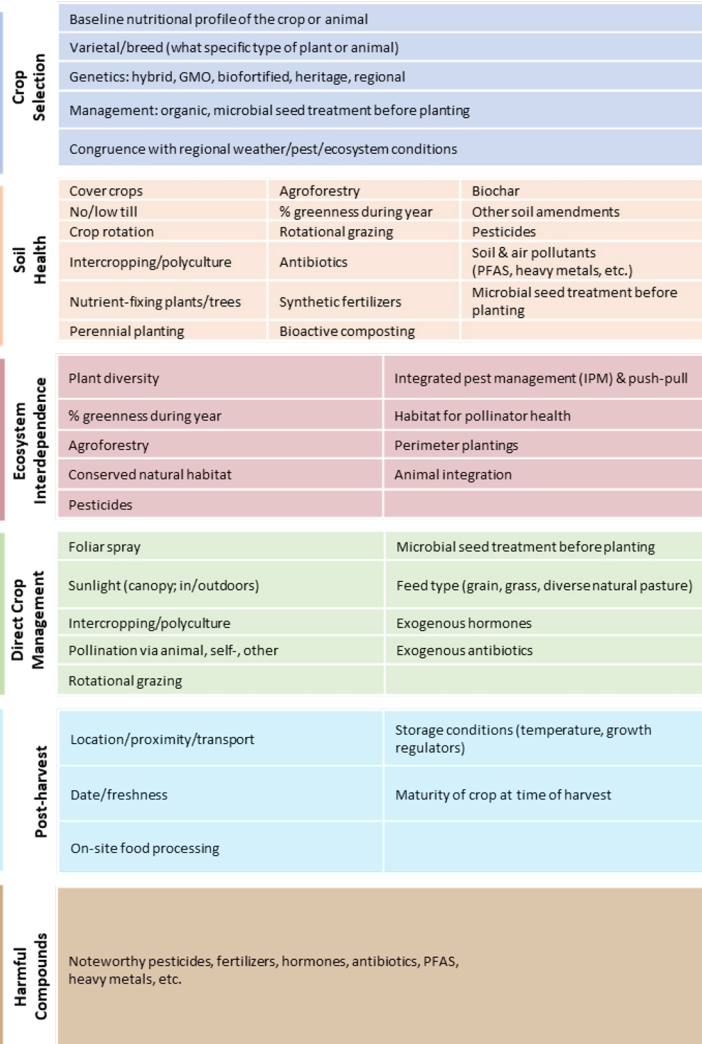
Post-harvest crop management



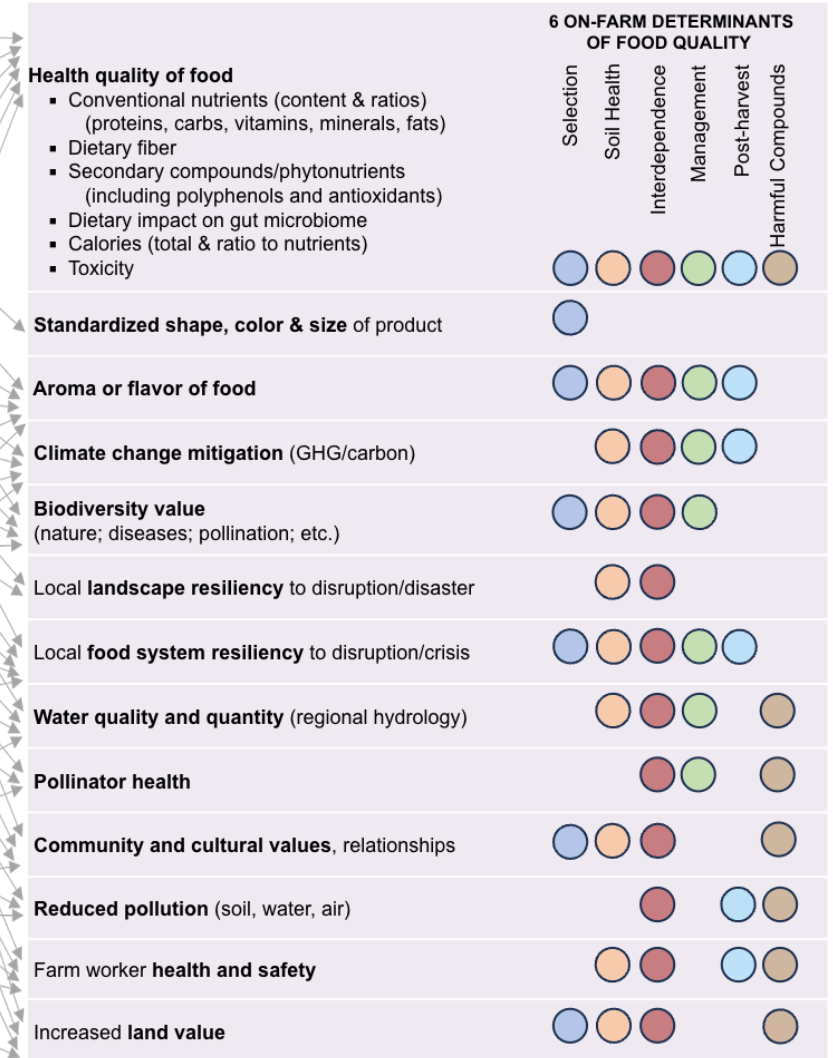
Compounds that can be harmful to
humans

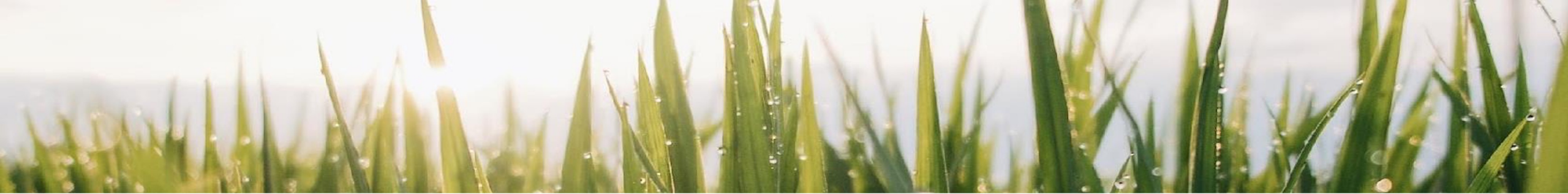


Detailed Farm Practices



Value Propositions





Innovative Data Generation

- **Bionutrient Food Association** Metabolomics
 - Nutrient density
 - Nutrient variation

Total phytochemicals are the sum of all measured phytochemicals (n=3 per group).

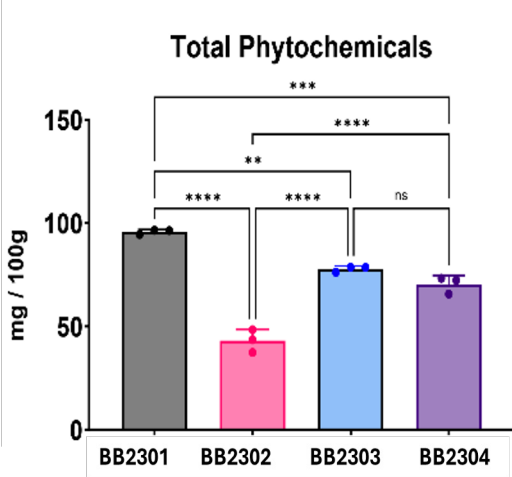
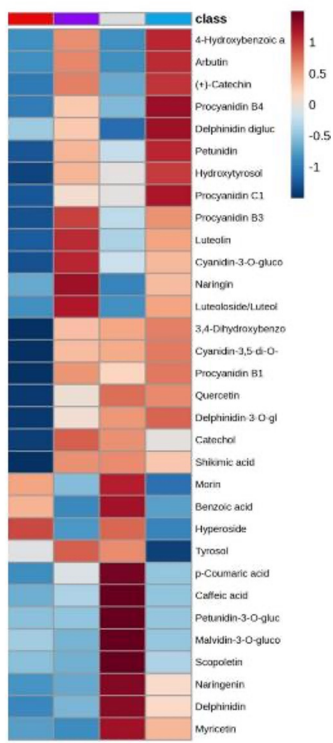
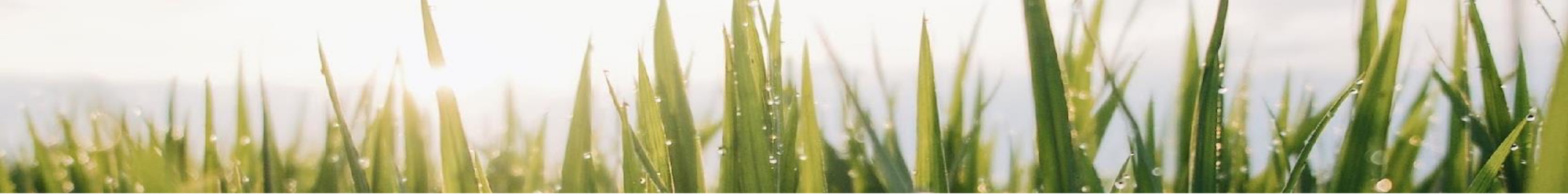


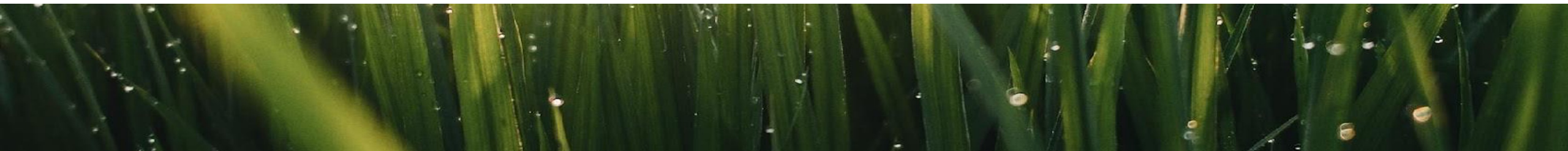
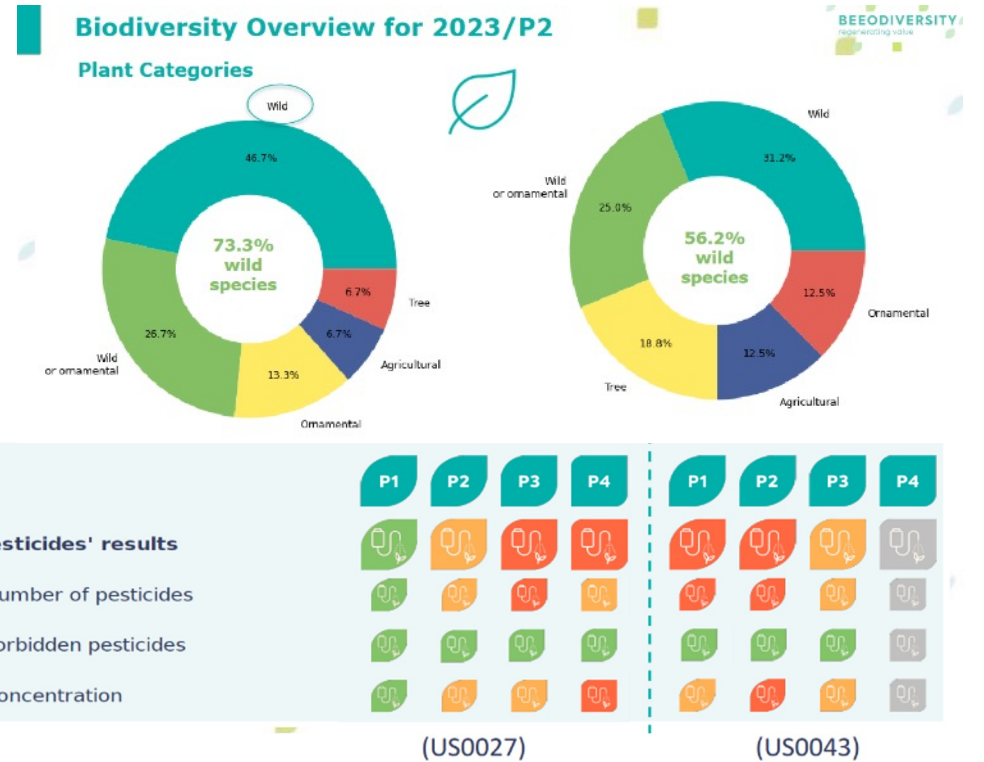
Figure 2. Heatmap of compounds.





Innovative Data Generation

- **Bionutrient Food Association** Metabolomics
Nutrient density
Nutrient variation
- **BeeOdiversity** BeeOmonitoring
Biodiversity measurement tool (Vegetal Variety)
Pollution measurement tool (Pesticide and Heavy Metals)
Pollen Nutritional Value (Pollinator Health)

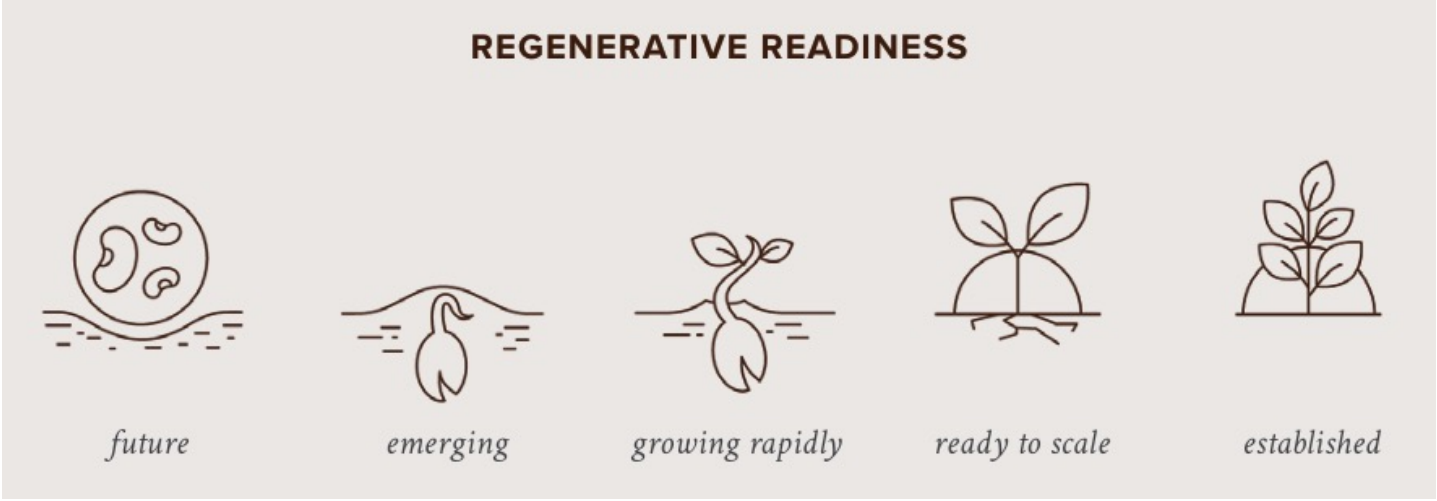
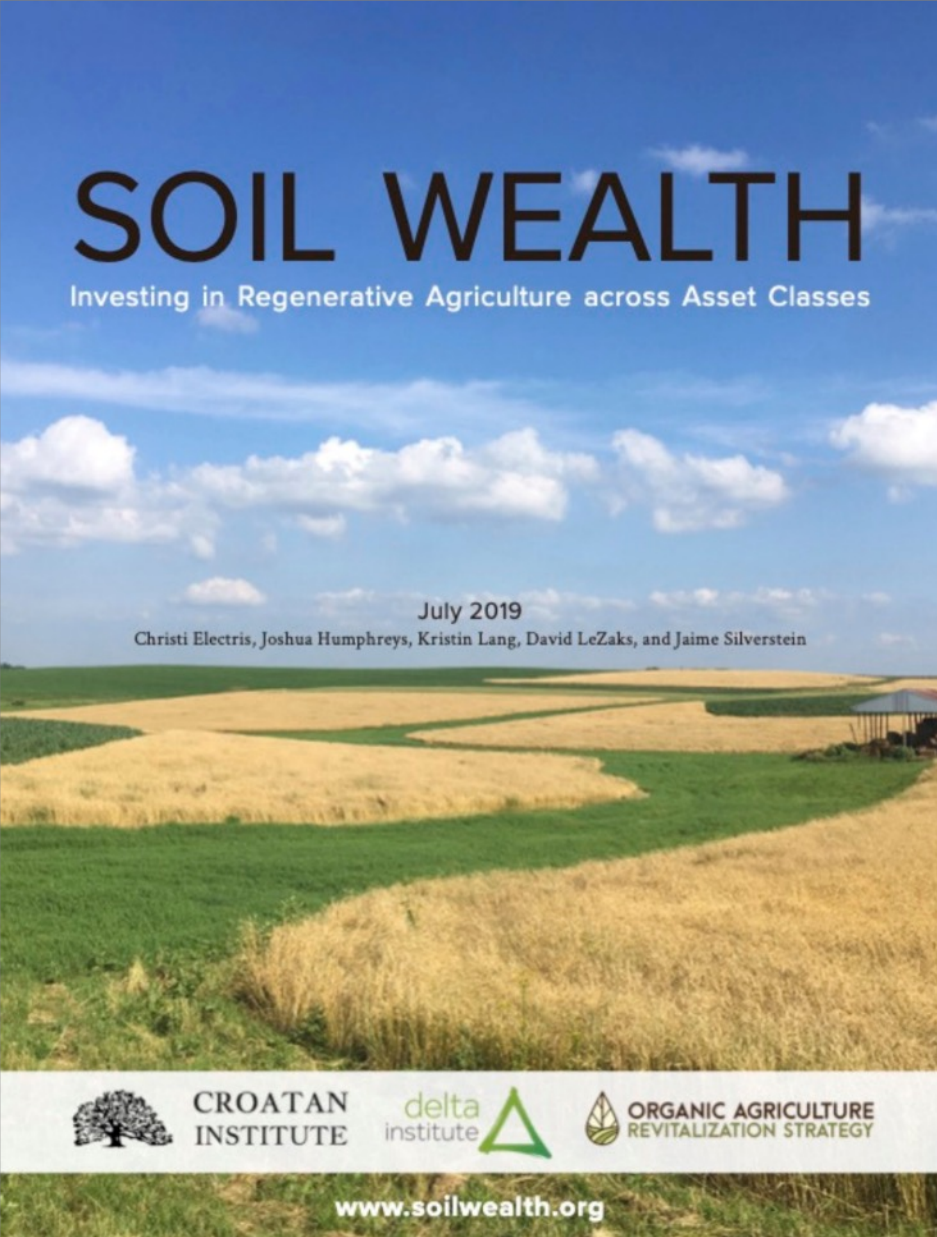


Innovative Data Generation

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Pollen Nutritional Value (Pollinator Health)
- **Merge Impact** Dashboard
Connects sustainability and food quality data to support practices and markets



Innovative Financial Mechanisms



215 Products – Food & Ag (filtered)

Products Firms

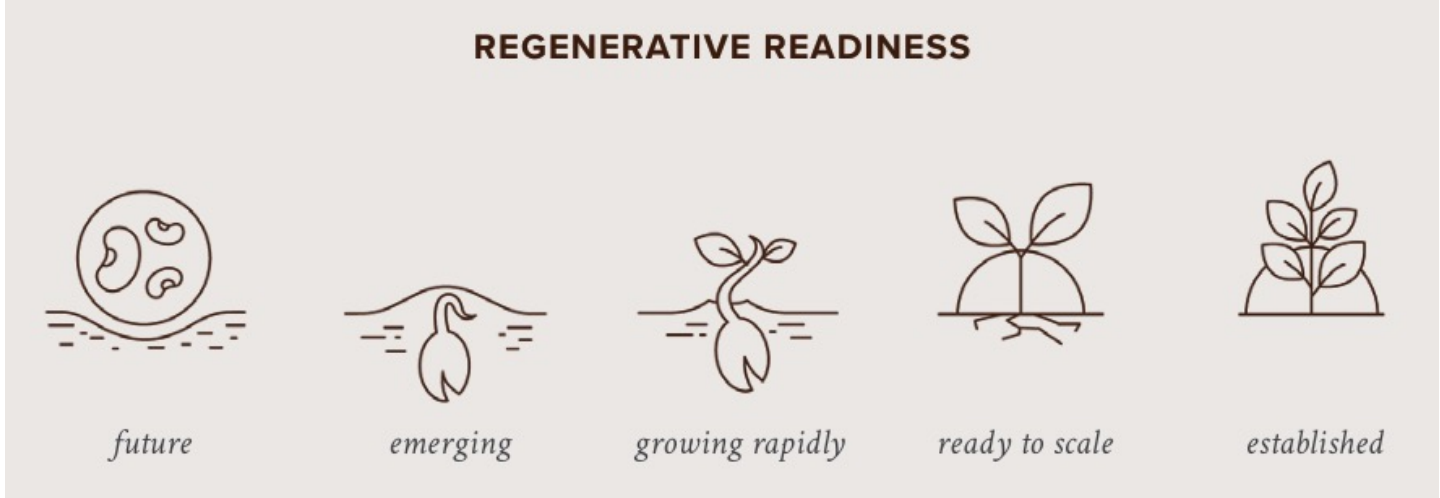
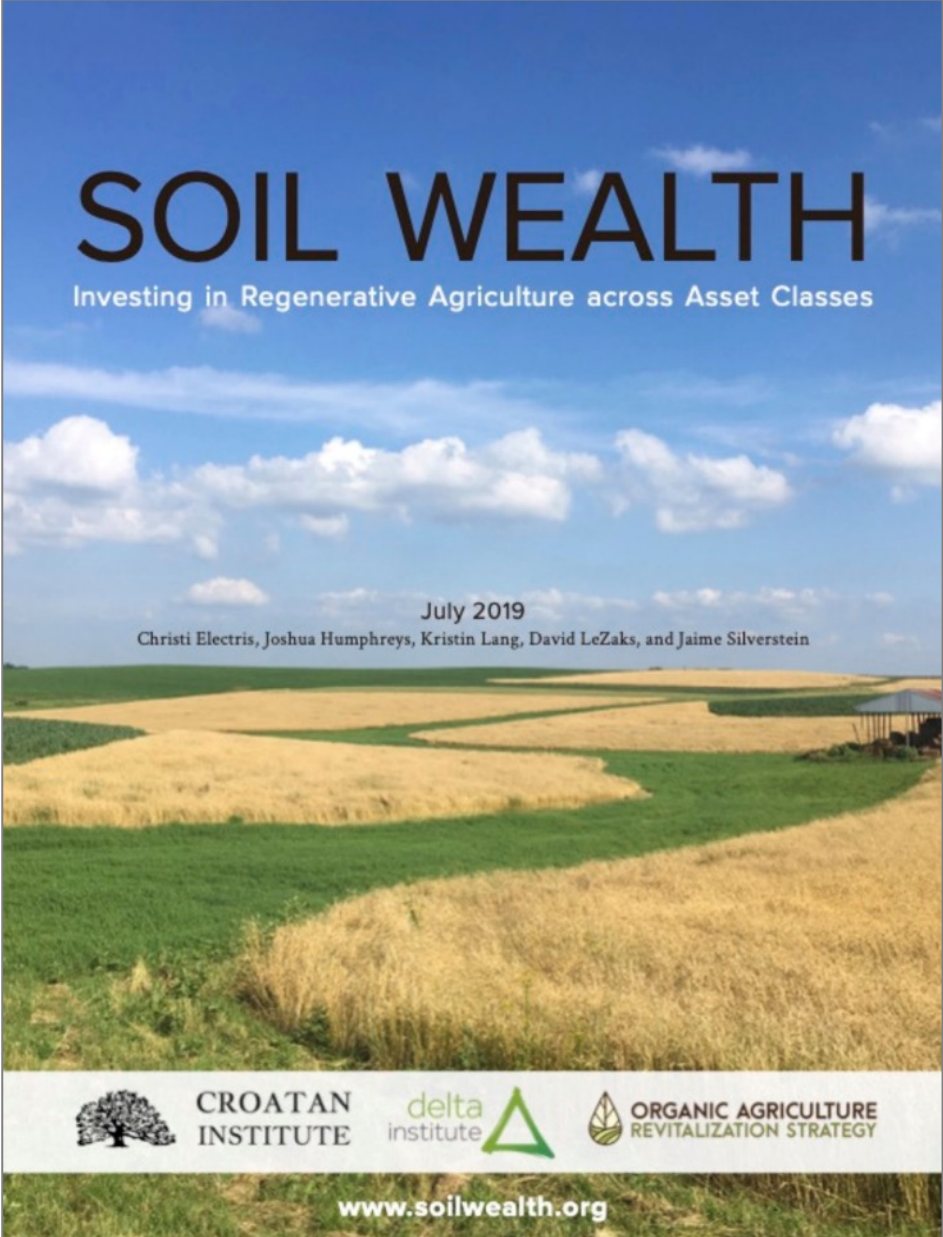
Asset Class	Product	Firm	Asset Class	Investment Theme
<input type="checkbox"/> Cash & Equivalents	Orange Nature Fund	Mirova Althelia Fund	Real assets	✓ Soil Wealth
<input type="checkbox"/> Fixed income	Philanthropic Notes	Black Farmer Fund	Private Debt	✓ Soil Wealth
<input type="checkbox"/> Private Debt	Pioneer Valley Grows Investment Fund (PVGIF)	Pioneer Valley Grows	Private Debt	✓ Soil Wealth
<input type="checkbox"/> Public Equity	Proterra Asia Fund 3	Proterra Investment Partners	Real assets	✓ Soil Wealth
<input type="checkbox"/> Private Equity/VC	Proterra FF2 Fengji Co-Investment Fund	Proterra Investment Partners	Private Equity/VC	✓ Soil Wealth
<input type="checkbox"/> Real assets	RSF Food System Transformation Fund	RSF Social Finance	Private Debt	✓ Soil Wealth
	RSF Social Investment Fund	RSF Social Finance	Private Debt	✓ Soil Wealth
	Real Estate and Land Loans	Mad Capital	Private Debt	✓ Soil Wealth
	Redwood Agri Fund	AMERRA Capital	Private Equity/VC	✓ Soil Wealth

Food & Ag Filters

✓ Soil Wealth

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Innovative Financial Mechanisms



Mechanism	Cash	Fixed Income / Public Debt	Private Debt	Public Equity	Private Equity/ VC	Real Assets
Certificates of Deposit at local depository institutions	X					
Real estate investment trust (REIT)						X
Land-secured assessment financing		X				
Diversified Community Investment Fund					X	
Direct Public Offering					X	
Loan Guarantee Pool			X			

Thank you!

Questions or reactions?

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USDA CIG: NR223A750013G017