

# GRANT BACKGROUND

## NATIONAL RESOURCE CONSERVATION SERVICE (NRCS) CONSERVATION INNOVATION GRANT (CIG)

- Falls under the **Soil Health Demonstration** component of the **On-Farm Trials**
- These are projects that feature collaboration between NRCS and partners (typically farmers) to implement on-the-ground conservation activities and evaluate their impact, specifically the implementation of conservation practices and systems that improve soil health.
- **Award Title:** Managing Pasture for Healthy Farms and Soils Across Vermont
- **Award:** 2.64 Million grant; 1 Million goes to farmer payments
- **Award Duration:** Five Years, Jan. 2021 to December 2025



# PARTNERS



## VERMONT LAND TRUST

(PROJECT COORDINATION BETWEEN ALL PROJECT PARTNERS AND PARTICIPATING PRODUCERS)

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## BIO-LOGICAL CAPITAL

(PROJECT MANAGEMENT AND OVERSIGHT, RESEARCH AND DATA COLLECTION)

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## UNIVERSITY OF VERMONT

**DEPARTMENTS OF:** PLANT & SOIL SCIENCES, COMMUNITY DEVELOPMENT AND APPLIED ECONOMICS, INTERDISCIPLINARY GRADUATE PROGRAM IN FOOD SYSTEMS  
(ECOLOGICAL, ECONOMIC, AND SOCIAL RESEARCH AND DATA COLLECTION)

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## THE UNIVERSITY OF VERMONT EXTENSION CENTER FOR SUSTAINABLE AGRICULTURE

(TECHNICAL ASSISTANCE, FARM PLANNING, DATA GATHERING)



# WHAT ARE WE DOING? FOUR-PART SOIL HEALTH MANAGEMENT SYSTEM (SHMS)

## 1. NO-TILL SEEDING OF FORAGE AND COVER CROPS

- NO-TILL
- LIMITED TILL
- COVER CROPS

## 2. NUTRIENT MANAGEMENT

- APPLICATION OF COMPOST
- APPLICATION OF BIOAVAILABLE NUTRIENT AMENDMENTS

## 3. NON-INVASIVE MECHANICAL PASTURE IMPROVEMENT

- KEYLINE PLOWING
- SUBSOILING

## 4. MANAGEMENT INTENSIVE ROTATIONAL GRAZING (MIRG) FOR IMPROVED LIVESTOCK PRODUCTION

- BEEF, DAIRY, AND OTHER SMALL RUMINANTS



# GOALS

## THERE ARE FOUR MAIN GOALS OR OBJECTIVES

1. MEASURE THE IMPACT OF THESE SOIL HEALTH MANAGEMENT PRACTICES ON SOIL AND ECOSYSTEM HEALTH
2. CALCULATE FINANCIAL COST AND BENEFIT (INCREASED PRODUCTION, WEIGHT GAIN, QUALITY) FOR FARMERS OF ADOPTING THE PRACTICES
3. UNDERSTAND THE SOCIAL OUTCOMES OF ADPOTING THESE PRACTICES
4. USE DATA GATHERED TO PREDICT THE POTENTIAL OF IMPLEMENTING SIMILAR PRACTICES ACROSS VERMONT FARMLAND



# ELIGIBLE FARMS: FARM "TYPE"

## CONVENTIONAL MANAGEMENT

ROW CROP / HAY  
AG. PRODUCTION  
FOR CONVENTIONAL  
BEEF, DAIRY, & SMALL  
RUMINANTS



0%

ADOPTION OF SOIL HEALTH MANAGEMENT SYSTEMS

100%

## INTEGRATED MANAGEMENT

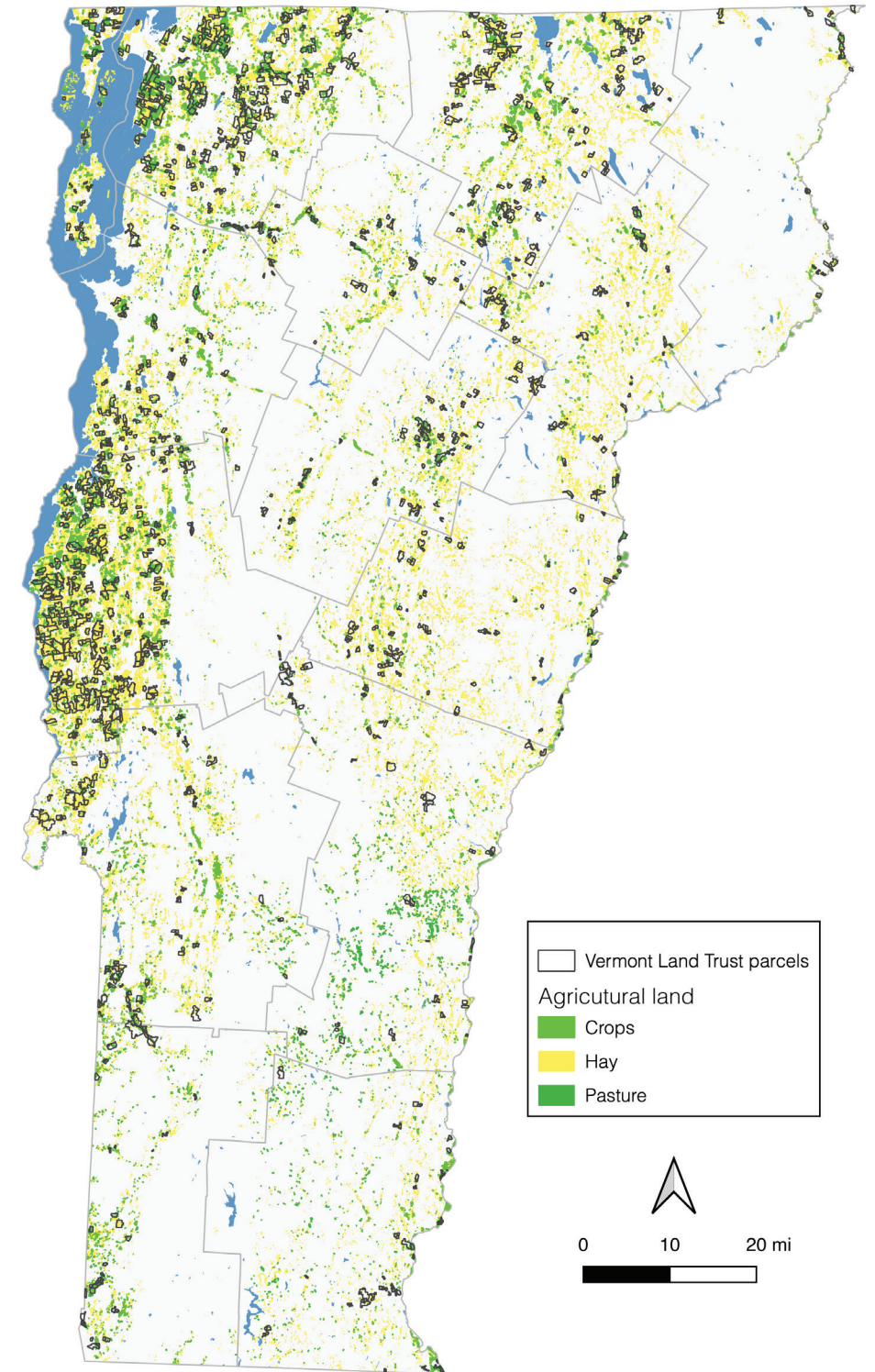
PASTURE  
MANAGEMENT WITH  
INTENSIVE ROTATIONAL  
GRAZING



20 FARMS

# ELIGIBLE FARMS: LOCATION

- FARMS ACROSS THE VERMONT LANDSCAPE
- FARMS DO NOT HAVE TO BE UNDER ANY SORT OF CONSERVATION EASEMENT (VERMONT LAND TRUST, UPPER VALLEY LAND TRUST, ETC.)





# RESEARCH OBJECTIVES & DATA COLLECTION

## ECOLOGICAL:

- PHYSICAL, CHEMICAL AND BIOLOGICAL SOIL SAMPLES
- PASTURE PRODUCTIVITY (YIELD AND QUALITY)
- SOIL WATER AND AGRICULTURAL RUNOFF
- ANIMAL HEALTH AND PERFORMANCE

## ECONOMIC:

- EVALUATE ECONOMIC OUTCOMES FOR EACH FARM (COSTS OF INPUTS, ON-GOING MANAGEMENT COSTS, AND CHANGES IN INCOME OVER TIME)
- PERFORM MARKET CHAIN ANALYSIS

## SOCIAL:

- INTERVIEWS WITH BROADER SET OF PRODUCERS AND OTHER KEY INFORMANTS
- CLOSED-FORM AND SHORT-ANSWER SURVEYS TO ASSESS MOTIVATIONS FOR FARMING, PERCEIVED SOIL HEALTH AND PASTURE PRODUCTIVITY, CHALLENGES AND OPPORTUNITIES





# PAYMENTS

- > OVER 1 MILLION DOLLARS SECURED TO PAY FARMERS FOR ADOPTING THESE PRACTICES
- > PAYMENT FOR DATA COLLECTION SUPPORT - \$1,200 PER YEAR (STARTING IN YEAR 1)
- > PAYMENT FOR PRACTICES - \$30-\$250 PER ACRE YEAR 1, AND \$30 - \$110 PER ACRE EACH YEAR THEREAFTER
- > ALL 4 SOIL HEALTH MANAGEMENT PRACTICES HAVE A SPECIFIC ASSOCIATED PAYMENT
- > PAYMENTS WILL ALSO BE DISTRIBUTED TO FARMERS ALREADY INCORPORATING ALL 4 PRACTICES IN RETURN FOR THEIR MENTORSHIP OF OTHER PARTICIPATING FARMERS IN THE PROGRAM



# ADDITIONAL CONSIDERATIONS

- DATA WILL BE SHARED OPENLY
- WORKING WITH A COHORT - MENTORSHIP
- PARTICIPATION FOR THE DURATION OF THE AWARD (FIVE YEARS)
- ENERGY AND EXCITEMENT



# ADDITIONAL INFORMATION

- FOR MORE INFORMATION PLEASE VISIT THE VERMONT LAND TRUST WEBSITE ([HTTPS://VLT.ORG/HEALTHY-SOIL](https://vlt.org/healthy-soil))