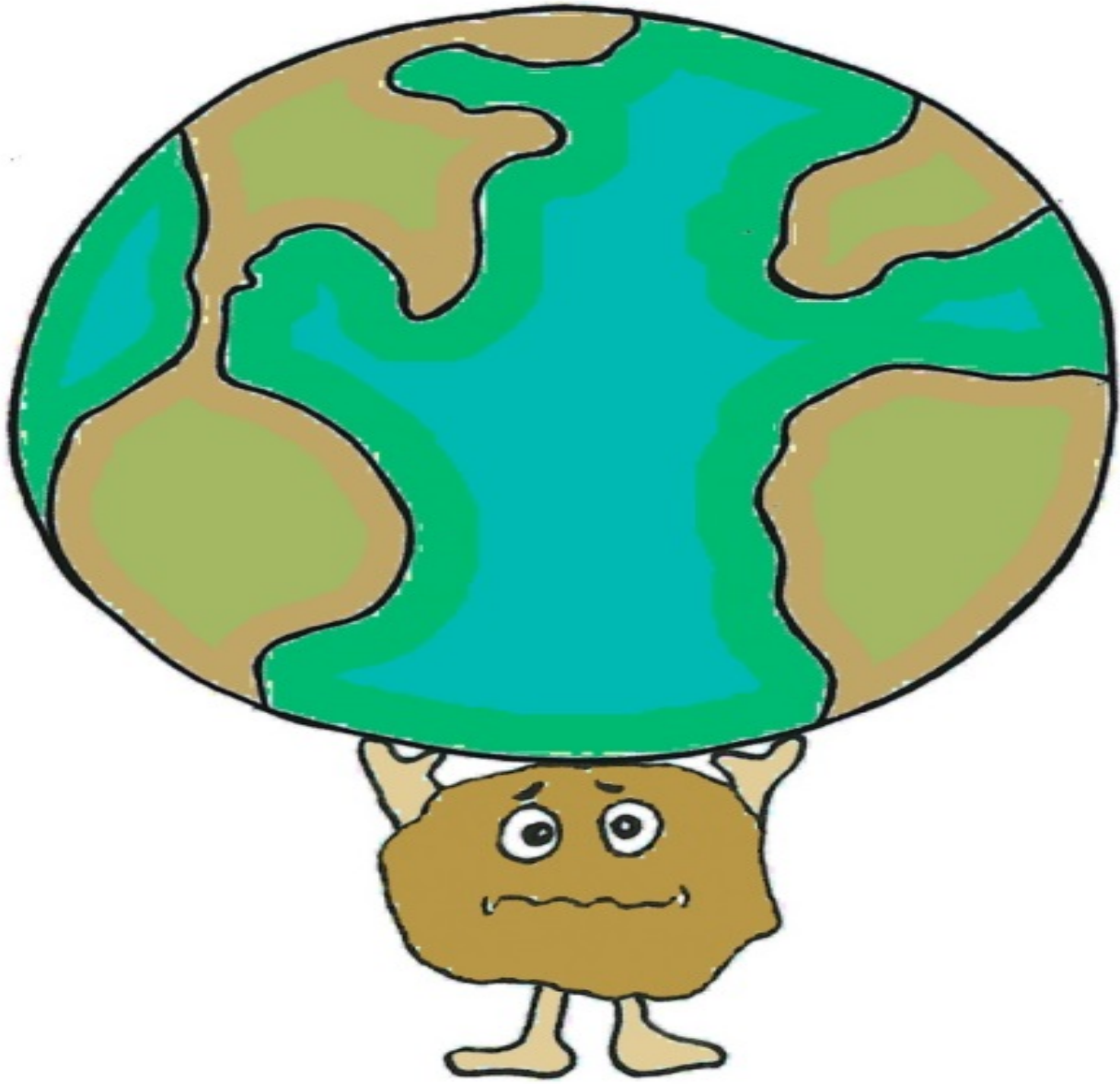




# Digging Deeper

## Strategies for Improving Soil Health in Far Northern Regions



# Why Don't We Change?

Farming Already  
Risky Enough.

If It Works Don't  
Change It.

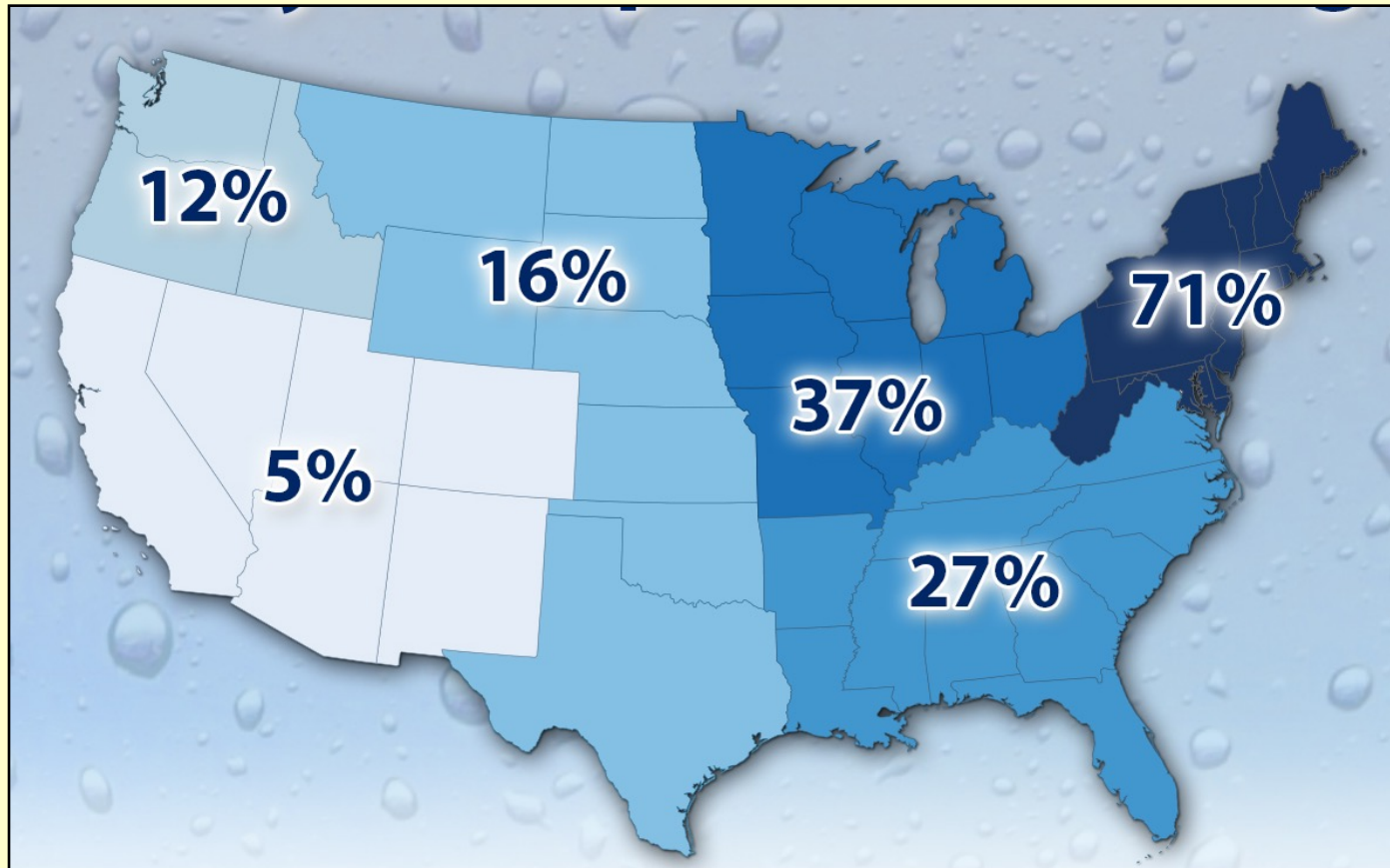
I Already Get Good  
Yields.



# What Happens When What Works Doesn't Work Anymore?



# Trends in Extreme Precipitation



Increase in the number of 2" rainfalls per year from 1958 to 2011



# Why We Change?



# What is the value of Your topsoil?

Why are YOU just giving it  
away?

# Sometimes We Need Encouragement

**CROP  
PEST**





# Legendary Tillage Radish

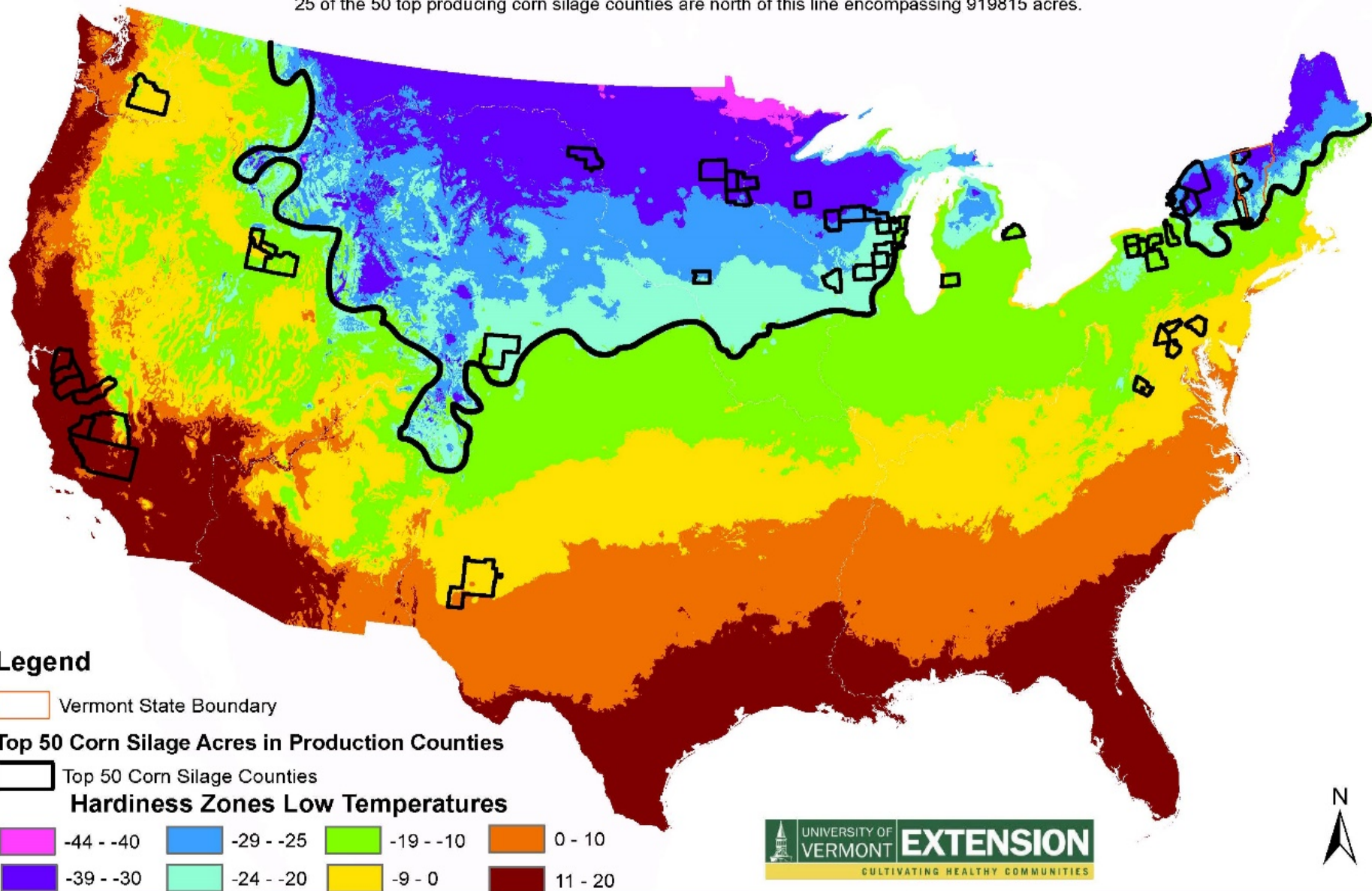


# What Can We Do?



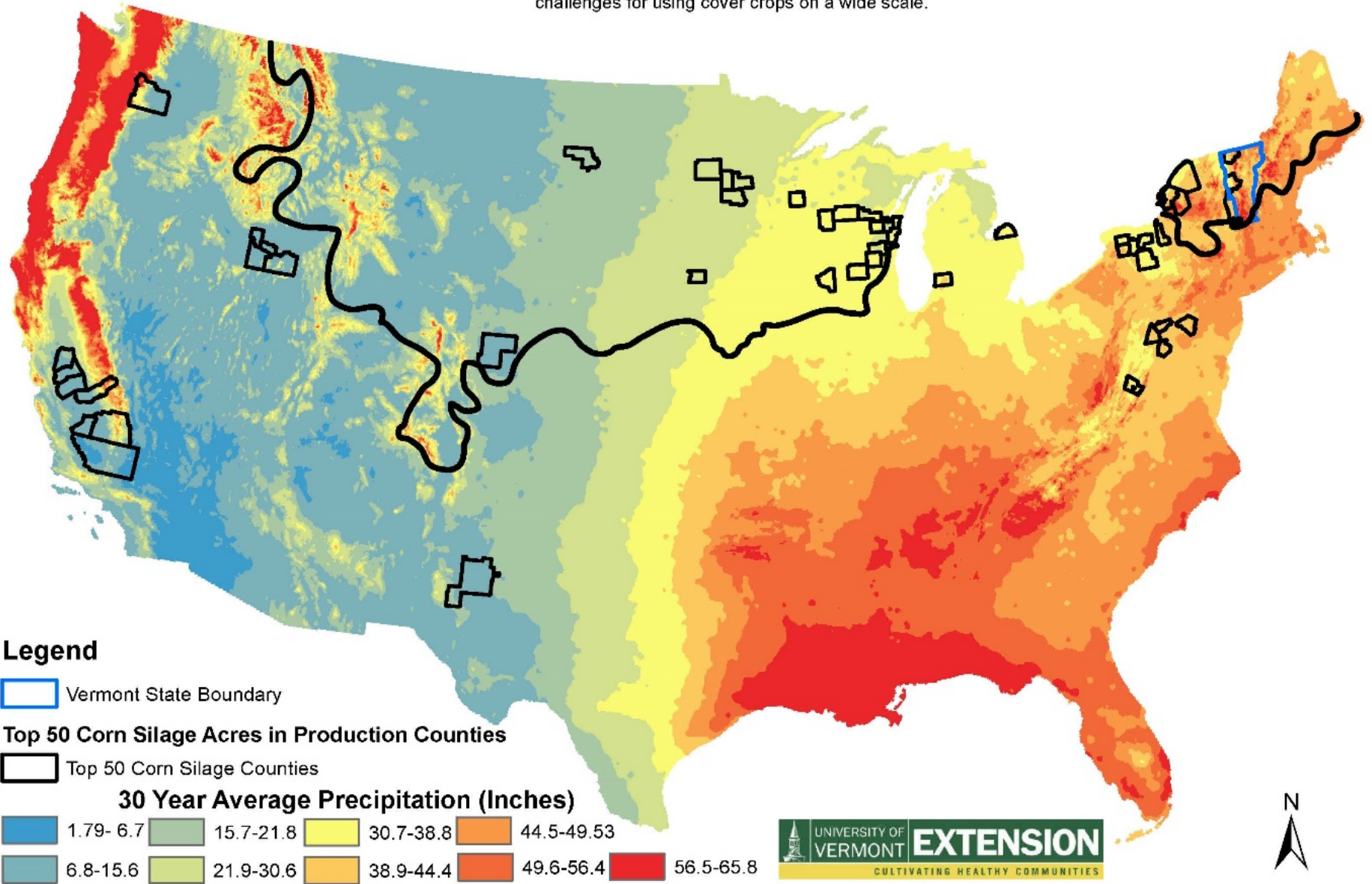
# 50 Top Corn Silage Growing Counties Winter Hardiness Zones

The black line indicates the area of the country with seasonally low temperatures similar to Vermont.  
The work proposed in this grant could be applied to areas north of this line.  
25 of the 50 top producing corn silage counties are north of this line encompassing 919815 acres.

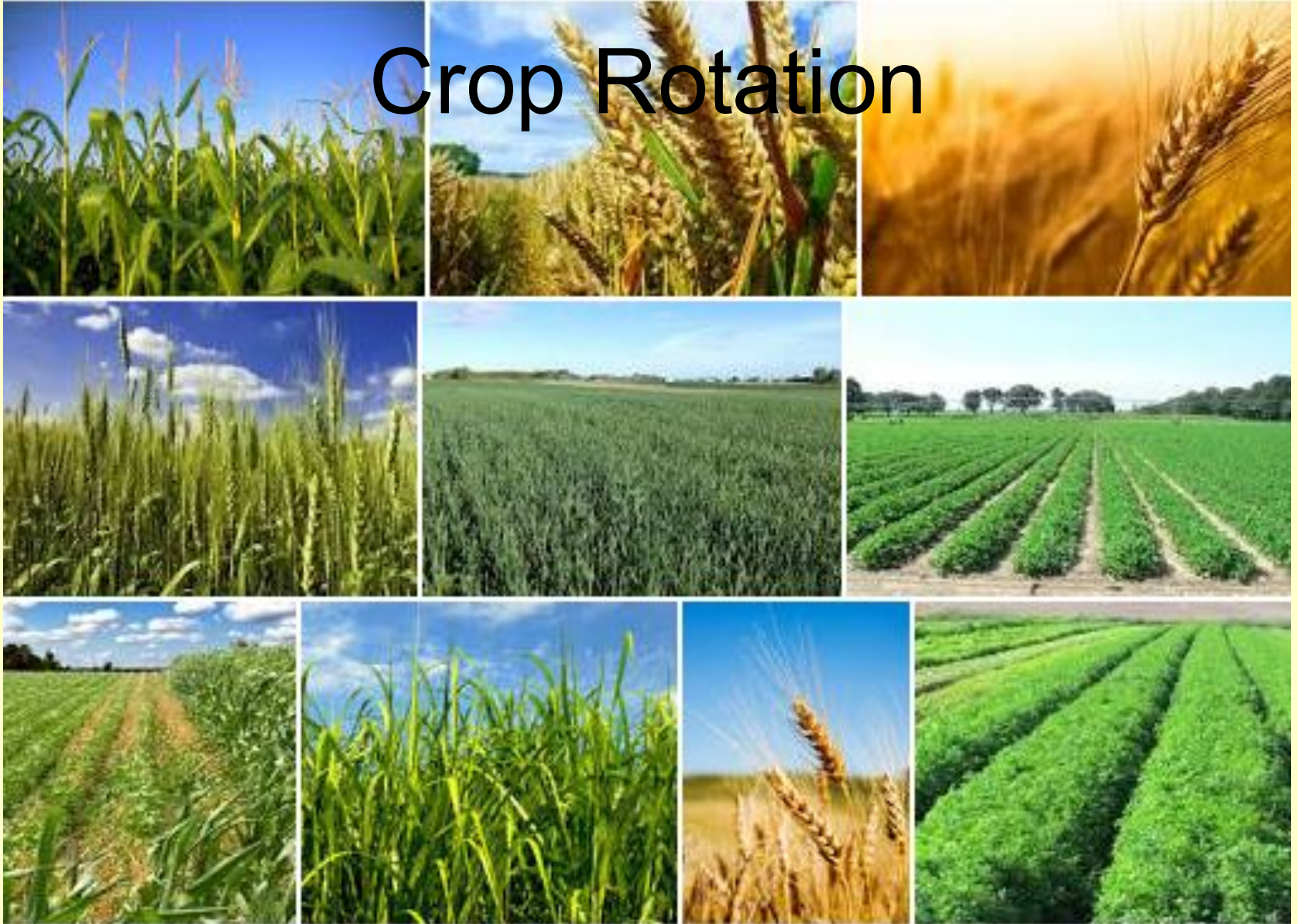


# 50 Top Corn Silage Growing Counties 30 Year Average Precipitation

The Black line indicates the area of the country with similar growing season to Vermont.  
This map indicates that In the Northeastern US there is more precipitation than other corn silage growing regions which creates challenges for using cover crops on a wide scale.

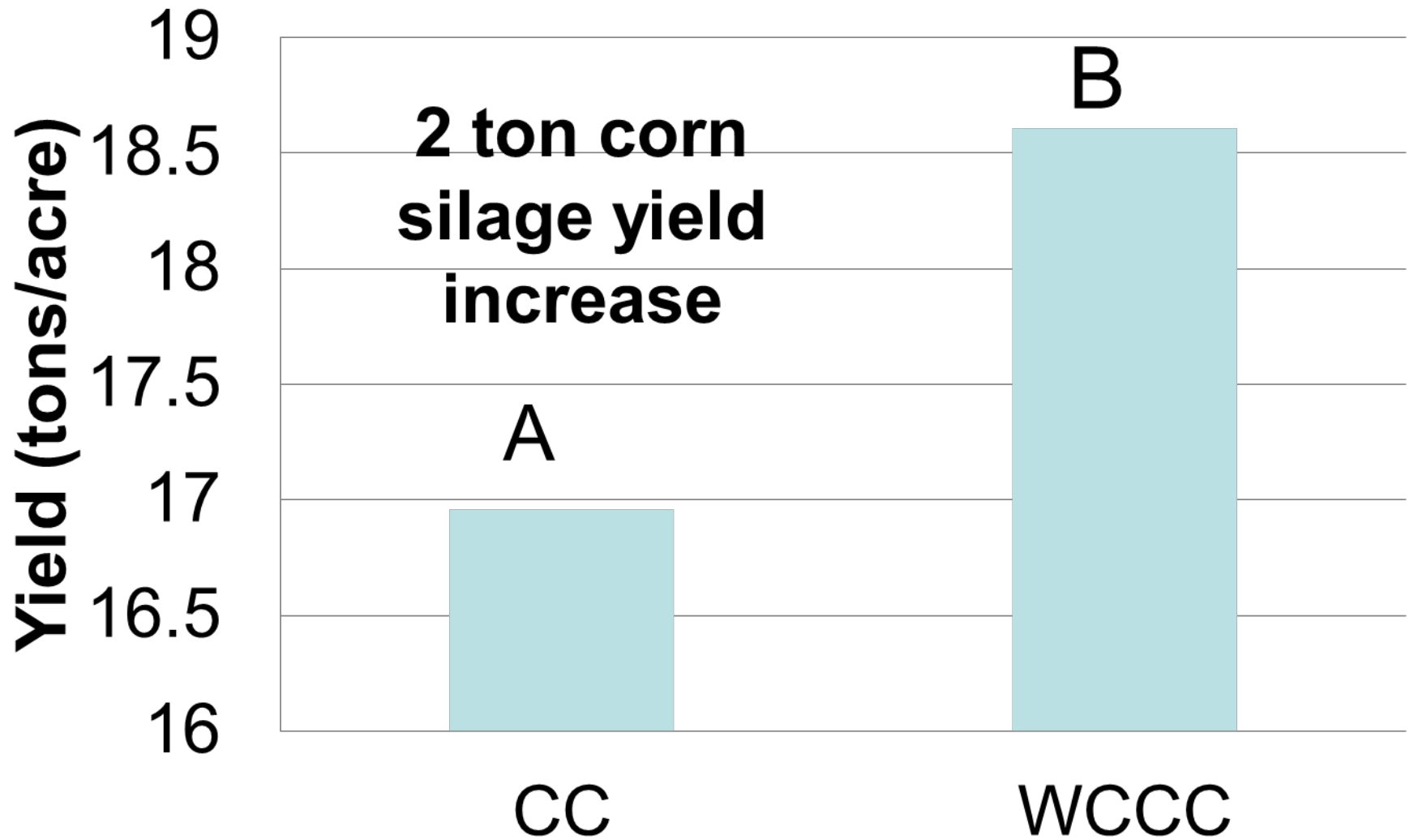


# Crop Rotation





# Corn Yields and Cover Crops



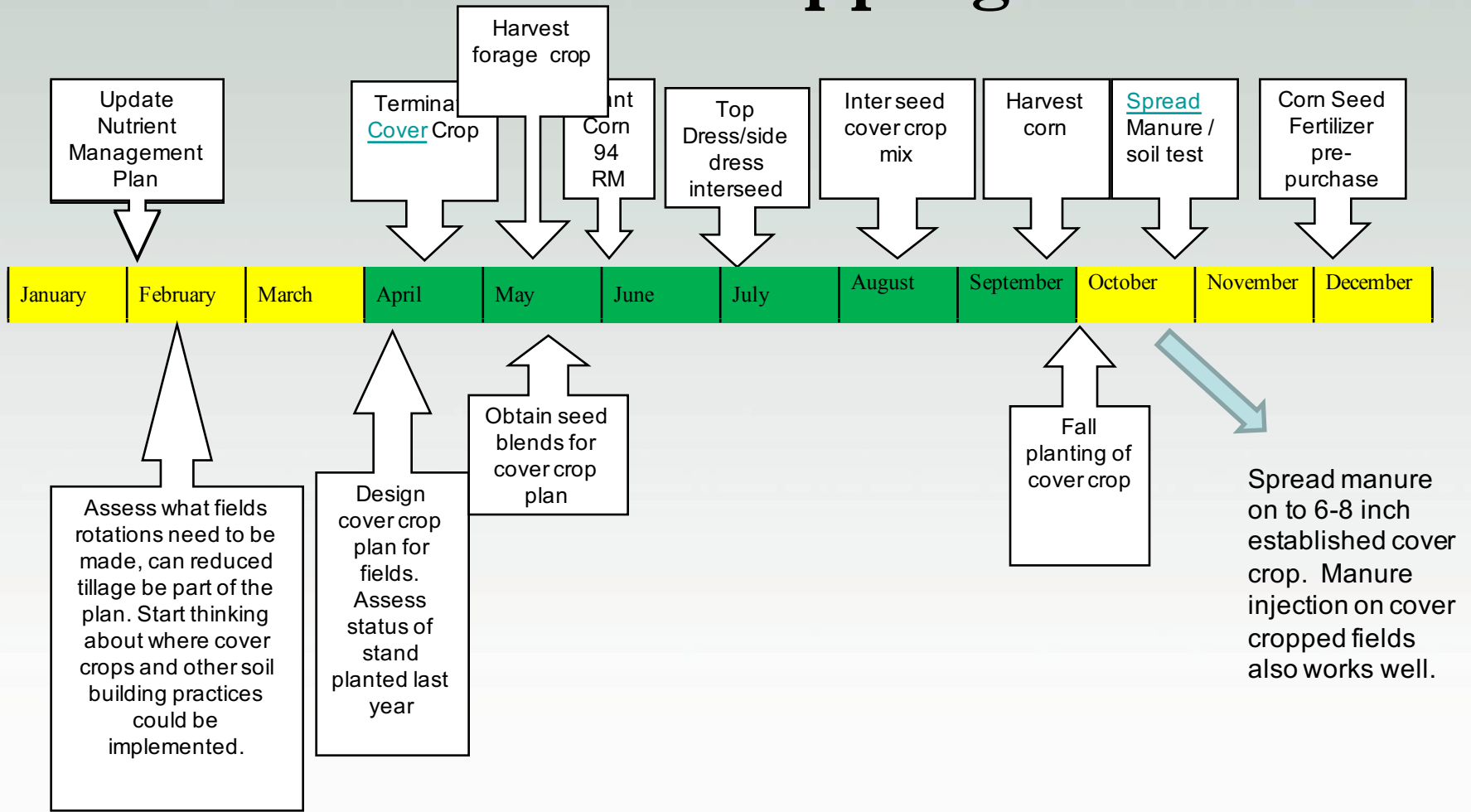
# Double Cropping

**\$55 - \$150 Return per acre**

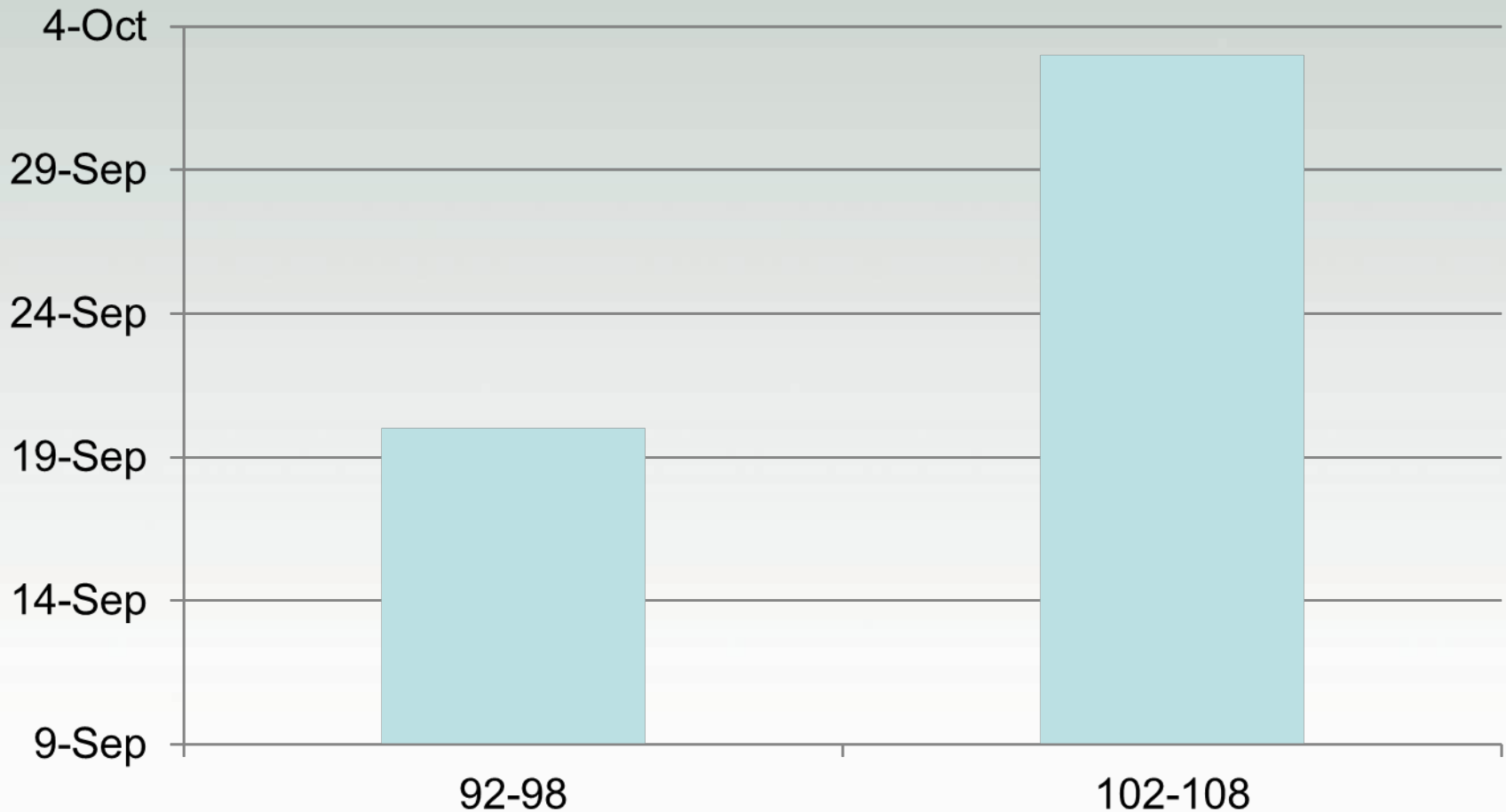




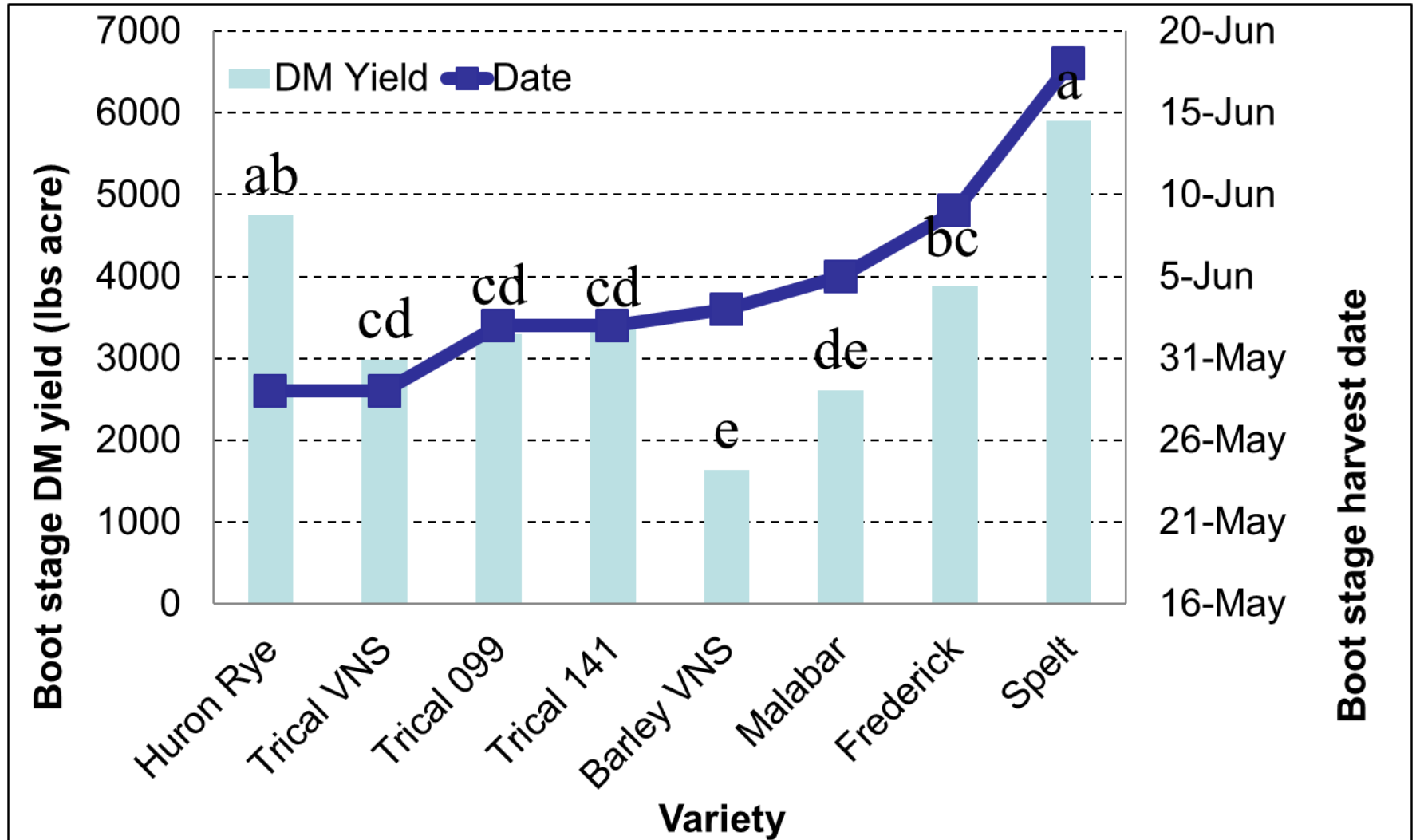
# 12 Month Cropping System for CoverCropping



# Harvest Dates of Corn

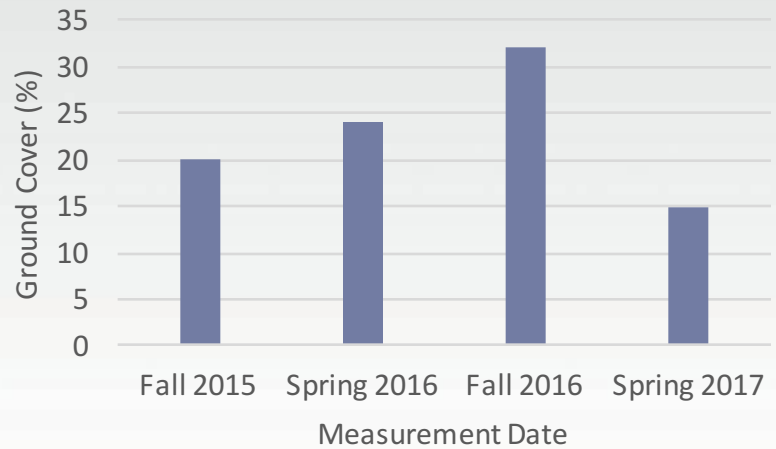


# Winter Grain Forages



A close-up photograph of a man wearing a blue shirt and sunglasses, looking down at a field of green cover crops. His hands are visible, touching the plants and the soil. The background is filled with rows of green grass-like plants growing in a field.

**30,000 acres of  
cover crops**



# Developing Corn Silage Systems to Meet the Needs of Cover Crops



**NESARE Project # LNE18-361**

**Kick the Tillage Addiction**



A photograph of a cornfield under a cloudy sky. A path of eroded, sandy soil runs through the center of the field, flanked by rows of young corn plants. The background shows a line of trees and a small white building. The text "\$50 - \$75 savings per acre" is overlaid in red in the center of the image.

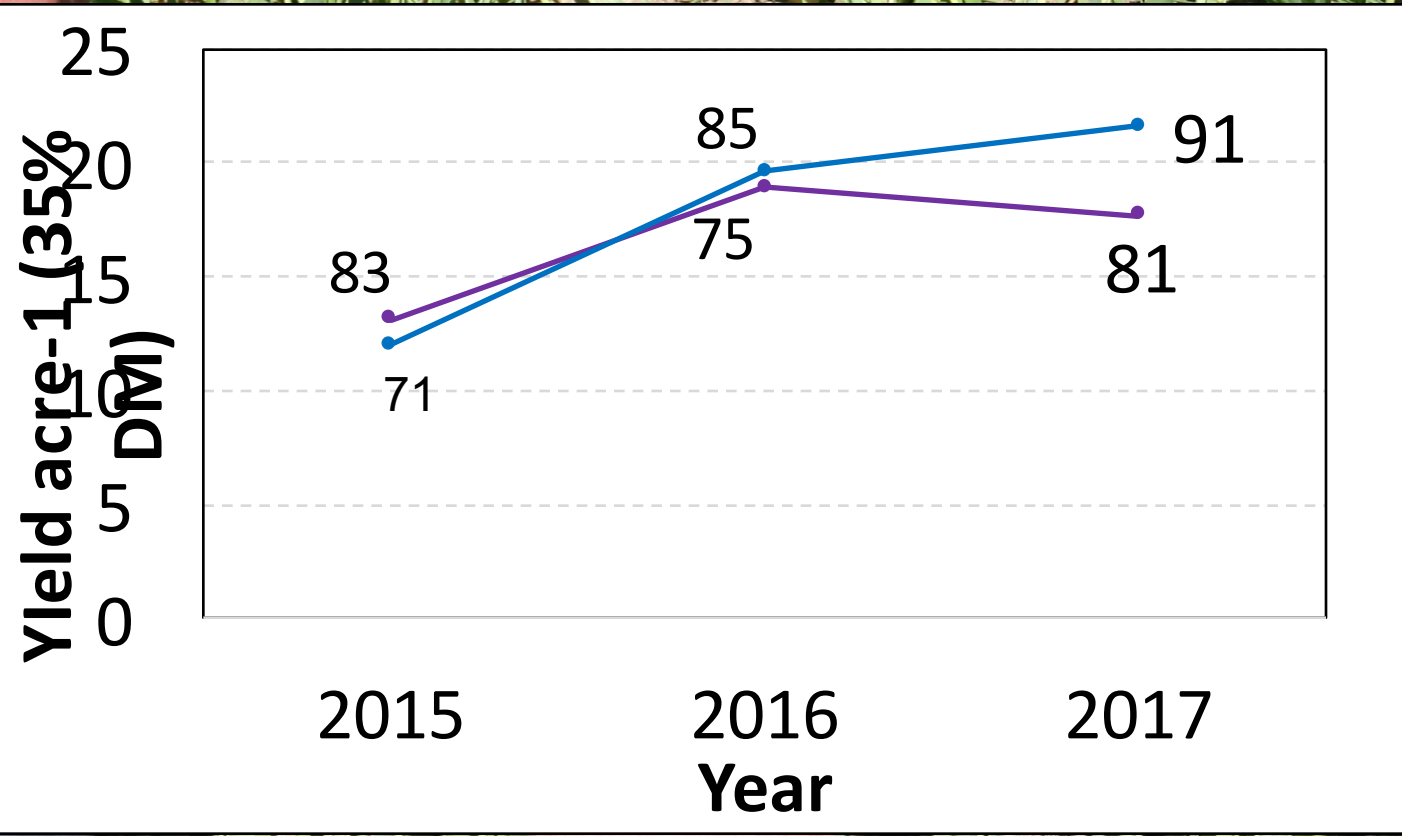
**\$50 - \$75 savings per acre**







**7000 acres of  
no-till**



# **Developing Technical Skills of Service Providers in the Northeast to Assist Farmers with Transition to No-Till**



**NESARE Project # ENE18-149**

