

An aerial photograph of a dairy farm. The farm features several large white barns, a large circular silo, and various smaller outbuildings. There are green pastures, some of which are divided into sections by fences. A large, dark, irregularly shaped pond or wetland area is visible in the center. The farm is surrounded by fields, some of which are harvested and appear brown. A road runs along the bottom edge of the farm, and a body of water, Lake Champlain, is visible in the bottom right corner. The text "North Island Dairy" is overlaid in large, bold, black letters with a yellow outline at the top. The text "Andre, Karen, and Conner Quintin" is overlaid in bold black letters in the center. The text "North Hero, VT" is overlaid in bold black letters below the center. The text "Lake Champlain" is overlaid in bold yellow letters at the bottom right.

North Island Dairy

Andre, Karen, and Conner Quintin
North Hero, VT

Lake Champlain

North Island Dairy

Milk 330 Cows

500 acres of corn (mostly silage)

350 no-till acres

150 conventional till acres

300 acres in cover crop

450 acres of hay

An aerial photograph of a dairy farm. The farm features several large white buildings, including a prominent circular silo, and various smaller structures. The surrounding landscape includes green pastures, brown fields, and a line of trees. A semi-transparent grey box is overlaid on the center of the image, containing the text.

Goals: North Island Dairy

Produce as much as our own feed as possible

Produce highest quality feed possible

While minimizing input costs

And enhancing soil and environmental health

Cover Crop History

- Cover cropping for about 10 years
- Mostly winter rye cover crops
- Wanted to reduced soil erosion
- Protect water quality



Why We Cover Crop - Benefits

- Organic matter
- Reduces compaction
- Improves soil health
- Aids in water removal from soil
- Stops erosion
- Helps control weeds
- Double cropping
- Help with no-till transition

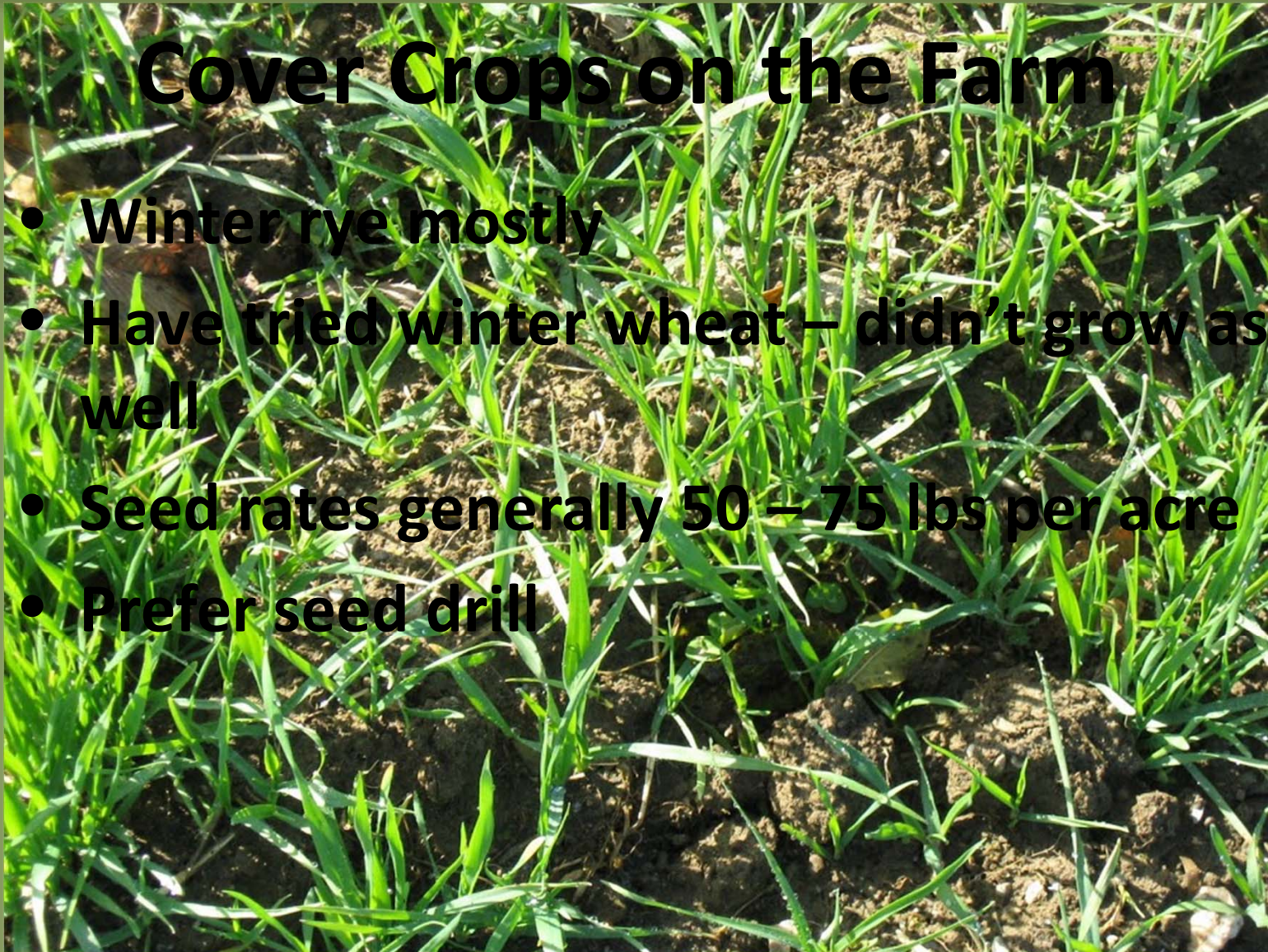


Cover Crops Remove Excess Moisture from Lake Champlain



Cover Crops on the Farm

- Winter rye mostly
- Have tried winter wheat – didn't grow as well
- Seed rates generally 50 – 75 lbs per acre
- Prefer seed drill



Soil Types for Cover Crop

First priority – hills and slopes

Second priority – Proximity lake and road

WE DO COVER CROP CLAY SOILS

If we don't make a mess during corn harvest

Many of our fields are tiled

Corn is planted no-till and cover crop sprayed

Manure is fall applied only if conditions are dry



Yes, We Have Hills in the Islands



Corn Management

- Shortened Corn Maturity
 - today average 95 RM
 - use to be 105 RM
- Yields Have Not Suffered
- We plant most of our corn as early as possible, unless harvesting cover crop for forage.
- If harvested for forage we plant corn after 1st cut



Manure

- Most all manure is spread in fall
- Ideally spread before plant cover crops
- Not incorporating manure
nitrogen loss does not offset fuel costs
of tillage

Corn & Cover Crop System

- Plant no-till corn (95 RM) into cover crop
- Cover crop is at 6 inches in normal year
- Generally early May
- Spray with pre-emergent herbicide
- Harvest corn early September
- Spread manure
- Plant cover crop soon after

No-Till Planter Modifications

- Made lots of modifications
- Removed all the modifications this past year
 - Couldn't get planter to penetrate
- Now change seed disk every year



Planter Modifications

- Make sure all bushings are not worn out
- Planter is overhauled each season (3K yearly)
- Use precision planter GPS & planter attachments







Every soil type and field is different. Get out & check

Corn and Winter Forage System

- Harvest winter forage – 3rd week May
- Plant no-till corn asap
- Spray with standard herbicide program
- Plant RR corn for insurance policy



Current Cover Crop Challenges

- Time to get the cover crop planted during busy harvest season
- Seed accessibility
 - Acquiring seed
 - Getting seed to farm on time
- Need my own grain drill

Worst Experience w/ Cover Crops

- Tried to till it under – really thick
- Planting without GPS
- TODAY WE MANAGE THROUGH NO-TILL
- VERY SELDOM DO WE PLOW A COVER CROP

Best Cover Crop Moment





Next Best Cover Crop Moment

Double and Triple Cropping

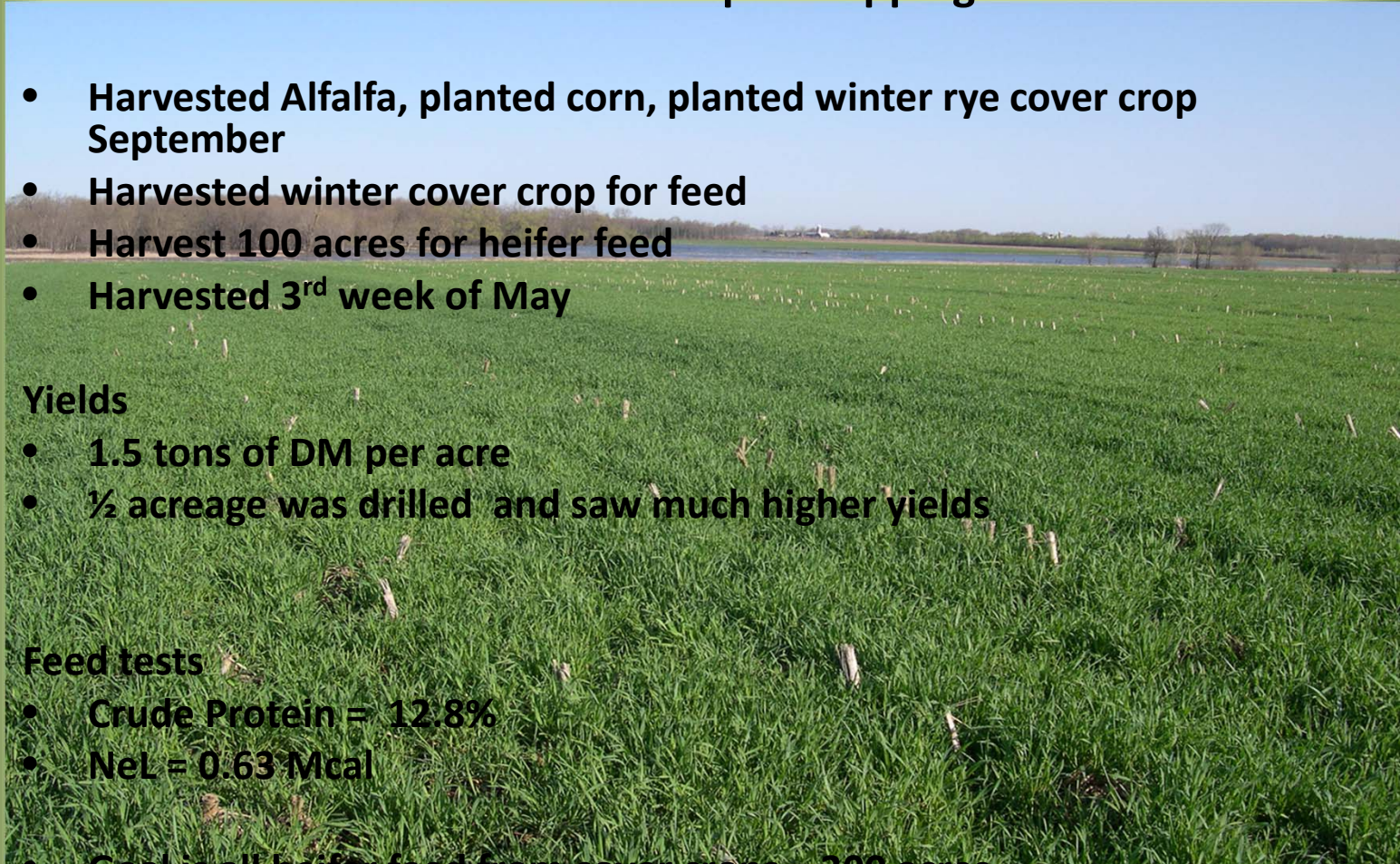
- Harvested Alfalfa, planted corn, planted winter rye cover crop September
- Harvested winter cover crop for feed
- Harvest 100 acres for heifer feed
- Harvested 3rd week of May

Yields

- 1.5 tons of DM per acre
- ½ acreage was drilled and saw much higher yields

Feed tests

- Crude Protein = 12.8%
- NeL = 0.63 Mcal
- Goal is all heifer feed from cover crops – 300 acres



Future Cover Crop Aspirations

- **Grow More Forage**
- **Higher Yields from Forage**
- **Go 100% No-Till**



An aerial photograph showing a large farm or industrial complex. The central part of the image features several large, light-colored buildings, possibly barns or warehouses, and a large, dark, circular pond. The surrounding area includes green fields, some of which appear to be harvested, and a dense line of trees along the bottom edge. A road or path runs through the middle of the complex. The overall scene suggests a rural or semi-rural setting.

Questions?

Lake Champlain