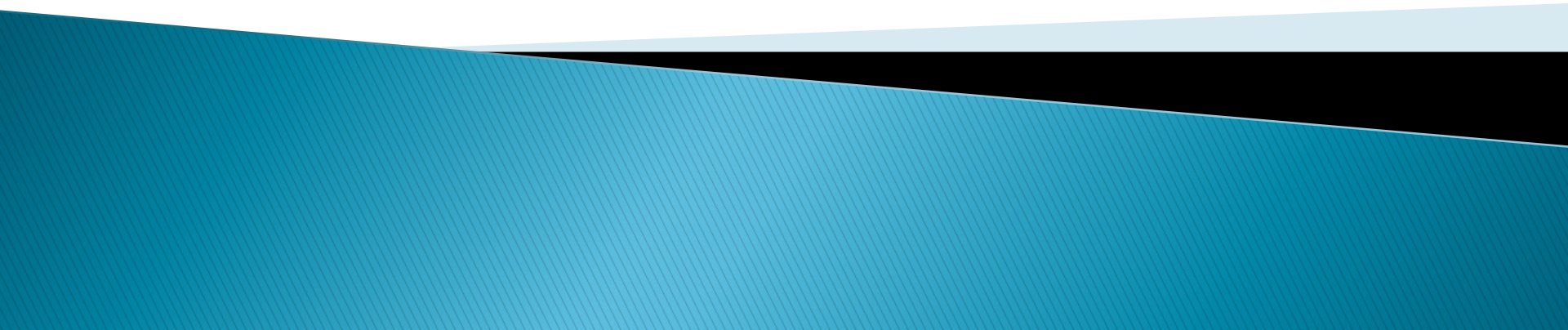


FALL COVER CROP SEEDING METHODS

ADAM NECHANICKY



AGENDA

- ▶ **WHO WE ARE**
- ▶ **WHY WE DO WHAT WE DO**
- ▶ **SOIL HEALTH PRINCIPLES**
- ▶ **FERTILIZER & PLANTING METHODS**
- ▶ **COVER CROP INTEGRATION**

WHO WE ARE

- ▶ **FAMILY FARMING OPERATION
SINCE 1902**
- ▶ **FARM IN EC IOWA
~800 AC**
- ▶ **CUSTOM FARMING
BUSINESS**

N ECHANICKY
F ARMS



WHO WE ARE

- ▶ **GRADUATED FROM IOWA STATE UNIVERSITY**
 - **B.S. AG SYSTEMS TECHNOLOGY**
- ▶ **WORKED AT KINZE MFG.**
 - **ENGINEERING DEPT.**
- ▶ **OPPORTUNITY TO TRANSITION BACK TO FARM IN 2007**

**IOWA STATE
UNIVERSITY**



WHAT WE DO

- ▶ **NO-TILL/STRIP-TILL, COVER CROPS**
- ▶ **CROPS: CORN, SEED CORN,
SEED BEANS, HAY**
- ▶ **COW/CALF HERD**

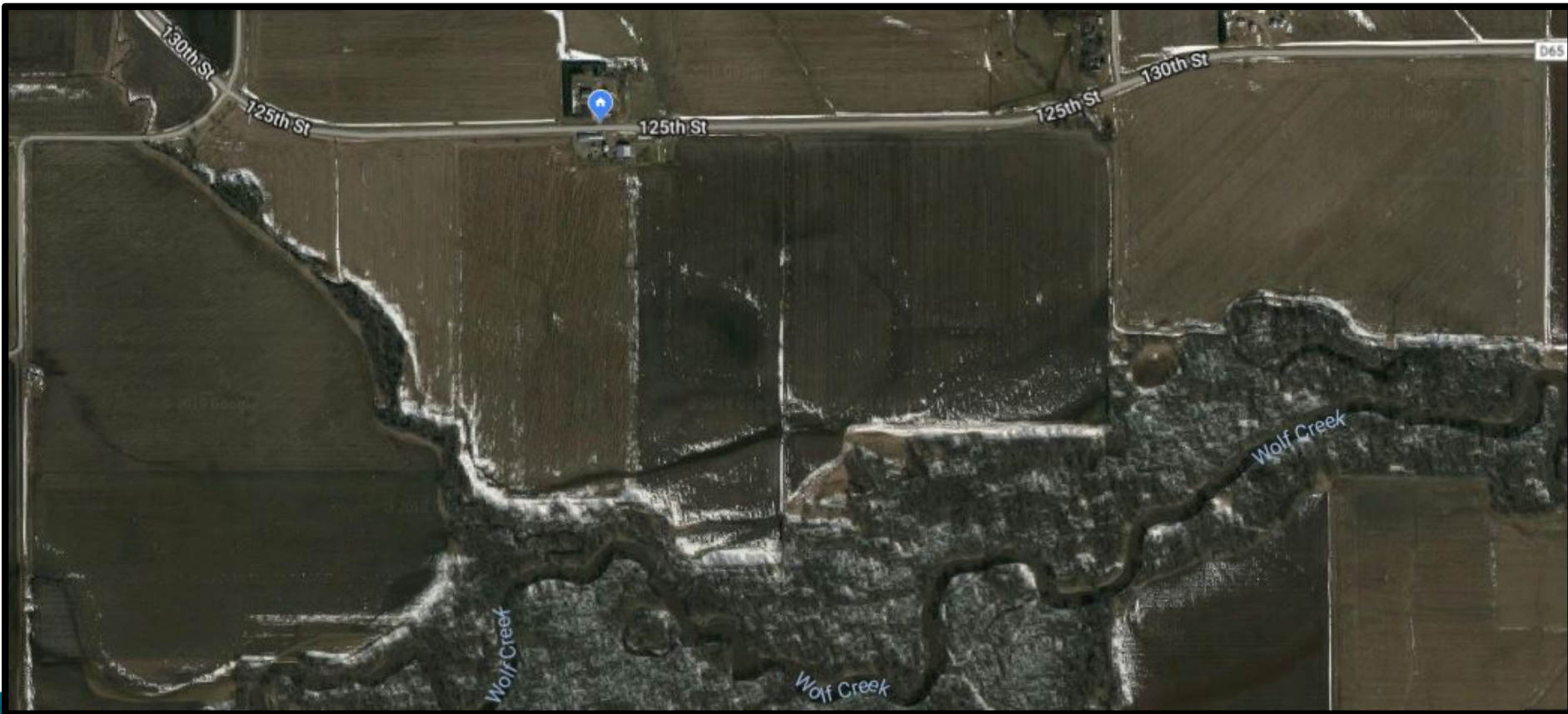


WHY WE DO WHAT WE DO

- ▶ **MINIMIZE NUTRIENT LOSS**
- ▶ **REDUCE SOIL EROSION**
- ▶ **IMPROVE SOIL HEALTH**
- ▶ **IMPROVE EFFICIENCY & PRODUCTIVITY**



WHY WE DO WHAT WE DO



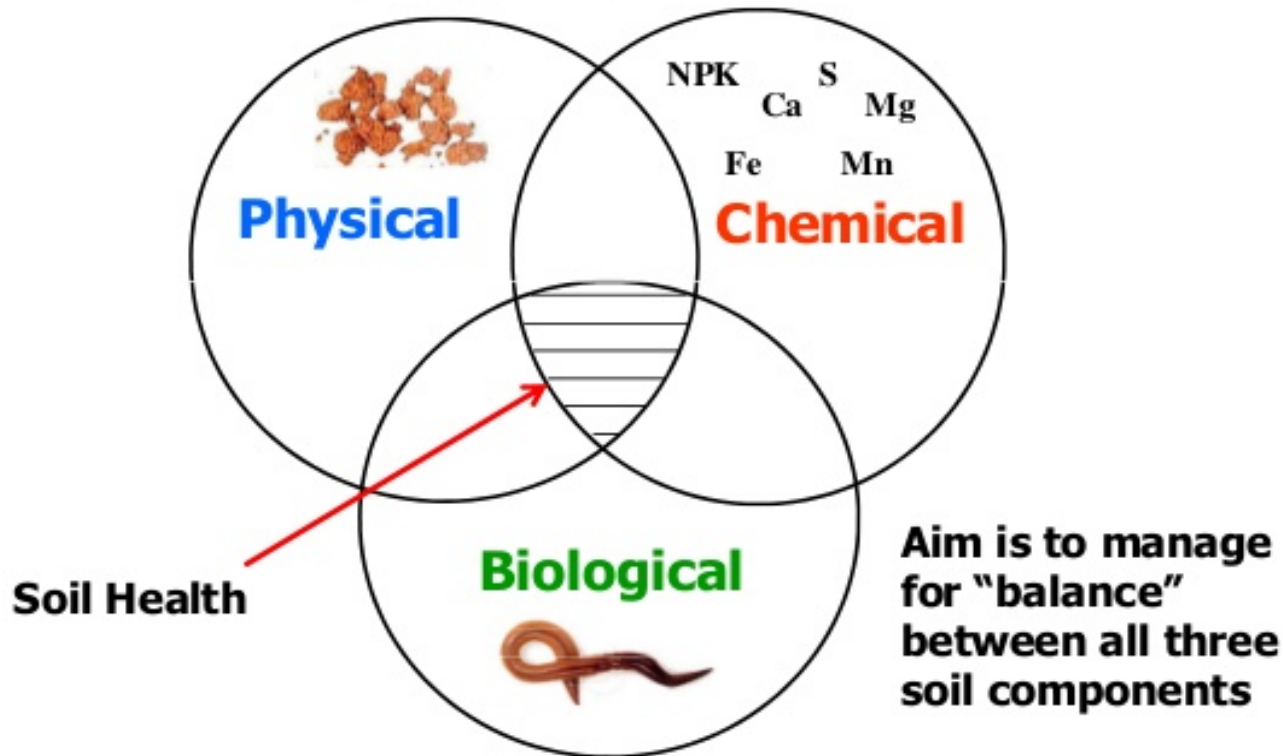
WHY WE DO WHAT WE DO

**OCT 2018, 6+
INCHES OF RAIN IN
A WEEK**



WHY WE DO WHAT WE DO

Soil quality is the capacity of a soil to function (in a farm or ecosystem) and thereby sustain productivity, maintain environmental quality, and promote plant and animal health



SOIL HEALTH PRINCIPLES

- ▶ **SOIL ARMOR**
- ▶ **MINIMIZE SOIL DISTURBANCE**
- ▶ **PLANT DIVERSITY**
- ▶ **CONTINUAL LIVE PLANT/ROOT**
- ▶ **LIVESTOCK INTEGRATION**

**AS TO METHODS THERE MAY BE A
MILLION AND THEN SOME, BUT THE
PRINCIPLES ARE FEW. THE MAN WHO
GRASPS THE PRINCIPLES CAN
SUCCESSFULLY SELECT HIS OWN
METHODS. THE MAN WHO TRIES
METHODS, IGNORING THE PRINCIPLES,
IS SURE TO HAVE TROUBLE.**

- HARRINGTON EMERSON

STRIP-TILL

- ▶ **STARTED IN 2010**
- ▶ **BOUGHT AN “AFFORDABLE” BAR**
- ▶ **REBUILT TO IMPROVE FUNCTIONALITY**



STRIP-TILL



- ▶ **2013: 16R PROGRESSIVE BAR W/ REMLINGER UNITS**
- ▶ **2018: 16R KRAUSE GLADIATOR**



PLANTER



- ▶ GRAHAM ELECTRIC DRIVES
- ▶ PRECISION PLANTING:
 - ▶ ESET METERS
 - ▶ WAVEVISION SEED TUBES
 - ▶ CLEAN SWEEP
- ▶ YETTER SHARKTOOTH TRASH WHIPPERS

- ▶ MUDSMITH GAUGE WHEELS
- ▶ FURROW CRUISER CLOSING WHEELS
- ▶ KINZE DOWNPRESSURE AIR BAGS



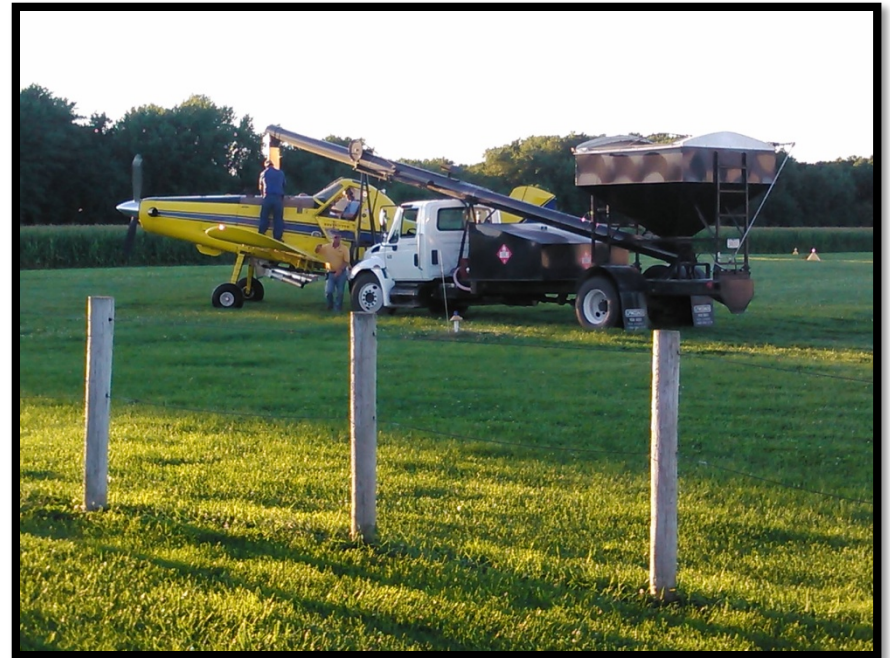
SIDEDRESS

▸ NITROGEN BAR W/COULTERS



COVER CROPS

- ▶ **STARTED IN 2014**
 - ▶ **INTERSEEDED RYEGRASS AROUND V5**
 - ▶ **AERIAL SEEDED CEREAL RYE IN SEPT**



COVER CROPS - INTERSEEDDED

JULY 25, 2014



COVER CROPS - AERIAL

SEPT 15, 2014



Nov 3, 2014



COVER CROPS - 2014 FALL

- ▶ **DRILLED CEREAL RYE ON 50 ACRES OF BEAN STUBBLE**
 - ▶ **USED IH 5100 CONVENTIONAL DRILL**
- ▶ **CEREAL RYE BROADCAST ON 80 ACRES OF CORNSTALKS(SEED CORN)**
 - ▶ **SPREAD WITH FERTILIZER, DISKED IN**
- ▶ **CURIOUS ABOUT SOIL TEMPS WITH & W/OUT COVER CROPS**

COVER CROPS - SOIL TEMPS

- ▶ **CHECKED SOIL TEMPS APRIL 22, 2015**
 - ▶ **WITH COVER 46.4***
 - ▶ **WITHOUT COVER 46***



PLANTING “GREEN” - 2015



PLANTING “GREEN” - 2015



**EVERYTHING WENT
AS PLANNED**



COVER CROPS - 2015 FALL

- ▶ **SEEDED WHEAT WITH KINZE 2600 PLANTER**
 - ▶ **MADE BACKING PLATES FOR BRUSH METERS**



COVER CROPS - 2016



COVER CROPS - 2016



**GREAT ROOT MASS,
EVEN AT 2-3" TALL**



COVER CROPS - 2016

- ▶ **INDEXED COVER CROP TO WORK WITH
STRIP-TILL**



COVER CROPS - 2016

MAY 11, 2016.. NOT LIKE I PLANNED...



COVER CROPS - 2016 FALL

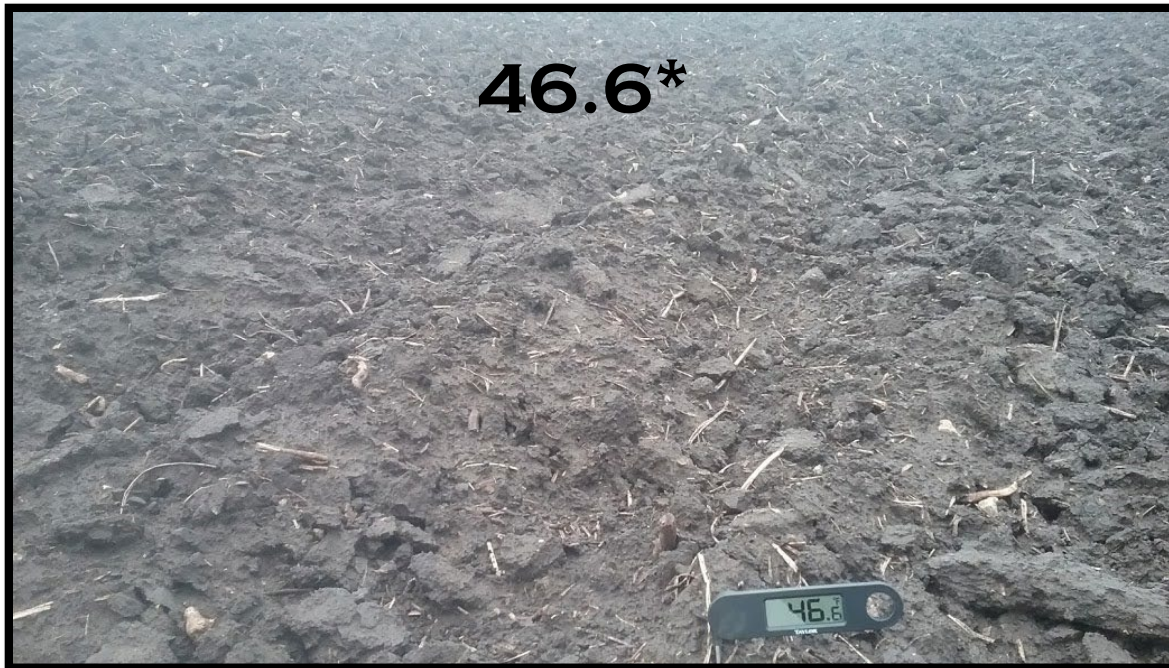


**A LOW BUCK
OPERATION!**



COVER CROPS - SOIL TEMPS

- ▶ CHECKED SOIL TEMPS
MAY 1, 2017



COVER CROPS - 2017



- ▶ **HARVESTED JUNE 1**
- ▶ **PLANTED JUNE 5**



COVER CROPS

JUNE, 9 2017: VARIABILITY?



COVER CROPS - 2017 FALL



COVER CROPS - 2018

SET UP THE HINIKER FOR TWIN-ROW



COVER CROPS - 2018

- ▶ **HARVESTED 7TON/AC**
- ▶ **PLANTED MAY 24**



HAGIE COVER CROP INTERSEEDER



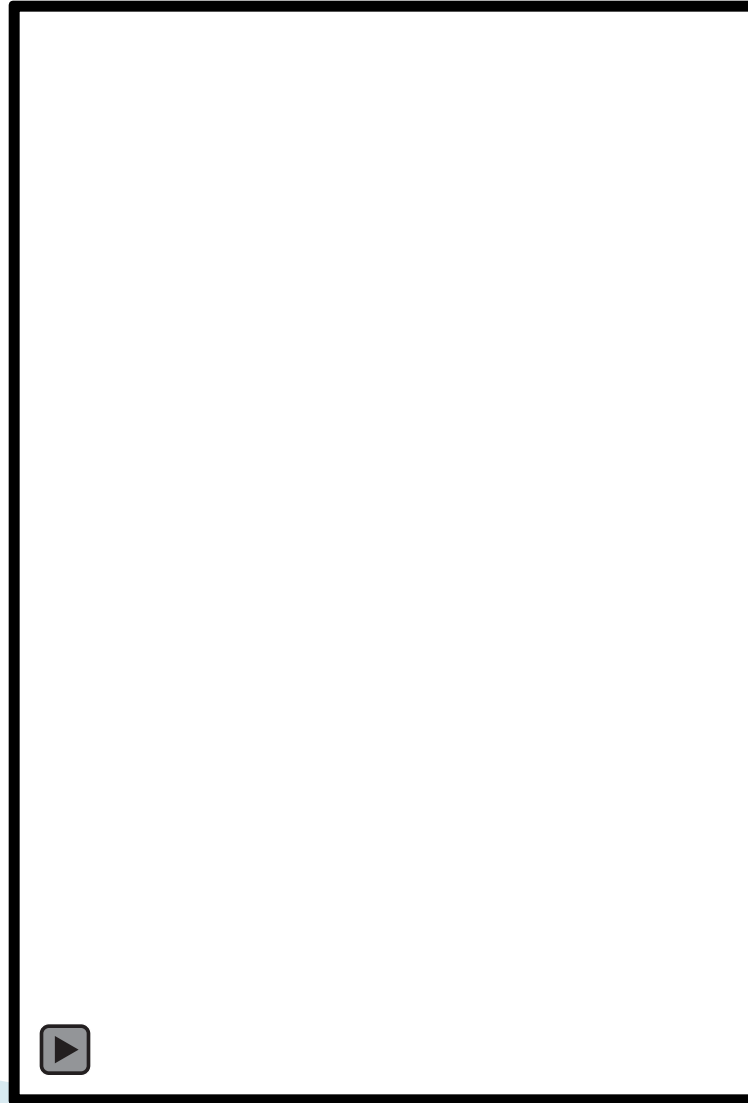
HARVEST - 11 / 1 / 2018



HARVEST - 11 / 1



COVER CROPS -2018



2019 PLANS

- ▶ **60" CORN**
- ▶ **INTERSEED ~ V4**
- ▶ **97RM CORN**



**“THE REAL WINNERS ARE THE
PEOPLE WHO LOOK AT EVERY
SITUATION WITH AN
EXPECTATION THAT THEY CAN
MAKE IT WORK OR MAKE IT
BETTER.”**

-BARBARA PLETCHER