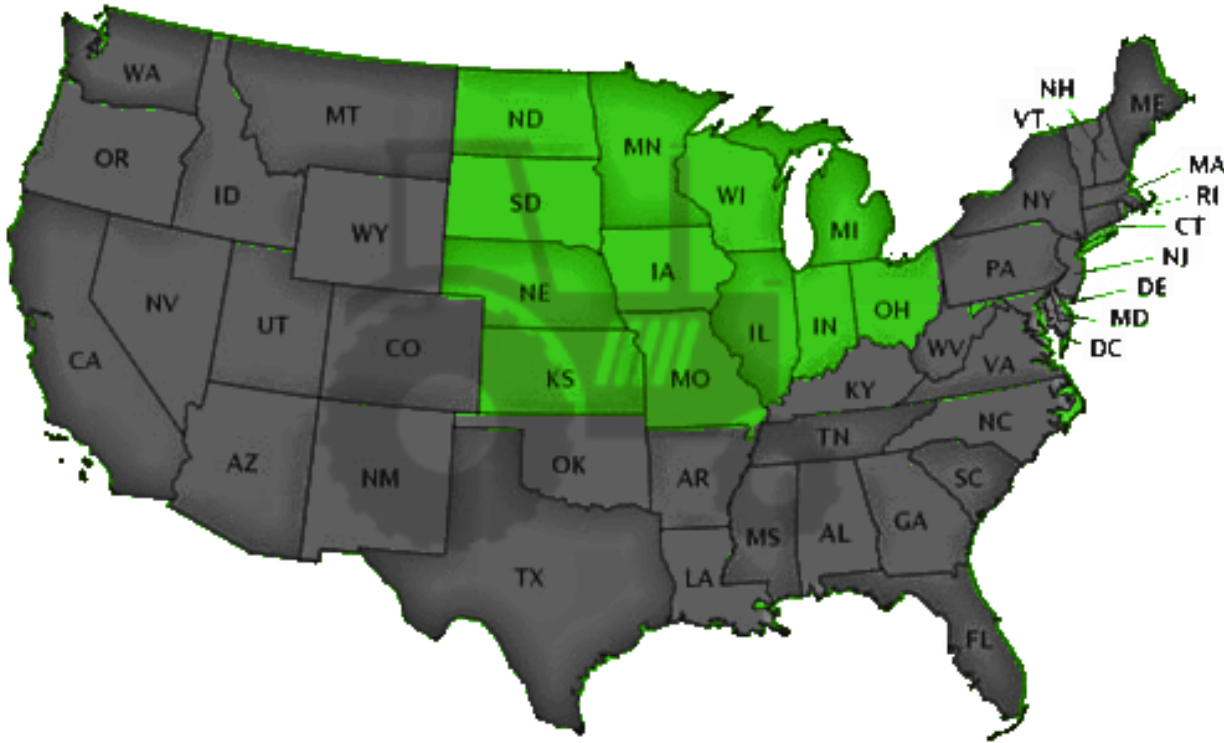


# Rapport de mission au Midwest américain



**CETAB<sup>+</sup>**

**V** CÉGEP DE VICTORIAVILLE



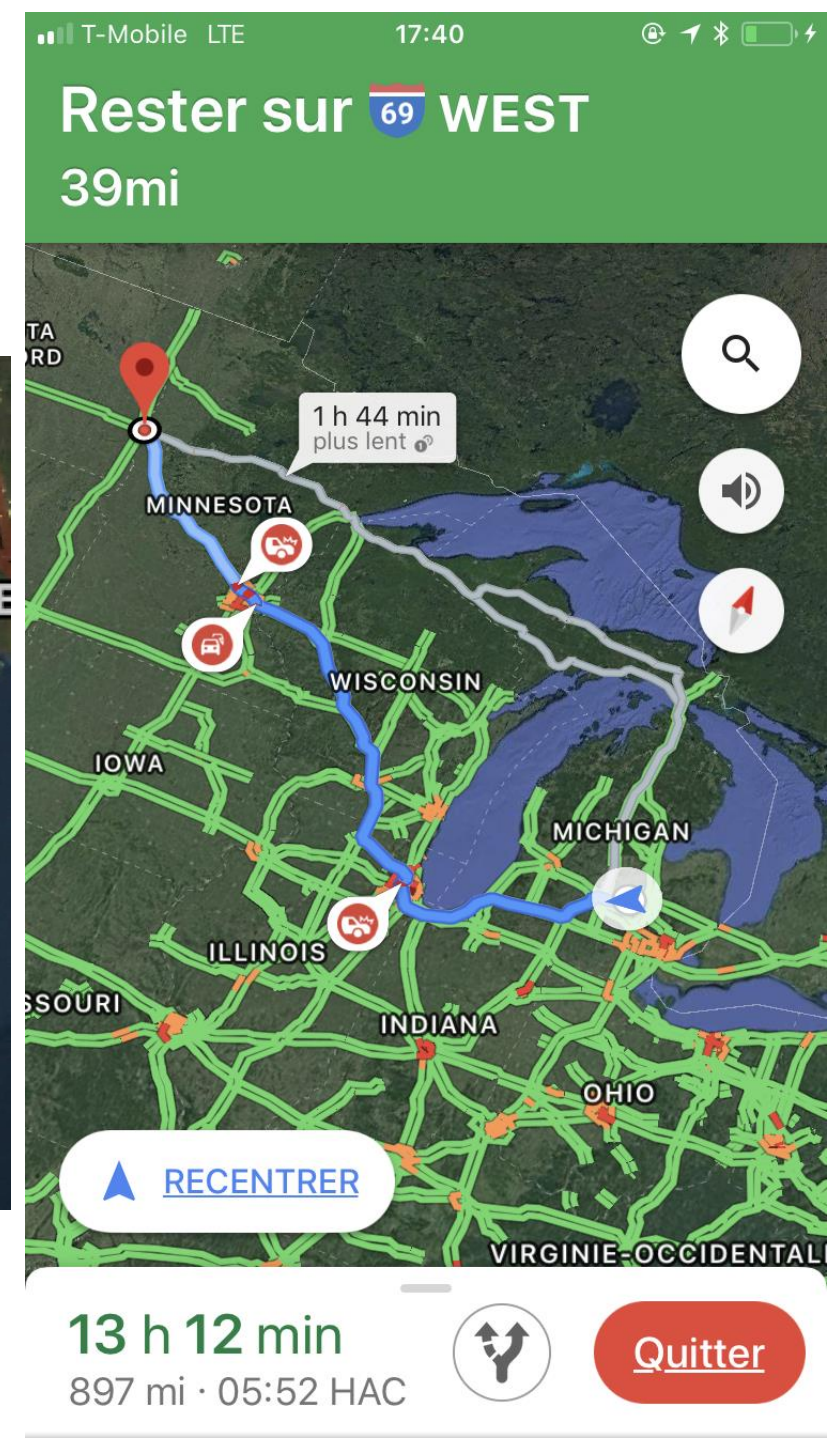
**COLLOQUE  
BIO  
POUR TOUS!**

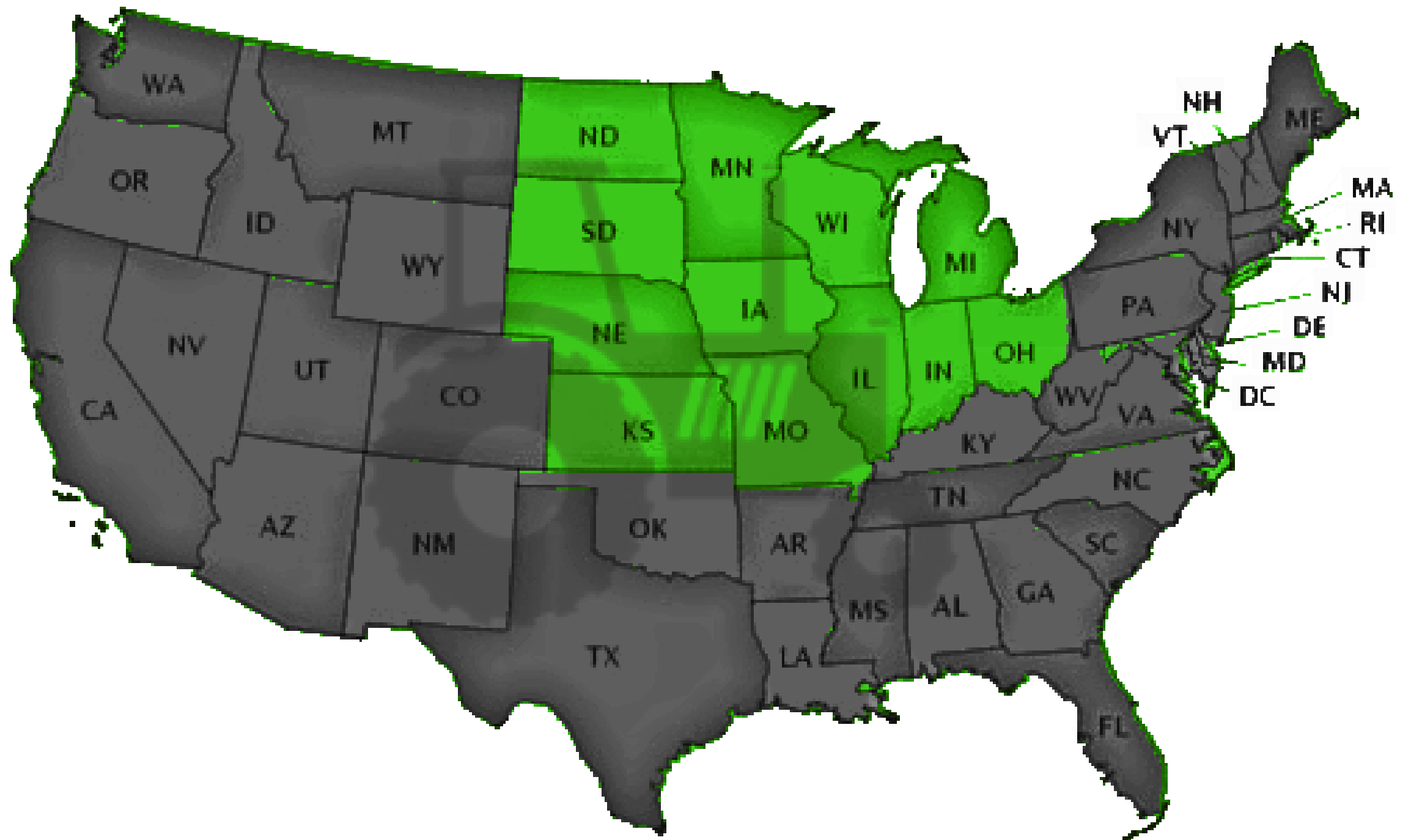


**20 ET 21 FÉVRIER 2019  
VICTORIAVILLE**















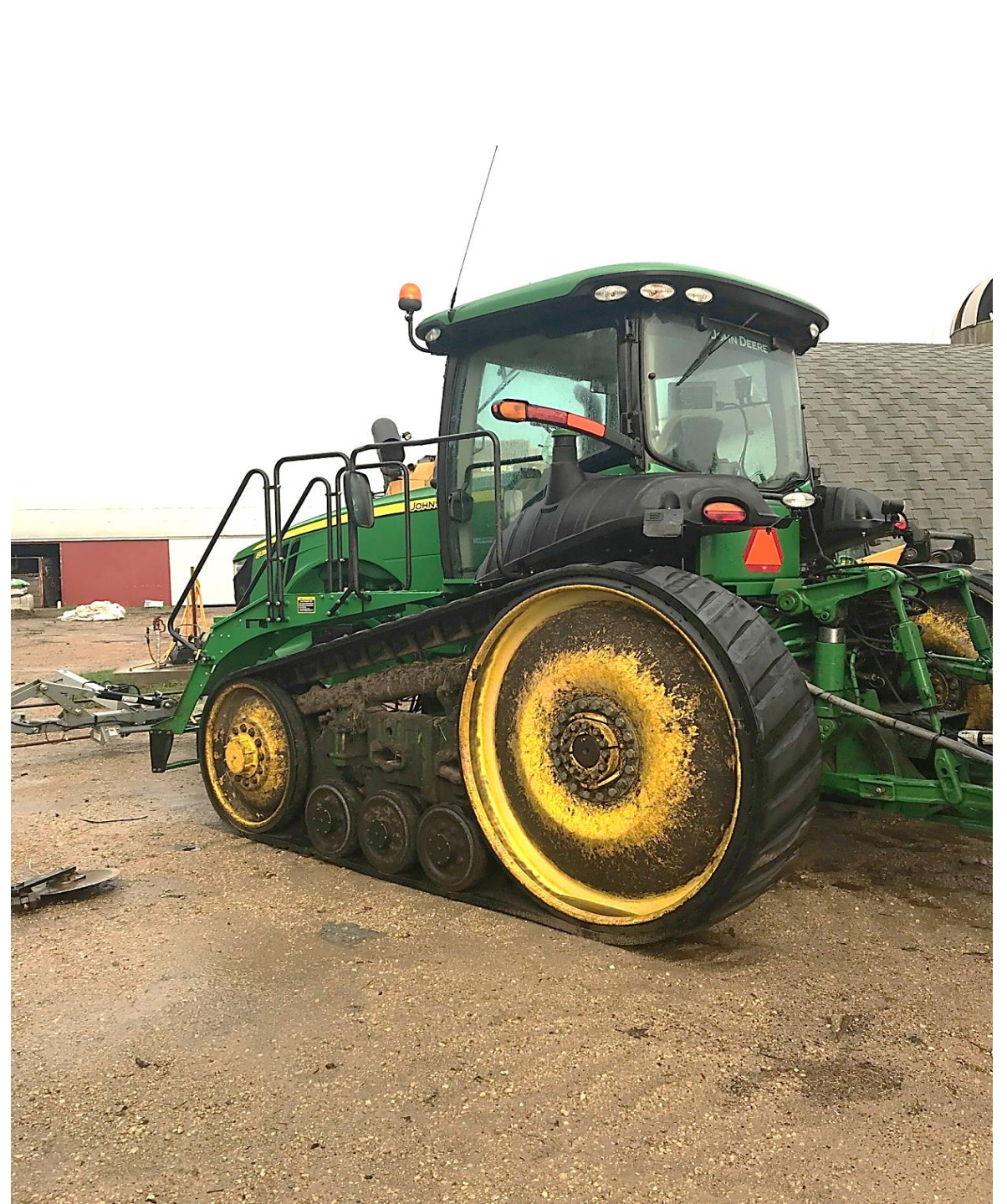
[ABOUT US +](#)[THE WEED ZAPPER +](#)[TESTIMONIALS +](#)[EVENTS](#)[SUPPORT +](#)[FAQ](#)[CONTACT US](#)[660-851-8800](#)

# Don't just kill weeds. **Annihilate them.**

Designed by Old School Manufacturing LLC, The Weed Zapper Annihilator is a ruggedly built tractor attachment that can kill weeds down to the root using electricity in as little as one pass.

[MEET THE MACHINE](#)









250 KVA – 40 pieds





















VIDEO 1

VIDEO 2







# Advanced Aerial Application

Greater precision - Lower costs

FOR FARMERS

FOR PILOTS





**ASSISTANT PROFESSOR**

**Phone:** 608-890-1503

**E-mail:** [emsilva@wisc.edu](mailto:emsilva@wisc.edu)

**ERIN SILVA**





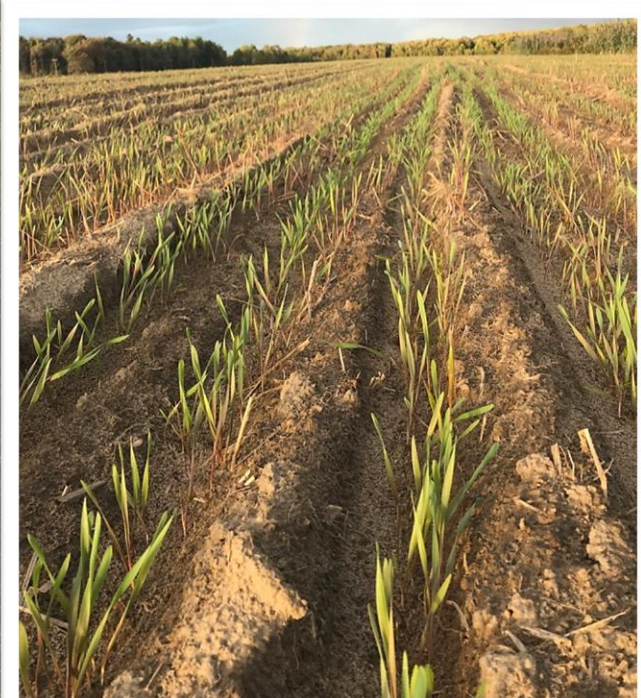








Randy Hughes





# DETASSELING SEED CORN

Coupe des « croix » dans un champ  
de maïs destiné à la semence







Organic Seed corn, 50 \$\backslashbushels (2 500 \$ \ tonnes)  
1000 \$ la poche de semence Inbred,  
30 % moins de rendement

















Office: Loftsgard Hall 270A

Phone: (701) 231-6110

E-mail:  [Marisol.Berti@ndsu.edu](mailto:Marisol.Berti@ndsu.edu)

Russell W Gesch (Russ)

[Russ.Gesch@ars.usda.gov](mailto:Russ.Gesch@ars.usda.gov)

Research Plant Physiologist



Phone: (320) 585-8432

Fax: (320) 589-3787

803 Iowa Ave

Morris, MN, 56267



# Cameline d'hiver – culture et couvre-sol

- Jusqu'à 1700+ lbs/acre au Minnesota
- Semée de fin d'été à mi-octobre; récolte en mi à fin juin
- Excellente survie à l'hiver
- % d'huile = 35-42 % - usages industriels et alimentaires





# Itinéraire technique



Avril/mai  
2016  
Semis maïs  
& soya



Août/Sept  
Semis  
cameline



October  
récolte  
maïs &  
soya



Mai 2017  
semis relai  
soya



Juin/Juillet  
récolte  
cameline



October  
récolte  
soya



Temps

↓  
Survie  
hivernale



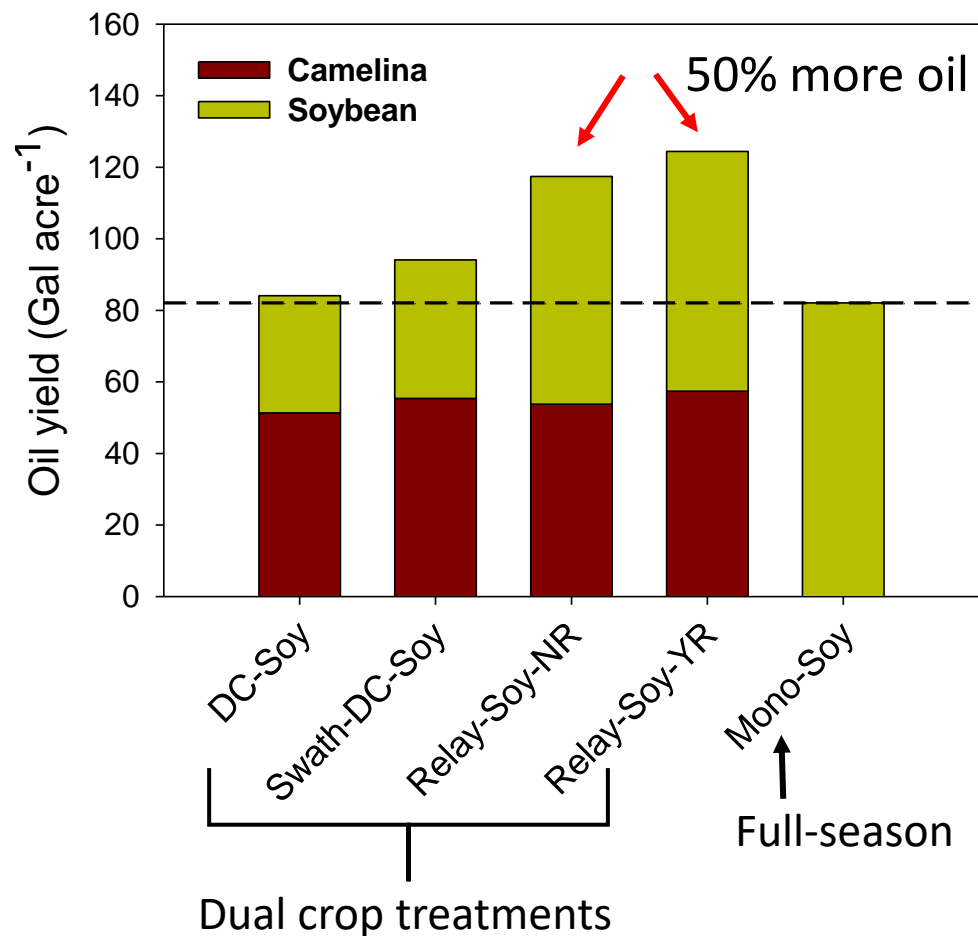
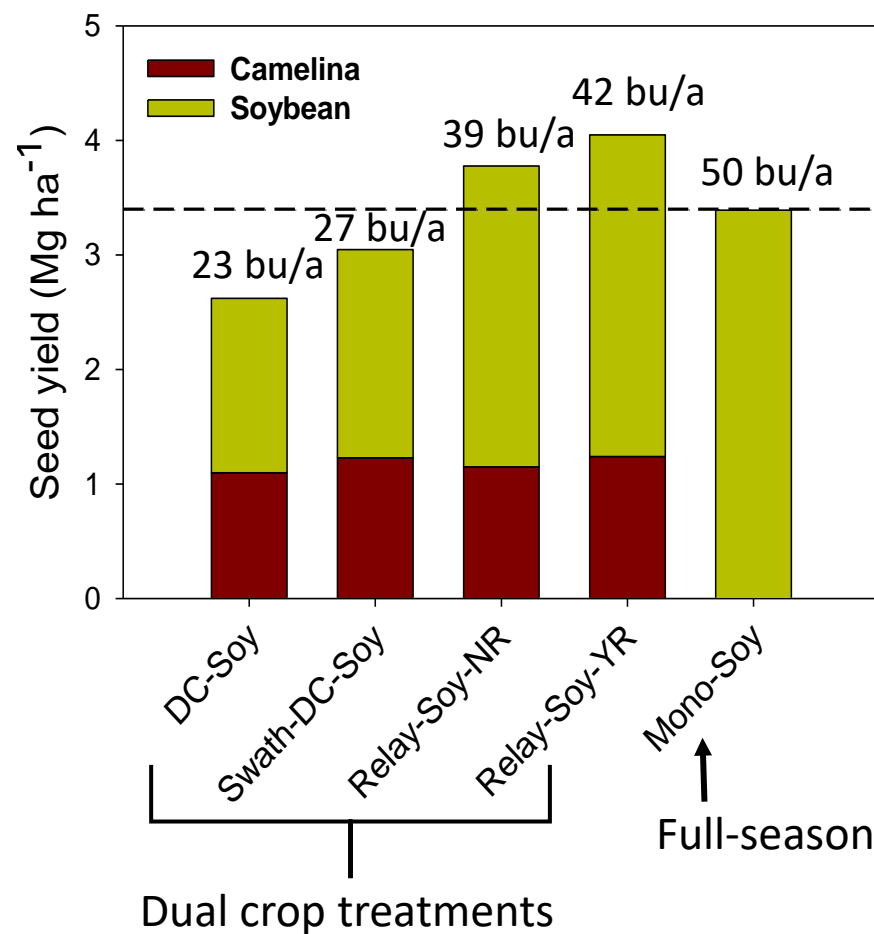


# Culture relai : soya et cameline





# Production totale supérieure en grains et huile avec une culture relai soya-cameline

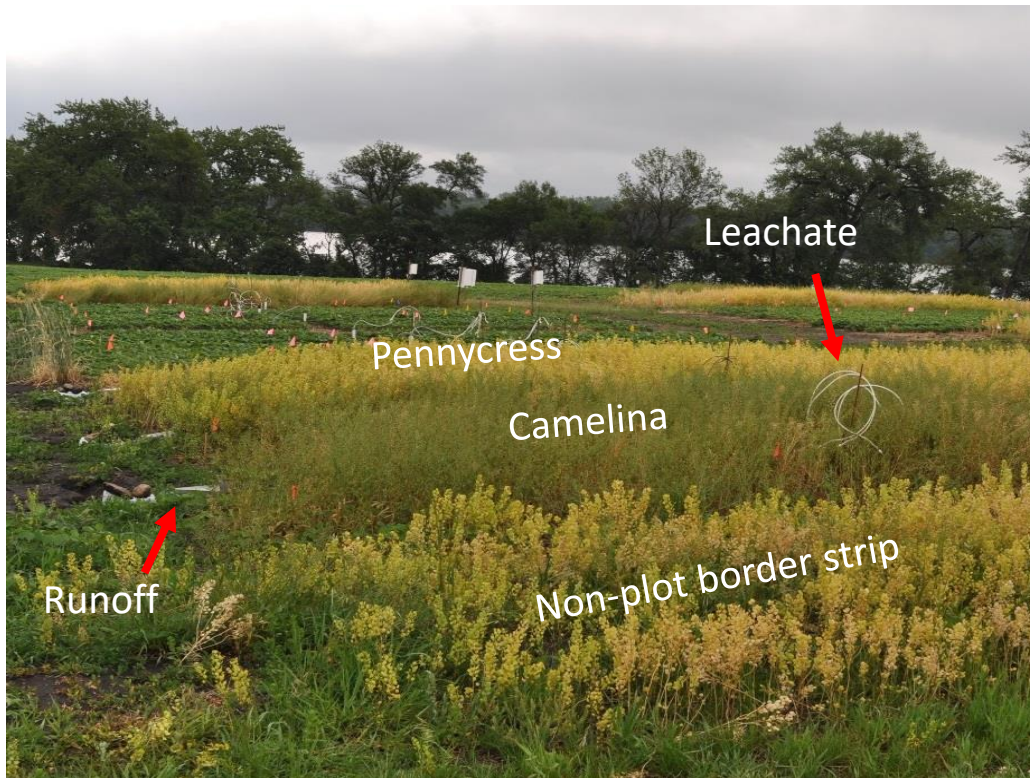


À 0,18 \$/lb pour cameline, la culture-relai procure 126 \$ à 144 \$/acre de plus



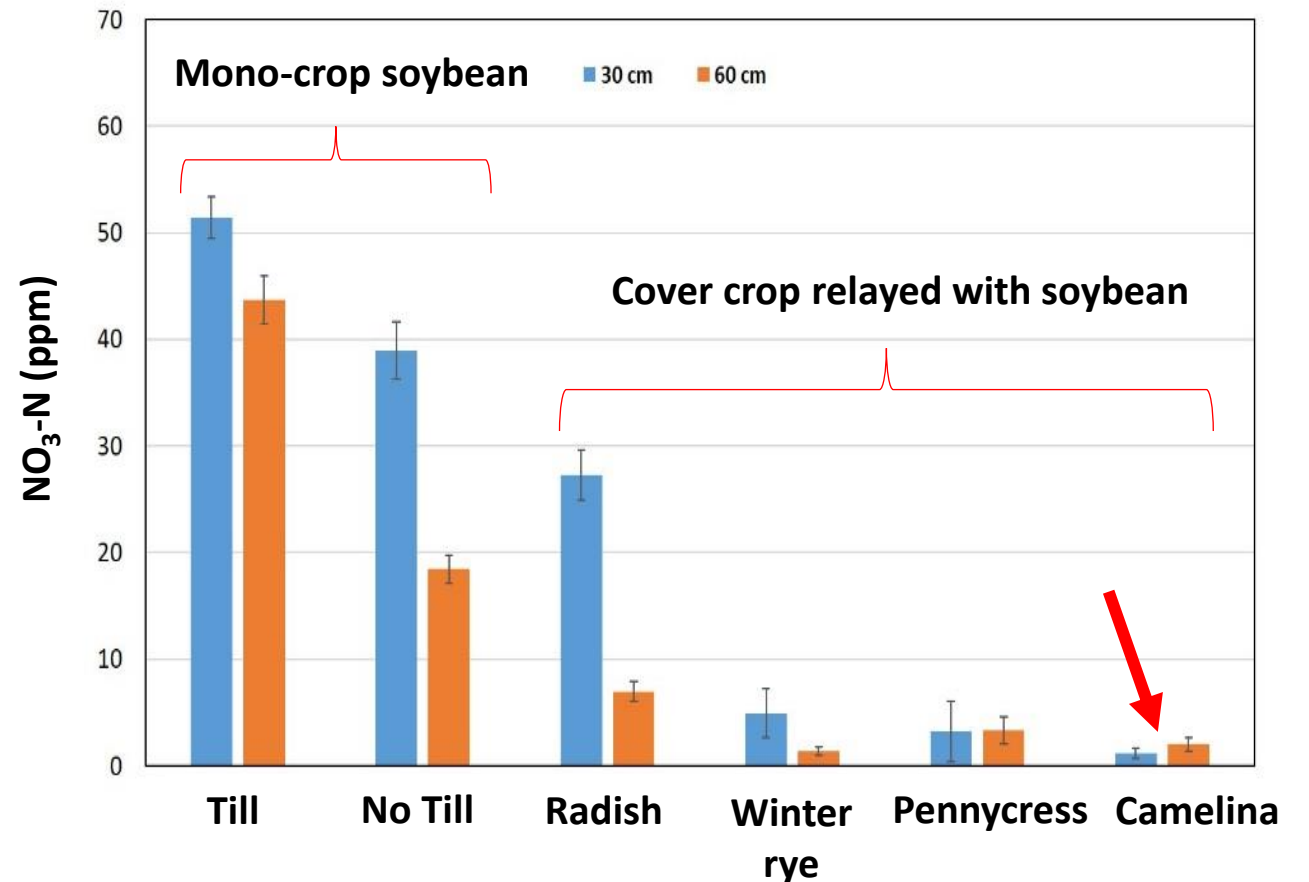
# Impact sur la qualité de l'eau

La cameline capte l'azote, réduit les pertes de nitrates pendant les périodes de risques de lessivage et ruissellement d'un système maïs-soya



## Reduce N-loss – improve water quality

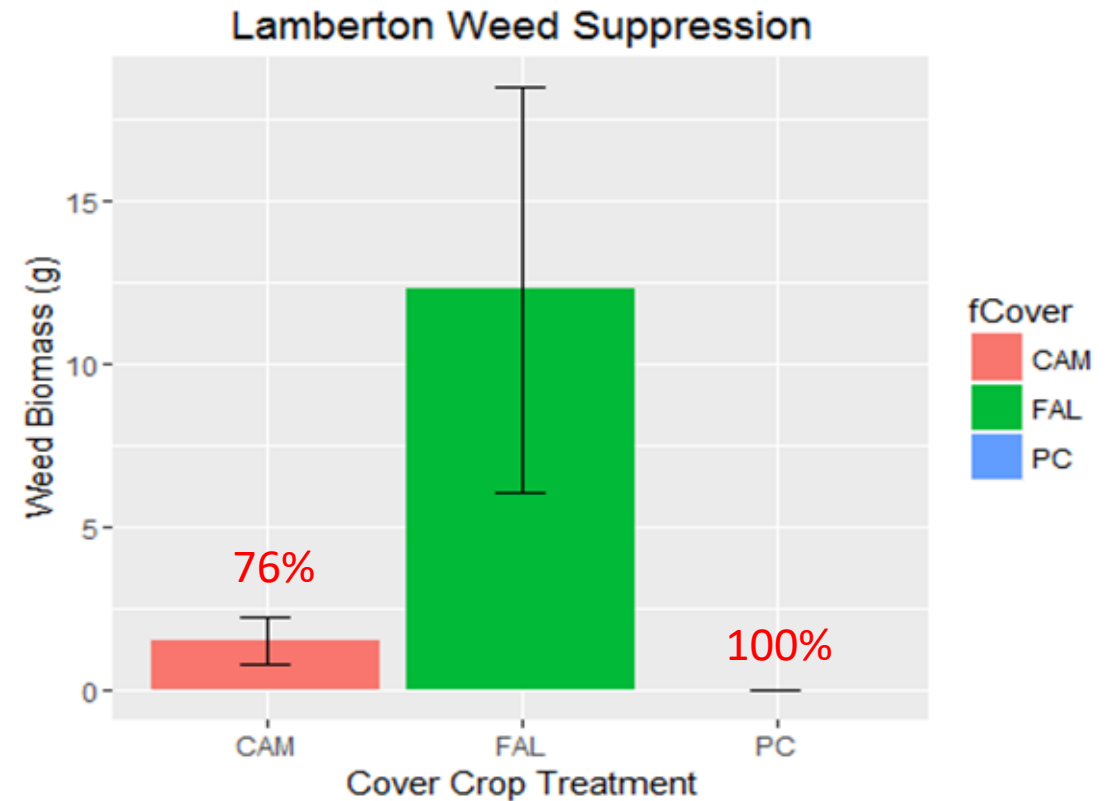
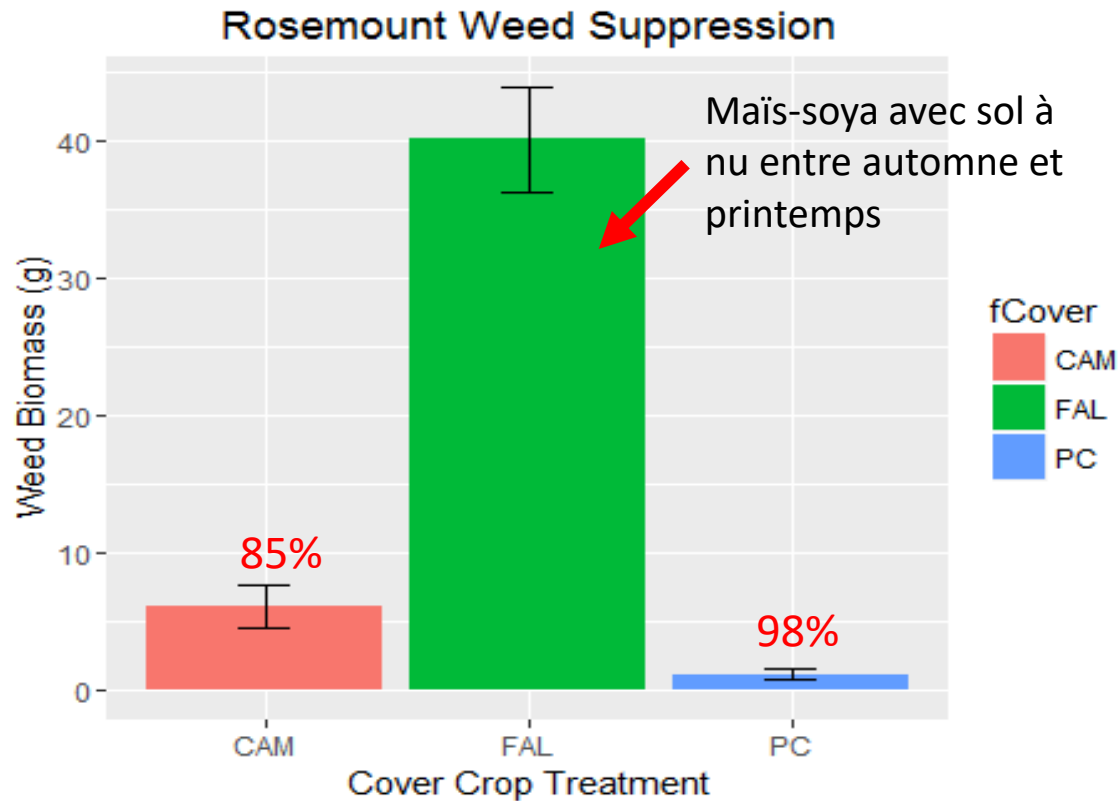
Nitrate in leachate April through June





# Effet sur les mauvaises herbes

En utilisant la cameline d'hiver (CAM) et le tabouret des champs (PC) comme couvre-sol



% contrôle des mauvaises herbes





# Tabourets

Plante



Thlaspi, est un genre de plantes herbacées de la famille des Brassicacées. La taxinomie du genre diffère selon les auteurs. Des espèces autrefois classées comme Thlaspi se retrouvent actuellement dans les genres Noccaea, Kandis et Iberis. La limite entre ces genres n'est pas clairement établie. [Wikipédia](#)

**Nom scientifique :** Thlaspi

**Rang :** Genre

**Classification supérieure :** [Brassicacées](#)





Hear Jerry Steiner,  
CoverCress Inc.'s CEO  
describe company name  
change timing.



CoverCress Inc. (formerly Arvegenix Inc.) is developing a novel crop, called CoverCress®, based on the native plant pennycress. CoverCress is a new winter oilseed cash crop designed to provide winter and early spring soil cover between corn harvest and soybean planting, while producing an oilseed crop. CoverCress oil and protein meal are similar to that of canola.

## A Productive Winter Crop that also Covers

**Oil: For food and bioenergy**



- CoverCress was developed from pennycress.
- Covers and protects open soil between corn and soybean crops.
- Produces an oilseed crop for food, bioenergy and cattle feed.
- Fits on 30-32M acres that each year rotate from corn to soybean.



The CoverCress story  
in under 3 minutes!



CoverCress fits on the  
30-32M acres rotating  
to soybeans.



Take a tour of a  
CoverCress research  
field.



C3- Cereales, Graminée

Cool Season

GRASS

Cool Season

Broadleaf

Feuilles large, saison froide  
Pois, luzerne, trefle, feverole

C4 –Mais, sorgho, millet, graminée

WARM Season

GRASS

WARM Season

Broadleaf

2016  
Feuilles large, saison chaude  
Soya, tournesol, chanvre, etc

BIEBER FARM  
RICHARD BIEBER  
26532 - 127TH ST.  
TRAIL CITY, SD 57657



- <http://www.theconsciousfarmer.com/plant-health-sugar-levels/>



## PLANT HEALTH AND SUGAR LEVELS

posted by Kirrily Blomfield



### SUBSCRIBE TO NEWSLETTER

Don't miss out! Get notified  
when we post new articles.

Email Address:

Subscribe Now!

### RECENT COMMENTS



**mainchris** { G'day Kirrily.  
Thanks for another great  
article. One thing I haven't  
seen mentioned in this debate,  
which I think is very important,  
is the... } – **Nov 26, 2:06 PM**



**AndrewMoree** { Hi Kirrily,  
is the photo @ top of article an  
area where cattle were blocked  
up or corralled ( eg high animal  
impact ?). If... } – **Nov 26,  
11:21 AM**





**ZRX-Roller/Crimper**

**DuoSeed**

**RowMow**

**Connect**















**Cover crops are here to stay.**

Now, using them effectively may be the difference in your farm's future.

**What will you do next?**





January 29, 2019 to January 30, 2019

Location

Wichita, Kansas Hyatt Regency Hotel and Century II Convention Center

Join us for the 23rd annual No-till on the Plains Winter Conference in Wichita, KS, featuring an expert lineup of soil health speakers.



Winter Conference Speakers



Lodging



Area Attractions

REGISTER ONLINE FOR THE CONFERENCE

VIEW THE AGENDA

PRINTABLE AGENDA

Conference

2019 General And Breakout Sessions

AIM Symposium

Beginner's Soil Health Workshop

Registration

All Speakers

2019 Networking Banquet

Sponsors

Lodging

Area Attractions

RICK BIEBER

No-till Producer, Trail City, SD

Rick Bieber is a no-till farmer from north central South Dakota. He farms in a 16-inch precipitation zone on 5,000 acres of cropland and also has 5,000 acres of rangeland for a 400-head cow/calf operation. He has been in a continuous no-till system for over two decades with main crops of hard red spring wheat, hard red winter wheat, corn, flax, peas, soybeans, safflower and alfalfa. Rick is intensely interested in keeping the farm operation economically viable and gets to the heart of a problem quickly before it becomes major. Rick is a strong advocate of diverse crop rotations and profitability for successful no-till systems and has been a popular speaker at a number of no-till conferences throughout the Northern Great Plains and Pacific Northwest of the United States over the past 20 years.



GABE BROWN

No-till Producer, Bismarck, ND

Gabe is one of the pioneers of the current soil health movement which focuses on the regeneration of our resources.

Gabe, along with his wife Shelly, and son Paul, own and operate a diversified 5,000 acre farm and ranch near Bismarck, ND. Their ranch focuses on farming and ranching in nature's image.



The Browns holistically integrate their grazing and no-till cropping systems, which include a wide variety of cash crops, multi-species cover crops along with all natural grass finished beef and lamb. They also raise pastured laying hens, broilers and swine. This diversity and integration has regenerated the natural resources on the ranch without the use of synthetic fertilizers, pesticides and fungicides.

The Browns are part owners of a state inspected abattoir which allows them to direct market their products. ml and allows them to have their meat sold through local markets and to the local restaurant and grocery

RAY ARCHULETA

Soil Scientist & Farmer, Seymour, MO

Ray Archuleta is a farmer from Seymour, MO. He teaches Biomimicry Strategies and Agroecology principles on a national scale for improving soil function. He has over 30 years of work experience has a Soil Conservationist, Water Quality Specialist, Soil Health Specialist and Conservation Agronomist with the Natural Resources Conservation Service. He worked in the following states: New Mexico, Missouri, Oregon, and North Carolina. He is also a Certified Professional Soil Scientist with Soil Science Society of America. He also served two years in Guatemala as a Livestock Specialist in the Peace Corps. He received A.S. in Livestock Science from Northern New Mexico College and a B.S. in Agricultural Biology plus 30 hours of graduate school in soil related classes from New



DAVID BRANDT

No-till Producer, Carroll, OH

David Brandt farms 1150 acres all no-till, in Fairfield County, Central Ohio. He began no-till farming in 1971 and has been using cover crops since 1978. David has participated in yield plots for corn, soybeans, and wheat into various covers. This information has been used by seed growers as well as county agents and universities to encourage other farmers to adapt no-till practices in their farming operations. He has also been planting various blends of cover crops to find out what benefits they provide to improve soil health.



Joel Gruver, Associate Professor of Soil Science and Sustainable Ag, Allison Farm

Knoblauch Hall 302  
(309) 298-1215  
J-Gruver@uiiu.edu

Dr. Gruver earned his BS in Chemistry from Principia College in Elsah, Illinois, his MS in Agronomy from the University of Maryland in College Park, and his PhD in Soil Science from North Carolina State University in Raleigh.

He teaches the following courses:

- AGRN 278 - Fundamentals of Soil Science
- AGRN 378 - Soil Fertility and Plant Nutrition
- AGRN 473 - Nutrient Management
- AGRN 478 - Soil Properties
- CONS 305 - Introduction to Sustainable Agriculture
- CONS 405 - Soil and Water Conservation
- AGR 340 - Communicating Agricultural Issues

In addition to teaching Dr. Gruver is the Director of the UIU Organic Research Program. He received the National No-Till Educator of the Year Award in 2015. His research interests include conservation cropping systems with a focus on cover crops and organic grain production, soil organic matter, and innovative teaching methods.







Loran Steinlage











**Feb. 21-23, 2019**

La Crosse Center, 300 Harborview Plaza, La Crosse, Wis.

**Register**

**60 Workshops | 6 Sessions**

*Crops, Livestock, Market Farming, Soils, Business, & More*

**9 Organic University™ Full-Day Classes (Feb. 21)**

*Dig deeply into a farming topic!*

**2-Floor Exhibit Hall**

*Buyers, Suppliers, Ag Agencies, Tools & Services*

**3,500 Participants**





# Transforming Organic Agriculture™



## Drive to Innovate

Agriculture does not stand still! AgriSecure is prepared to be the leader in organic innovation. Our staff constantly works to identify and evaluate best-in-class crop inputs, technologies, equipment, and production techniques to benefit our clients.

Learn more about [Our Company](#). →



# GOT ORGANIC?

Welcome to the Age of 21st Century Organic Farming

Nancy Pfund, Lucas Strom • November 2018

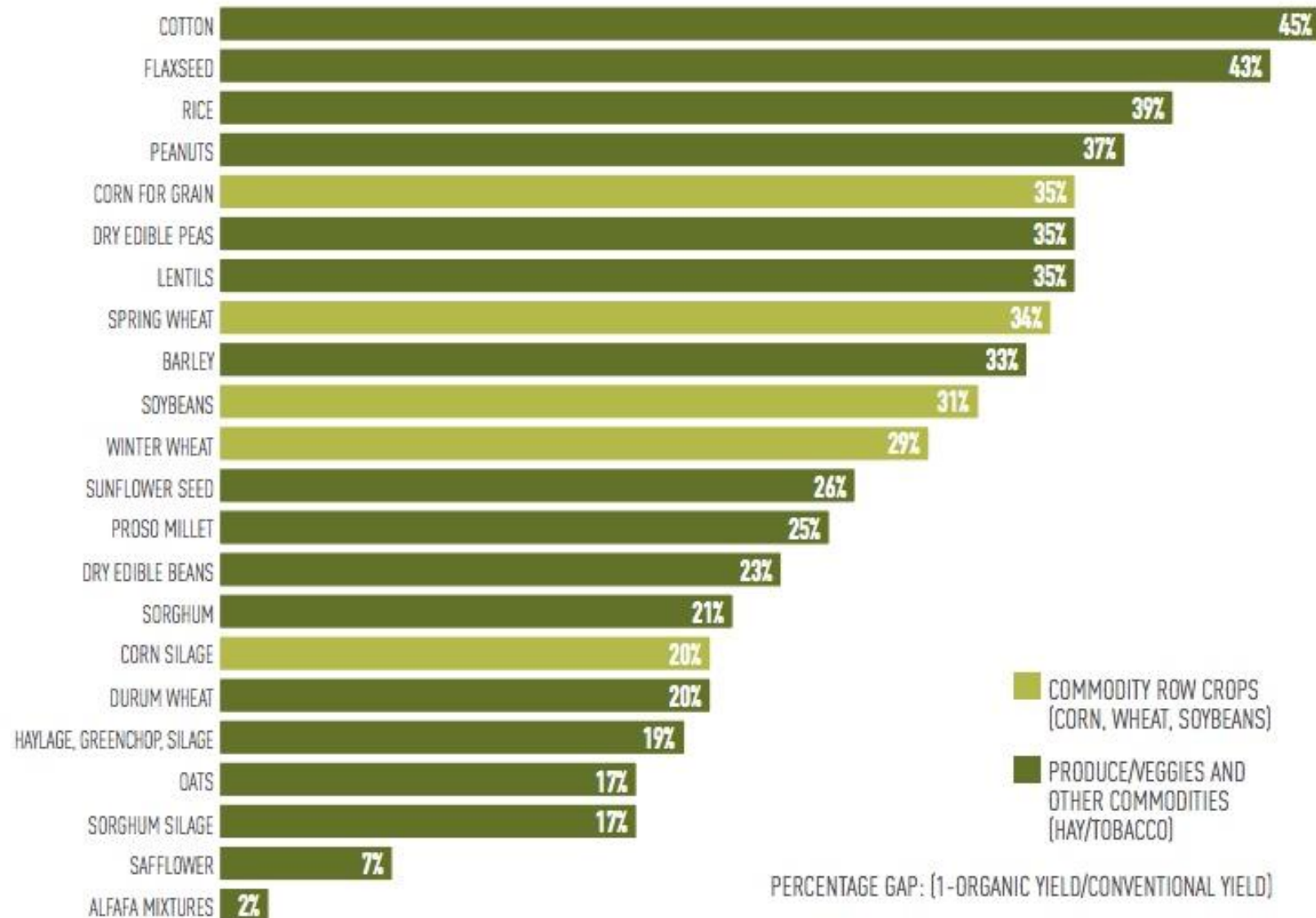


Exhibit 5: **Average yields per acre for organic crops are substantially lower than conventional counterparts**

Source: Savage and Associates Consulting, independent analysis based on 2014 USDA Organic Survey data and USDA-NASS statistics.





Tweets  
2 016

Abonnements  
4 245

Abonnés  
9 562

J'aime  
3 251

Listes  
2

Moments  
4

Suivre

## FBN

@FBNFarmers

By connecting you with thousands of the best farmers, the FBN network generates profitable insights, input savings, and better crop prices. (844) 200-FARM

San Carlos, CA

FBN.com

Inscrit en novembre 2014

591 Photos et vidéos



### Tweets

### Tweets & réponses

### Médias



Tweet épinglé



FBN @FBNFarmers · 26 déc. 2018

Thank you for sharing! We're so happy for your family! fbnhealth.com

**Randy Uhrmacher** @Cornfmr

A little FYI for farmers struggling with health insurance.

The final numbers are in for our family.

2



13



FBN @FBNFarmers · 20 h

Cover Crops Now Do What Weeds Used To  
#covercrops



## Nouveau sur Twitter ?

Inscrivez-vous maintenant pour obtenir votre fil d'actualités personnalisé !

S'inscrire

## Vous aimerez peut-être aussi ·

Actualiser



**Amol Deshpande**  
@amoldeshpande78



**Jerod McDaniel**  
@jerodmcdaniel



**SharkFarmer**  
@sf28430



**Randy Uhrmacher**







# RUNNING YOUR OWN ON-FARM FIELD TRIALS

TRYING SOMETHING NEW ON YOUR FARM

## WHAT CAN YOU TEST AND TRIAL ON YOUR FARM?

SEED  
VARIETIES

PLANTING  
CONSIDERATIONS:  
SEEDING RATE,  
PLANTING SPEED,  
ROW SPACING

NEW OR DIFFERENT  
CHEMICAL  
FORMULATIONS OR  
CHEMISTRIES, MOAS OR  
APPLICATION RATES

VARIABLE RATE  
FERTILITY  
APPLICATIONS

TILLAGE  
PRACTICES

OTHER VARIABLE  
MANAGEMENT  
PRACTICES

## HOW TO SET-UP AND RUN YOUR TRIAL

TYPES OF FIELD TRIALS

HERE ARE SOME COMMON METHODS TO LAY OUT YOUR TRIAL:

### STRIP TRIALS

Strip trials are sections of a field that are planted or treated differently in order to compare management practices. Variables are assessed and compared in strips, usually the length of the field. For example, you might plant four to six rows, in 500-foot-long rows.

Buffers are strips that are not part of your trial and do not receive a treatment; they are set up at the edges of the field and/or between your trial strips in order to avoid any potential cross-contamination.

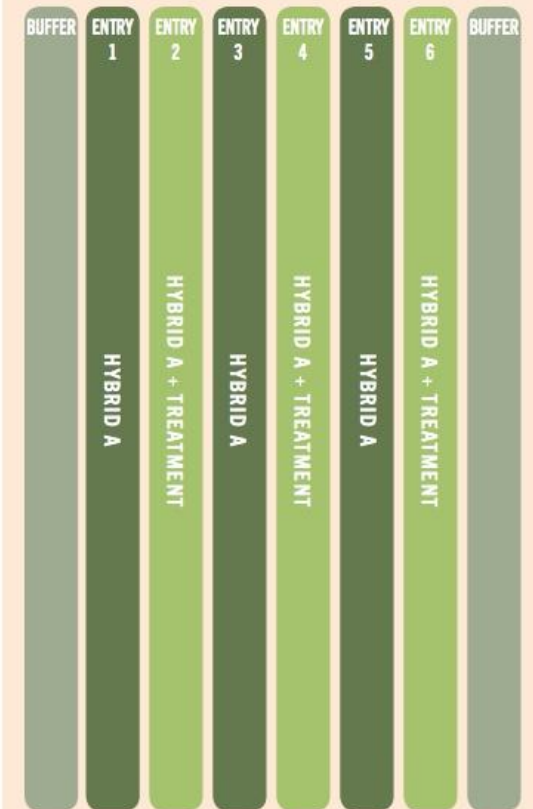
#### Pros

This type of trial typically requires the least amount of effort to get a look at how different treatments, varieties or practices compare.

#### Cons

The downside to running a strip trial might be that you're running the trial on a smaller number of acres due to your field size and strip length.

### STRIP TRIAL





Mais au 60 pouces

Think outside of the row?



Wide Side



**CVI**

Bob Recker  
116 W Schrock Rd  
Waterloo, IA 50701 USA  
Mobile: 319-240-2200

**Cedar Valley Innovation LLC**

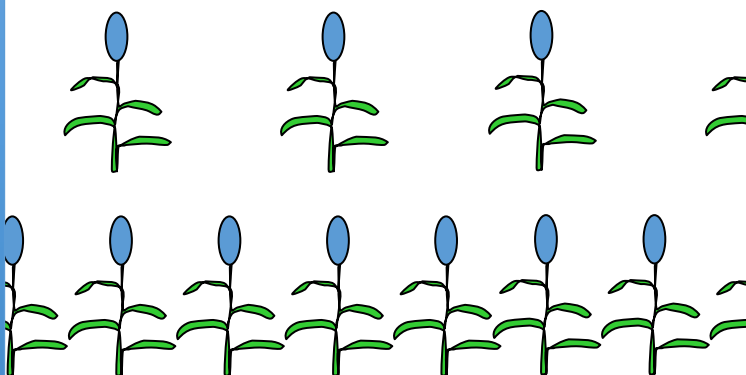
*What's in Your Field?*

e-mail: [cedarvalleyinnovation@gmail.com](mailto:cedarvalleyinnovation@gmail.com)  
[cedarvalleyinnovation.com](http://cedarvalleyinnovation.com)

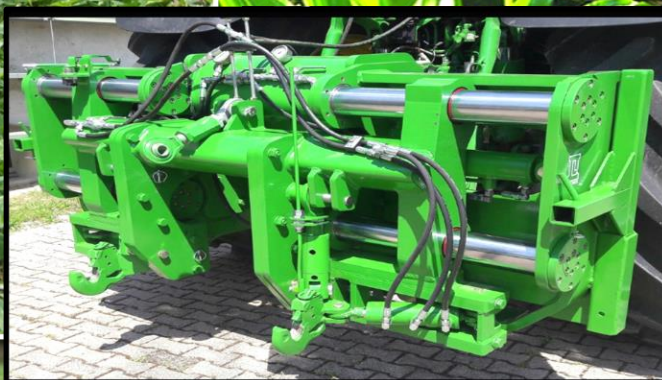




Impact sur la gestion des adventices  
sur le rang











2018

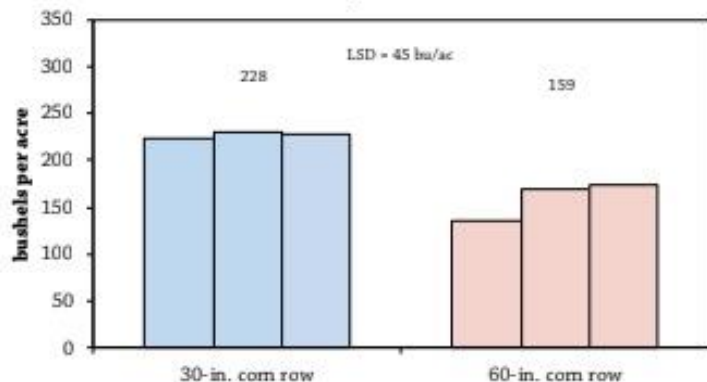
Staff Contact

Stefan Gallans - (515) 232-5661  
stefan@practicalfarmers.org

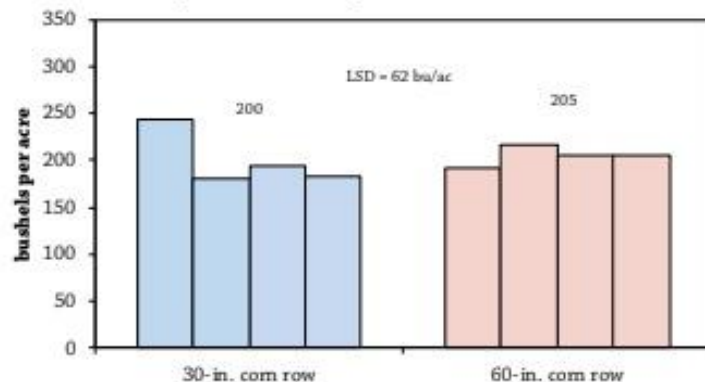
## RESEARCH REPORT

Planting Corn in 60-in. Row-Widths for Interseeding Cover Crops

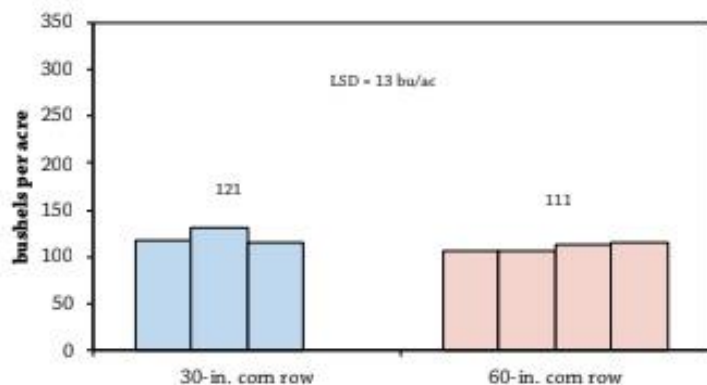
### A. Abels -- Corn yields



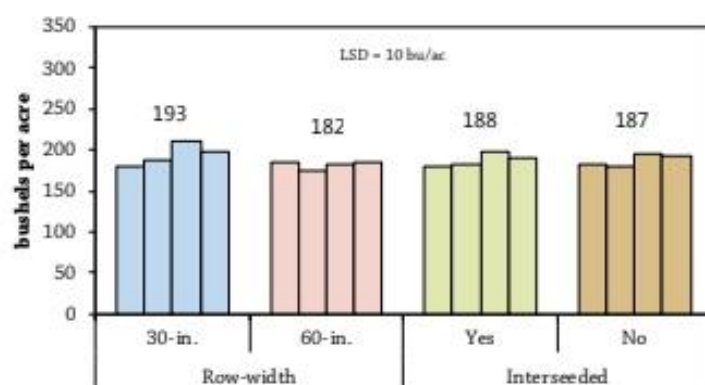
### B. Boyer -- Corn yields



### C. Kessel/Johnson -- Corn yields



### D. Teachout -- Corn yields



Cowpea cover crop growing between corn planted in 60-in. row-width at the Kessel/Johnson location on July 12, 2018. Corn was planted on May 10 and cowpeas were interseeded to the corn on June 7.

**TABLE 2: Biomass and N content of cover crops interseeded to corn near the time of grain harvest.**

RESPONSE	FARM	30-IN. ROWS	60-IN. ROWS	DIFF.	LSD (0.05) <sup>a</sup>
Cover crop biomass (lb/ac)	Abels	3,681	4,225	544	3,177
	Boyer <sup>b</sup>	339	3,870	3,531	–
	Kessel/Johnson	964	3,766	2,802	749
Cover crop N (lb N/ac)	Abels	–	–	–	–
	Boyer <sup>b</sup>	7	100	93	–
	Kessel/Johnson	20	60	40	22

<sup>a</sup> If the difference between row-width treatments is greater than the least significant difference (LSD), the treatments are considered statistically different at the 95% confidence level.

<sup>b</sup> Replicated samples of cover crop biomass were not collected at the Boyer farm which precluded statistical analysis.

**TABLE 3: CO<sub>2</sub>-C burst from soil as determined by the Solvita assay.**

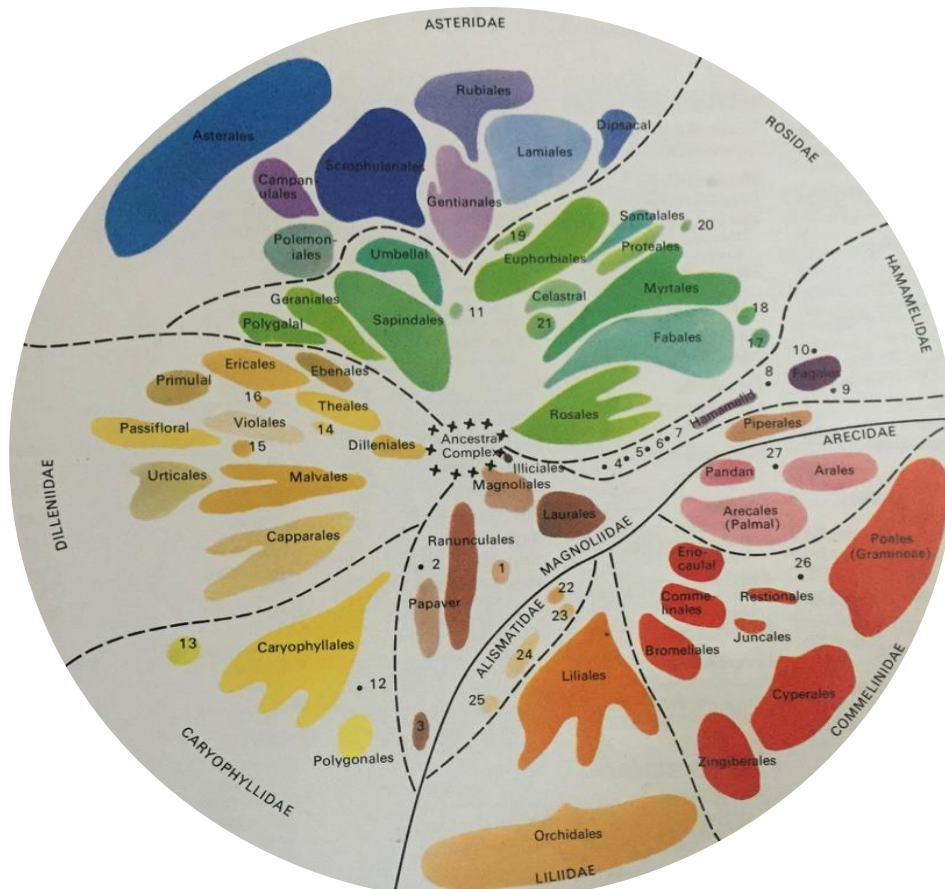
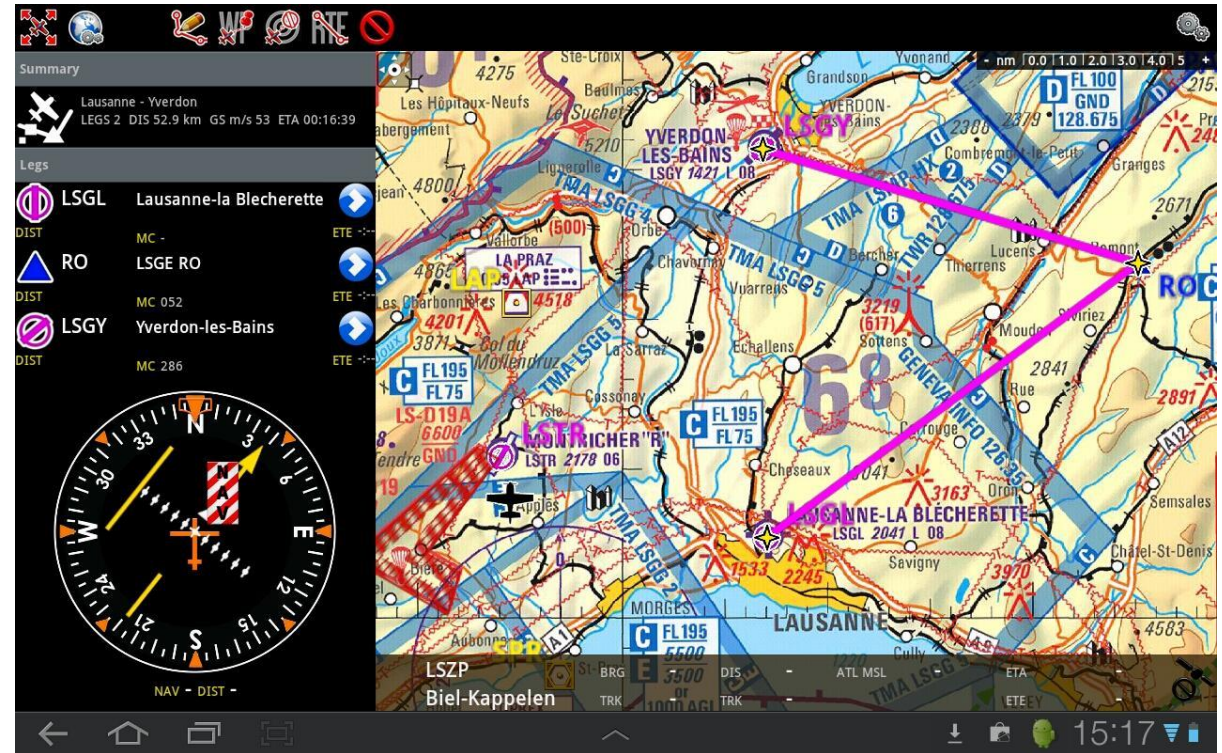
TREATMENT	FARM	CO <sub>2</sub> -C Burst (ppm)			
		30-IN. ROWS	60-IN. ROWS	DIFF.	LSD (0.05) <sup>a</sup>
Row-width	Boyer	130	117	13	13
	Teachout	94	85	9	22
		INTERSEEDING	NO INTERSEEDING	DIFF.	LSD (0.05) <sup>a</sup>
Interseeding	Teachout	87	93	6	22

<sup>a</sup> If the difference between row-width treatments is greater than the least significant difference (LSD), the treatments are considered statistically different at the 95% confidence level.

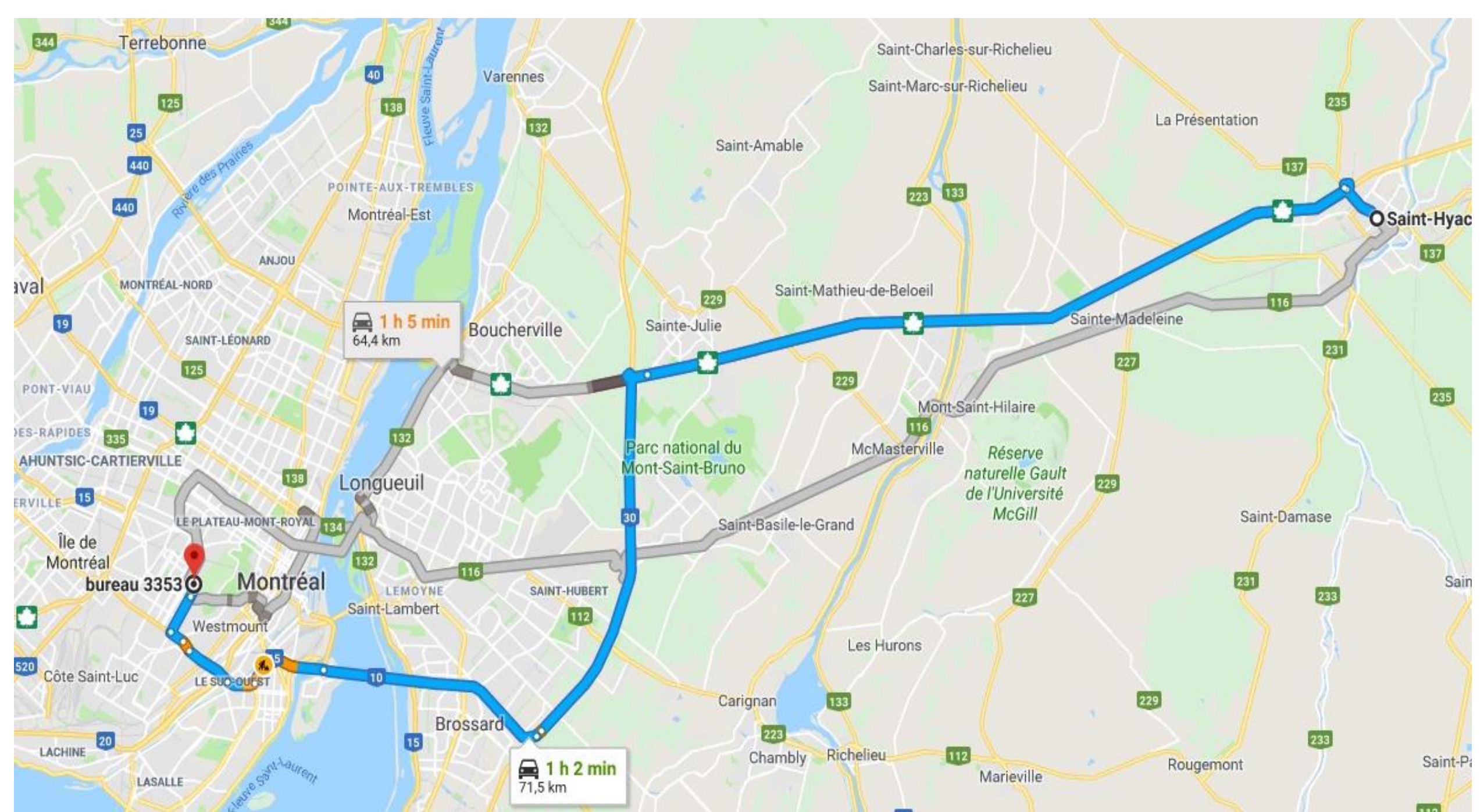
**FIGURE 1.** Corn yields as affected by row-width at **A)** Abels, **B)** Boyer, and **C)** Kessel/Johnson and **D)** as affected by row-width and the presence or absence of interseeded cover crops at Teachout in 2018. Columns represent individual strip yields. Above each set of columns is the treatment mean. By farm, if the difference between the treatment means is greater than the least significant difference (LSD), the treatments are considered statistically different at the 95% confidence level.



# Inflow<sup>®</sup> essence









WEATHER

YIELD

NDVI

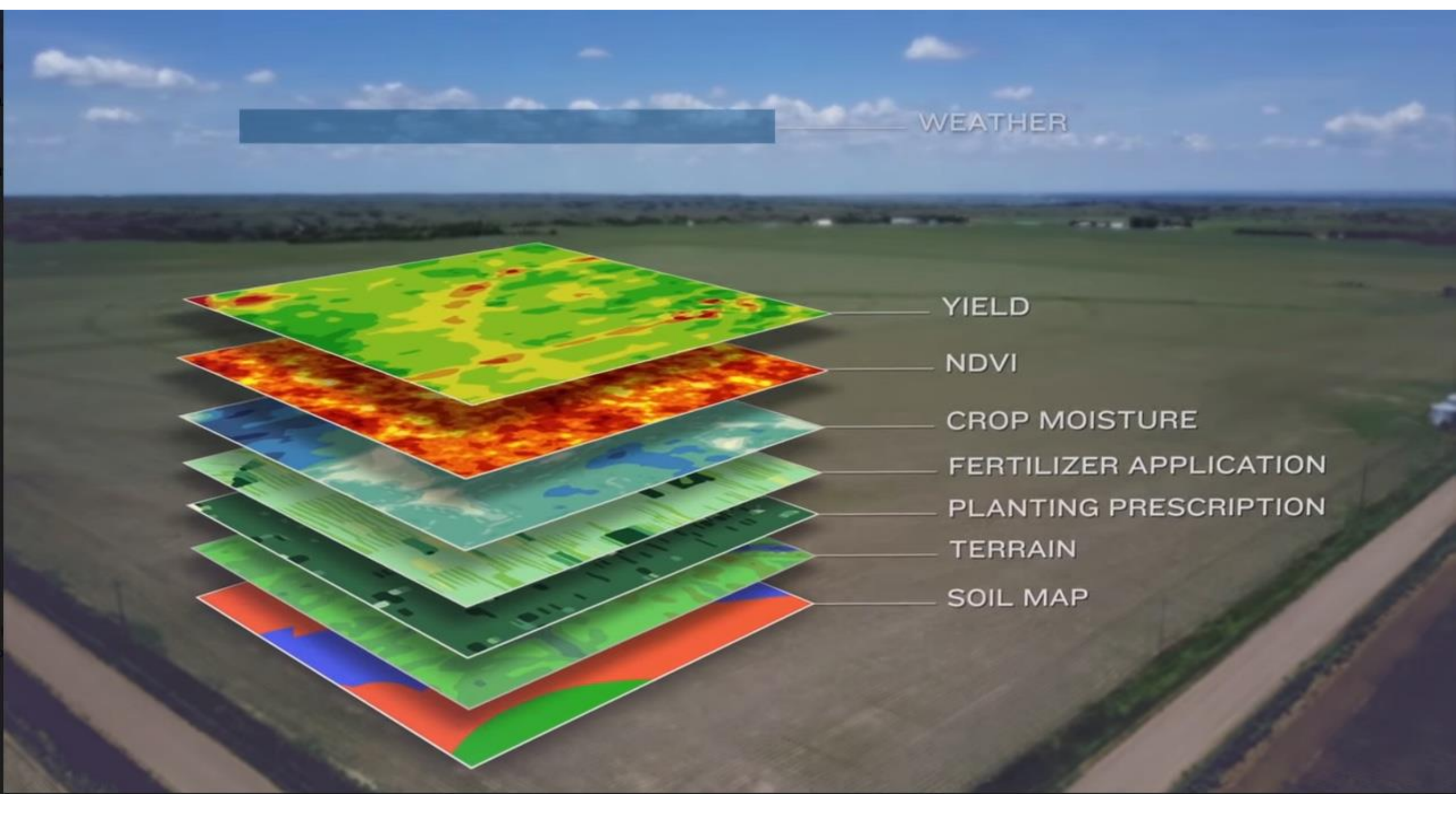
CROP MOISTURE

FERTILIZER APPLICATION

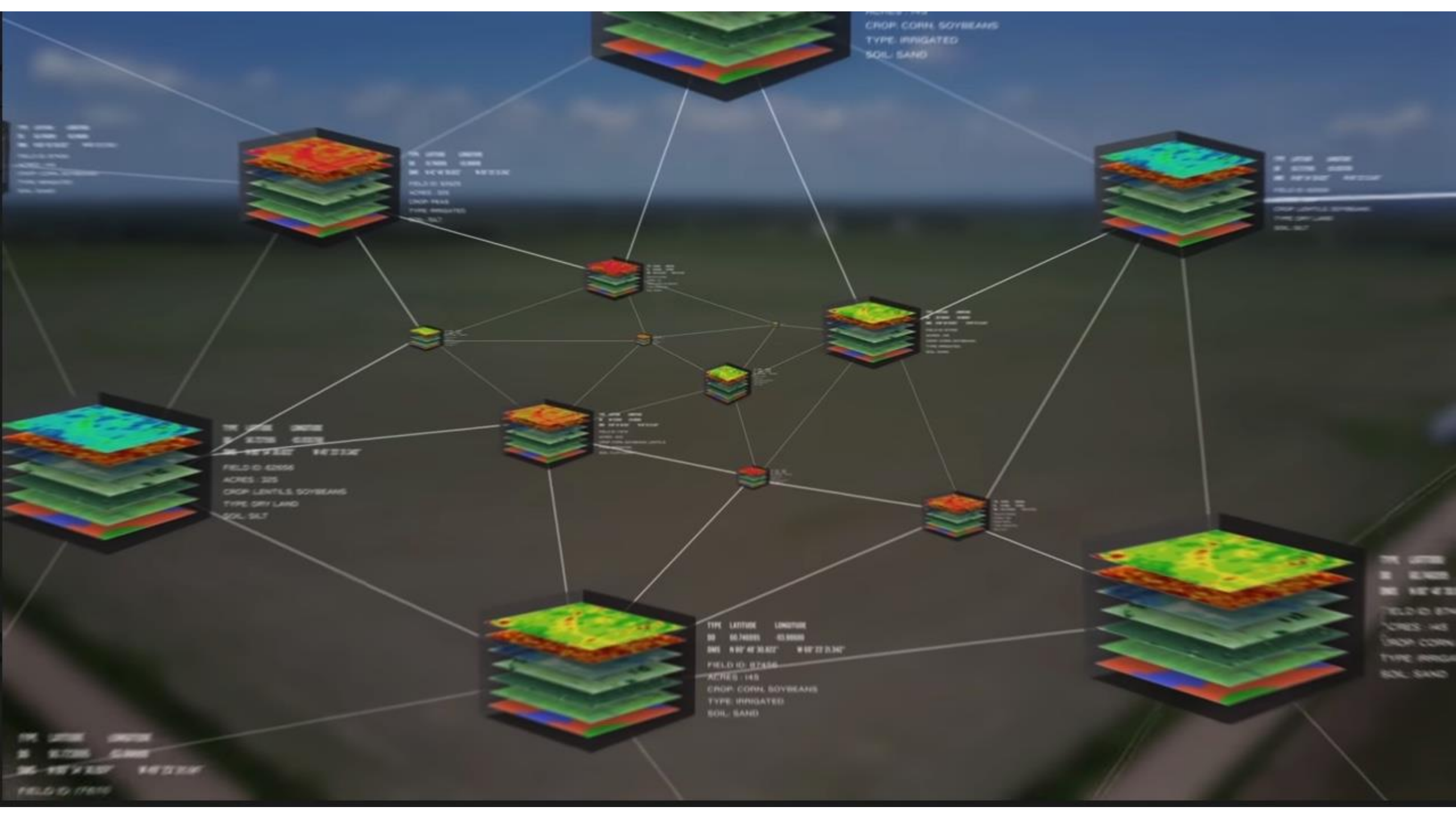
PLANTING PRESCRIPTION

TERRAIN

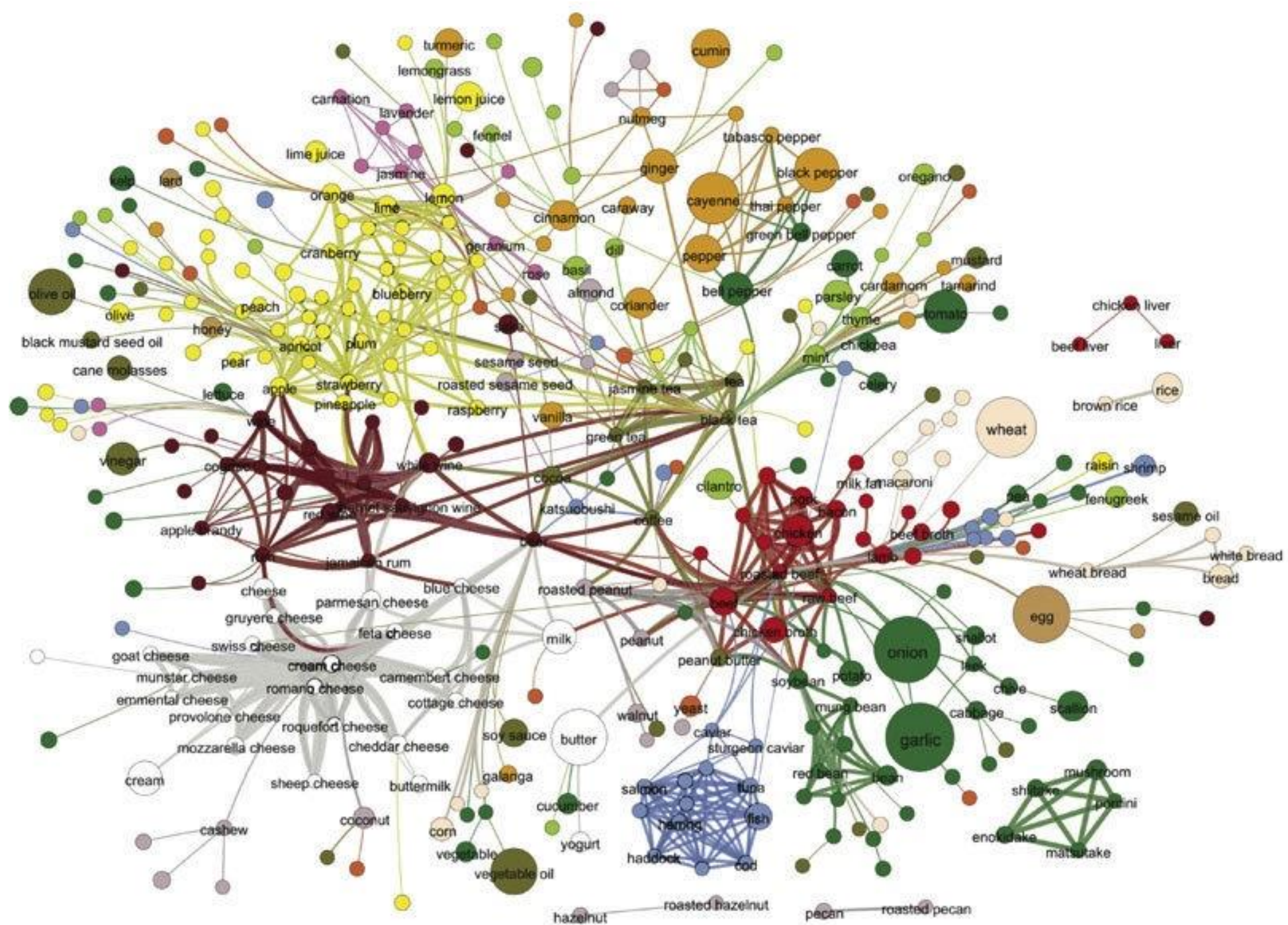
SOIL MAP



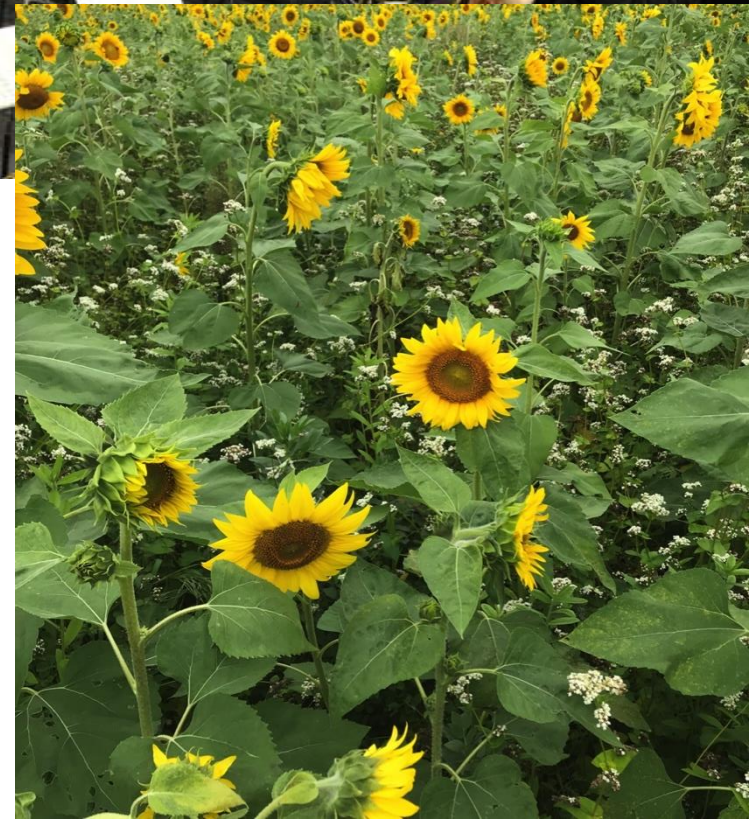
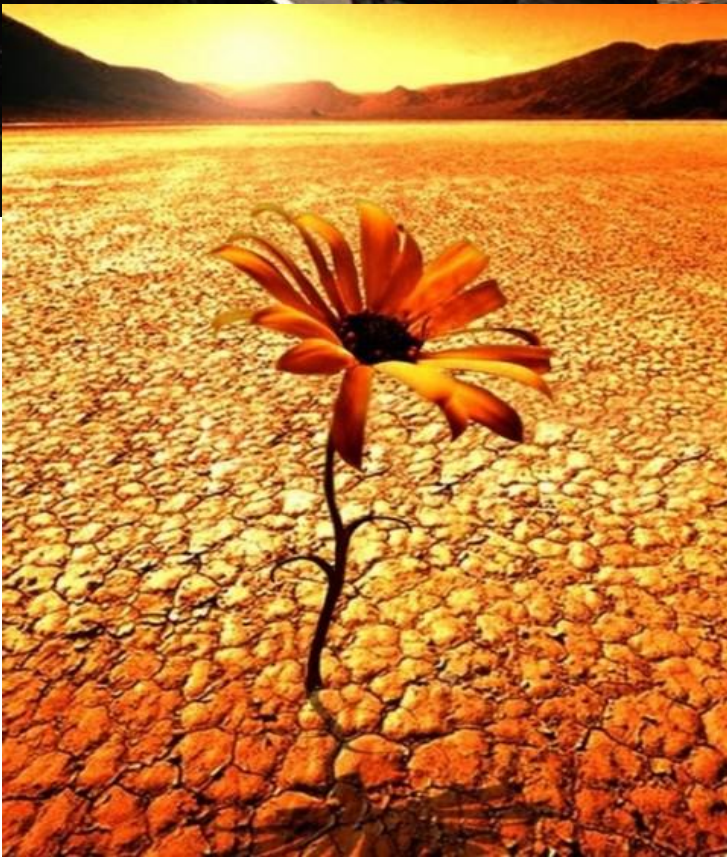
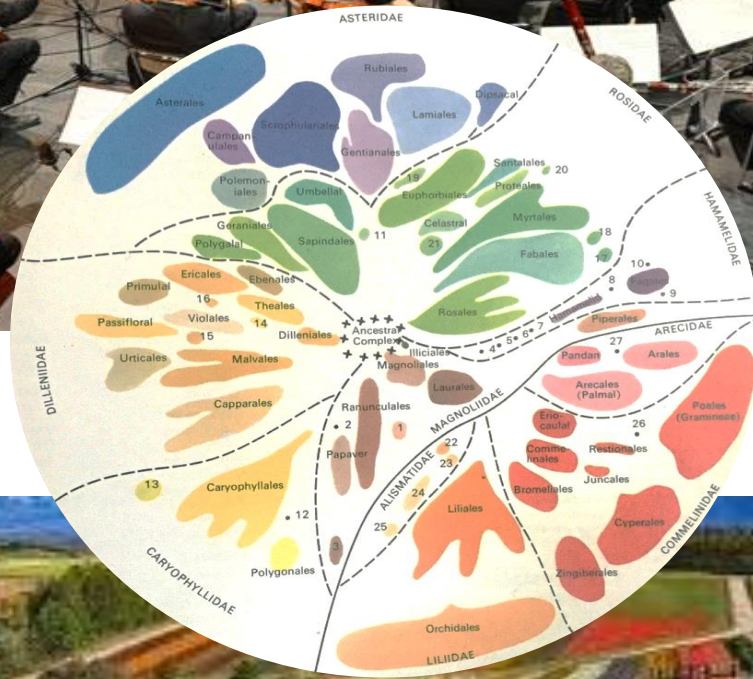
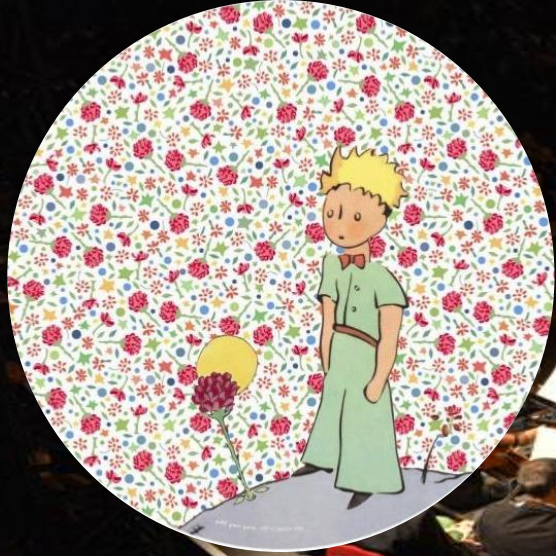














# Dessinez moi ... des agriculteurs agroécologiques & Une route des fleurs

