

# No·till

## On The Plains

### Lessons From Regenerative Agriculture

Regenerative farming is gaining traction. People outside our network of soil health minded farmers and ranchers are taking an interest in how farming practices are impacting the quality of food.

One of the pioneers of that movement is Dr. Daphne Miller, a medical doctor and author of *Farmacology: What Innovative Family Farming Can Teach Us About Health and Healing*. For the past 15 years she has been observing how visionary agriculturalists manage ailments in the plants, animals and soil they steward, linking those practices back to her patients.

Visiting family farms, vineyards, and poultry farms, she examined the parallels between ailments in soil, plants, animals and people. Shining a light on documented examples of connectedness, she transfers that knowledge to the healthcare industry.

One of the parallels she draws between humans and animals is stress. We know that financial stress in agriculture has been a concern through the droughts, flooding and uncertain commodity markets. Ag suicide is on the rise and is impacting rural communities. Highlighting how stressful farming and ranching can be and how that stress effects farms and ranches differently.

As Dr. Miller explains in her book, there are two kinds of stress: chronic low-level stress and episodic stress. Chronic low-level stress is always with us, taxing the adrenal, brain, circulatory and other systems in the body over long periods of time. This can create allostatic

overload and lead to poor health. Episodic stress occurs around specific stressor events and creates a specific stress response. That stress response deals with the stress then dissipates, allowing our bodies to recover between stress episodes. It is the chronic stress that causes the biggest threat to our health. Dr. Miller gives the following suggestions for reducing stress based on her visit to a couple of egg farms:

#### Join the Flock

Citing work done at University of Chicago concluded loneliness causes several negative health effects. The key is the strength of the connection felt to the community. Due to the independent nature of our work it is easy to feel isolated. When looking at farming communities we may be able to use the term “community” broadly. At the 2019 Winter Conference Lance Feikert, No-till on the Plains President, talked about the importance of his peer group. A group of like-minded farmers facing similar challenges across an entire region. They don't see each other in person often, but text daily. These peers supported each other through the hard times, bounce ideas off of each other, and celebrate each other's success. If you don't have a peer group, conferences and workshops are a great place to start. You can find like-minded producers who will both challenge you and support you.

#### Enhance your Behavioral Freedom

We can't always avoid circumstances that make us feel helpless or unimportant. Severe weather, unpredictable prices, and rising input costs can sometimes feel like they are teaming up against us. A holistic approach puts the focus back on things we can impact and allows us to see correlations between our actions and change. It also frames the weather, and price challenges in a different way. Many conference and workshop speakers share



**Dr. Daphne Miller  
to Keynote the 2020  
Winter Conference**

# Lessons From Regenerative Agriculture

their experiences enhancing their behavioral freedom, though they may not use that medical phrase.

## Play Tag and Dust Bath

Farming and ranching can be very physical work. It can also include long days behind the wheel of farm equipment with little to no exercise. One would think these days would average out and those of us in ag don't need more exercise. However, studies show beneficial exercise must be voluntary and enjoyable. Working yourself to exhaustion on the farm doesn't really count as "stress reducing" exercise. Find something fun that you can engage in on a daily basis to reduce stress.

## Get a Good Night's Roost

We can easily fall into the work all night "just for a short time" mentality during harvest, planting or calving seasons. Most farm accidents happen when we get tired and let our guard down. A good night's sleep is important in avoiding accidents on the farm and it is also important in bringing stress levels down. If you have been under chronic stress, rest can be even more important for your adrenal system to heal.

## Put the Right Food in Your Gizzard

Fresh, natural, minimally processed foods are always good choices. When we are busy, and stressed we don't always take the time to make sure we have healthy foods at our fingertips. Luckily you can now find frozen pre-cut vegetables in steamable packages reducing prep

time and increasing shelf-life of perishable foods. Stock up on these healthy options before high stress times to make sure you are giving your body foods that will nourish your body's stress fighting systems.

If you find yourself dealing with chronic stress on the farm or ranch there are resources available to help before it reaches a crisis point. National Farmers Union has set up a website [farmcrisis.nfu.org](http://farmcrisis.nfu.org) that has links to farm support organizations including the Farm Aid Hotline 800-FARM-AID (327-6243) and the National Suicide Hotline 800-273-TALK (8255). If you or someone you know is at the crisis point, please reach out for help.



**Conferences and workshops are great places to get connected to a broader ag community.**

You can learn more about what Dr. Daphne Miller learned about linking human and soil health at the 2020 Winter Conference. She will share her knowledge as a keynote speaker. She will also lead a conversation on farm prosperity while promoting healthy communities. Be part of the conversation at the 2020 Winter Conference!



Visit [notill.org](http://notill.org) for details and registration

# JAN. 27

# Fundamentals of Soil Health Workshop

Hyatt Regency Hotel, Redbud Ballroom, 400 W Waterman St, Wichita, KS 67202

# No·till

On The Plains



## 24<sup>TH</sup> ANNUAL WINTER CONFERENCE

**JAN. 28-29** 2020 WICHITA KANSAS

- Soil biology
- Nutrient management
- Soil & plant tissue testing
- Diverse crop rotations
- Mixing range & crop land management
- Inter-cropping & companion cropping
- Production efficiency-dollars per acre
- Livestock grazing & management



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### JAN. 27 | Fundamentals of Soil Health Workshop

Looking to make the transition and shift your mindset to a more profitable and resilient growing system? Learn the fundamentals of soil health from experienced producers. Learn how improved soil care can break weed and pest cycles, increase water infiltration, decrease input costs and increase profits.

### JAN. 27 | Advanced Concepts in Soil Health Symposium

The over and under of plant nutrition and nutrient exchange. Learn more about the exact timing and plant growth stages for nutrient uptake and supply. Understand how soil organisms trade nutrients with the plant roots. Gain knowledge about how you can enhance the soil biology and increase your profit with John Kempf and Michael Philips.

### JAN. 28-29 | 24<sup>th</sup> Annual Winter Conference

Soil health experts will discuss soil biology, nutrient management, holistic management, diverse crop rotations, hemp as a new crop in a rotation, crop protection, managing range and crop land, livestock grazing and much more.

#### PRICING FOR PROFESSIONALS & PRODUCERS

- Fundamentals Workshop...\$100
- Winter Conference .... \$275
- Advanced Symposium...\$250
- Fundamentals + Winter Conference....\$355
- Winter Conference + Advanced Symposium...\$500

VALID THROUGH DEC. 31.  
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## Winter Conference Ideas Paying Back

Farm profit is something we are all chasing, and one John Heerman has his hands on. Believing in the soil health principles Heerman has jumped in with both feet, eliminating fallow on his eastern Colorado no-till farm 5 years ago. He started by replacing the fallow with cover crops, utilizing the covers for grazing when he could. After hearing a fellow 2018 No-till On the Plains Winter Conference speaker, Derek Axten, talk about companion crops he considered this option as a way to make his fallow replacement more profitable. He knew the time would be right to consider alternative crops as a fellow No-till On the Plains attendee was working on opening different markets in the area.

Heerman is conservative, doing his due diligence to find information to drive his decisions. To avoid huge risks Heerman researched far and wide to find a combination that was proven and could be easily separated. His research found information from Canada on chickpeas/flax and rye/peas. Understanding old information can still hold valuable knowledge, he looked back into agriculture archives and found information on rye/flax companions grown in Nebraska during the 1920s and 1930s.

Armed with considerable research, he started with chickpeas and flax grown together two years ago.

Treating chickpeas as the primary crop and flax as an auxiliary crop. He then followed that companion crop with rye and Austrian peas. He already had a market for the rye, so they were treated as the primary crop and Austrian peas the auxiliary crop. He found no yield drag on the rye when Austrian peas were added, making the Austrian peas a second income on the same acres, he also expects some nutrient benefits from the peas.



**Left: Rye/Austrian pea companion crop.**

**Right: chickpea and flax companion crop.**

Heerman stresses a few key points to consider when deciding what companions to grow. Using your current equipment keeps you from making large capital investments in a new practice. He drills the chickpeas and flax in the same row, using his airseeder. He then uses his Shelbourne-Reynolds stripper header to harvest his companions.



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## Winter Conference Ideas Paying Back

Separating the seed is as important as growing the seed. In order to create the second income stream on the same acres you must be able to separate the seeds. Heerman uses a rotary seed cleaner, found on many farms, to separate his seed. He says the key is to make sure you are growing crops with different seed size. Taking a handful of each seed, mixing them together, then separating them to see how easy, or hard, it will be is a good way to see if your seed size discrepancy is large enough.



**Heerman uses his current equipment to separate companion crop seed to capitalize on the extra income stream from the same acres.**

Another consideration when choosing your companion crops is herbicide labels. Heerman likes the chickpea/flax companion because he can find both of them on many grass herbicides, giving him post-emergent options, if needed. Rye/pea or rye/flax don't have any post-emergent options, however the rye does a good job of keeping fields clean, reducing the need for in-season herbicides. The main thing will be to assess each field for weed pressure before mixing plant classifications.

As with any rotation keep the whole system in mind. In his semi-arid environment managing for carbon in the system is important. He likes the increase in residue the flax brings to the chickpeas, decreasing the chance of bare soils. His companions have also increased diversity and decreased pest problems in



his cash crops. Heerman has also cut out fertilizer on crops that are primarily legume crops and accounts for residual nutrients from those legumes in the following rye crops.

When chasing profit, one strategy is to cut expenses, another is to increase income. Eliminating fallow acres with companion crops allows you to do both. By continuous cropping rye behind the chickpea companions or covers, Heerman basically has no fallow expenses. He converted months that were a significant expense into an income.

***I have basically \$0 to get back to my next rye crop," Heerman states***

The catalyst for this change was being in the right place at the right time (Winter Conference 2018) to hear a fellow regenerative producer talk about his success with companions. What farm-changing idea will you hear at the 2020 Winter Conference? You won't know if you are not there. Register for the Winter Conference today to make sure you don't miss out on your next big idea!



# GET READY FOR WINTER SOIL HEALTH FIELD DAY

Santa Fe Trail Farms  
Windom, Kansas

## Diversify Your System

Ryan Speer  
Regenerative Producer  
Sedgwick, KS

## Winterize your Soil

Jim Johnson  
Noble Research Foundation  
Ardmore, OK

## Bees and Pollinators: Connecting the System

Jorge Garibay  
Regenerative Apiarist  
Sterling, Kansas

## Lunch included!

## Field Tours

- Non-Traditional Bee Keeping
- Cover Crops
- Livestock Grazing
- Soils Examination

DECEMBER 10, 2019

REGISTER NOW  
BEFORE IT FILLS UP!

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## Winter Conference Scholarships Available

Several opportunities for scholarships are available to attendees for the 24th annual No-till on the Plains Winter Conference and pre-Conference workshops.

Full and partial scholarships are available to women in agriculture and to people of color in agriculture. Partial scholarships may be applied to the annual Conference as well as pre-Conference workshops.

A limited number of full scholarships, that includes Conference registration fees, hotel accommodations and some travel costs are a new scholarship category this year. A short written application is required and due by November 15, 2019.

These scholarships are made possible by two of our generous Conference sponsors, The Ceres Trust and the #NoRegrets Initiative.

Scholarships are also available to Kansas Conservation district supervisors, district employees and Kansas producers that are first-time attendees to the Conference. Funding for these scholarships is provided through the Kansas Department of Agriculture-Division of Conservation. These scholarships are available by applying at the local Kansas Conservation district offices, located in all 105 Kansas counties.



Discounted student rate registrations are also available to any active full time student. Registration for the two-day Winter Conference for student is only \$50. Additionally, students may attend the Fundamentals of Soil Health Workshop for only \$60. Student registration is available [HERE](#).

Please share this information with others in your network and encourage eligible parties to apply. Please contact No-till on the Plains with any questions at [info@notill.org](mailto:info@notill.org), or by calling 785-210-4549.

# Upcoming Events



**SAVE THE DATE!**

**Winter Conference - January 28-29, 2020**  
**Fundamentals Workshop - January 27, 2020**  
**Advanced Concepts Symposium - Jan. 27, 2020**

**No-till On the Plains & The Nature Conservancy**  
**Soil Health Field Day - Get Ready For Winter**  
December 10, 2019  
Santa Fe Trail Farm, Windom, KS

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Initiative

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## Advanced Concepts in Soil Health Symposium

A balanced system functions infinitely without intervention. Most farms and ranches are not properly balanced but can be managed to improve ecosystem functions. Learn how to manage the above and below ground elements of your ecosystems to enhance soil health and increase profits.

Featuring

**John Kempf**  
Advancing Eco Agriculture  
&

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