

# No·till

On The Plains

## Fire Back in 2020

There were many important messages that Jared Estes shared with the crowd as the opening speaker at the 2020 Winter Conference. Estes didn't tell the audience not to let anything get you down, for he understands all too well that circumstances in life beyond your control can send you into a tailspin that you cannot escape. Not sugar coating his experience, Estes illustrated his struggles with in-your-face reality and well-timed humor to teach us how to Fire Back.

Six months after Estes married his high school sweetheart, Paige, she was killed in a fiery car crash that left him with severe burns over much of his body. Undergoing more than fifty surgeries over three years he learned lessons that he turned into weapons to fight his way out of darkness and despair, what he calls his dark season.

*"Personal demons know us better than anyone. If you never face them down they will destroy you."*  
*Jared Estes - Opening Keynote 2020*

Fortunately, most of us will never know the physical challenges Estes endured. In agriculture we think about seasons traditionally, but to be honest we all have seasons of darkness and light. Tough times with ag markets and weather can take the light away, plunging us into a dark season with no end marked on the calendar. Uncertainty in trade and now a global shutdown for Covid-19 has many standing at the line between light and dark. How we will act during these times of uncertainty depends on the lessons we learn in life. Estes shared some lessons he learned and perhaps we can use his insight in the season we find ourselves in now.

Estes talked about fear. It is probably something many people are experiencing right now; fear of becoming sick, fear of losing loved ones, fear of financial ruin,



Lance Feikert Introduces Jared Estes as the opening speaker at the 2020 Winter Conference.

fear of running out of toilet paper. "Personal demons know us better than anyone. If you never face them down they will destroy you," Estes said. You fight back against fear and personal demons just like every other pest on the farm. You get to know it and keep it at a manageable level. Applying the four soil health principles to every situation can be a great philosophy: Diversify, keep feeding the solution, find something to protect your resource, and don't cause disturbance that will flair other problems. This can be applied to death, health, relationships, and other common fears.

Estes spoke of perspective twice in his presentation. First, as he was recalling the day he woke from his coma and asked about his wife. "You get used to the way people look at you. I didn't recognize the people closest to me because of the way they looked at me." Most of us will mercifully never know the extent of his insight here. Though it is true that in our communities when we go against the grain people look at us different. As we move towards farming in nature's image morning coffee shop talk changes, and people's opinions of us may change. We may get to the point we don't recognize our neighbors because of the way they look at us. Sometimes seeing

your neighbors look at you differently is hard. Replace those neighbors with a support system that sees the world through the same lenses you do; Neighbors that may be counties, states or even countries away, not across the fence. Forgive those at the coffee shop for they know not what they do, to you and the soil, and look for your support system elsewhere.



Jared Estes tells the audience, "Perspective is both a gift and a burden."

Then, Estes explained how we can use perspective as a weapon to be used to fight back in dark seasons. Perspective is both a gift and a burden according to Estes. "To receive the gift of perspective you must go through something hard and come out the other side. You can't stay a victim if you have perspective." Facing the low or no profit margins of today's farm economy is hard, and scary. Once you have a perspective of soil health you can use that to start facing your demons, and changing farming practices to make your farm profitable and resilient. The burden comes by not being able to return to your previous farming methods with the uninformed bliss you had before. Once you understand how farming practices impact soil function and how that impacts profits it will be harder to conform to the "culturally approved practices" lenders, ag professionals and crop insurance agencies favor.

Probably the most profound lesson Estes shared was at the end of the day sometimes we just have to let go. Estes realized he was no longer the same person he was before the accident. He grieved for Paige and

he grieved for the man he was with Paige. He knows he can learn lessons from the person he was when he was with Paige, but he can no longer be him. He is forever changed, he must find a new normal, and let his old self go. In some ways, not as profound as his, we all have a degree of letting go to do. We cannot be the farmers we were before we believed in soil health and regenerative practices. We can't unlearn about soil erosion or the actions we took that created it. Like Estes we can learn from our past selves, our farm's history, and use that knowledge to stay in "seasons of light".

As we are looking forward to a new spring season and start spending time in our fields we will see many of nature's creatures that help us. One of nature's pest controls are spiders. Without leaving the old exoskeleton they have outgrown behind they would die. Butterflies take on a more dramatic change as they grow into beautifully colored flying creatures that help pollinate. When you see these field friends remember the lessons that Estes talked about. No matter what degree of changing you experience through your cycle of "seasons" the important thing is you grow. Grow in perspective, grow to know your fears, and grow to Fire Back.



## Our Soil, Ourselves

When talking about regenerative agriculture we often preach to the choir. While it may make us feel validated, talking to those outside of regenerative agriculture spreads our message farther by inspiring others who can spread the message far beyond our influence. Dr. Miller, a medical doctor from California who served as the general session speaker at the 2020 Winter Conference, is one of those outside our circle who is spreading the message of soil health to an expanded audience.

Recounting her own family's failed farming experience, she is not completely disconnected from agriculture. Emotion crept into her voice as she recalled how her parents tried to farm in rural New York state and how using a high disturbance system crushed their dreams, and devastated the community. Then, she started calling us names. In preparation for her talk she reflected on what kind of person she would find at a No-till on the Plains conference. Dr. Miller expected to find "mavericks." A fitting assessment as mavericks are unorthodox and independent-minded people. Dr. Miller eventually refined her name calling of regenerative producers to "healers" who think differently, and identified four ideas that regenerative healers hold as basic philosophies whether they are ministering to soil or humans.

First, healers think in terms of interconnectedness, not liner points. "Regenerative producers think in terms of webs vs. lines," Dr. Miller told the group. Understanding that all things are connected and one action influences others is a key concept when planning regenerative systems. The test and replace method of medicine or farming are liner thought patterns. She shared insight gained from visiting a regenerative vegetable farmer. This farmer told her the test and replace method didn't improve carbon or health of his products. It was when he considered how all things were connected and managed for soil health he saw improvements. This aligns with the resurgence of holistic medicine she sees across the country.

The second concept for healers is valuing diversity, not uniformity. Siting a study from Germany called the FARM EFFECT, kids growing up on sustainable

farms were healthier than urban counterparts. The thought was exposure to a diversity of microbes increased natural immunity. She went on to explain in the human body when microbe diversity is low and pathogens show up, we experience an outbreak of the pathogenic microbe. When that same pathogen shows up to a diverse community of microbes the chances for an outbreak are severely decreased. She attributed the containment of the outbreak to the competition of the microbes. Transferring that idea to our farms would mean outbreaks of weeds, insects, or diseases can be contained by increasing diversity. This concept has been affirmed by many producers who are using intense rotations to minimize weed populations and pollinator strips to increase the presence of predator species.



Dr. Daphne Milles addresses the crowd at Winter Conference

When considering practices we should be asking if they increase or decrease all the different "microbe" populations. Which ties into the third concept: Dynamic Balance, not eradication. Dynamic balance sounds a lot like integrated pest management. Those practicing integrated pest management understand the difference between when pests become too much of a problem and require treatment, and seeing a few pests in a field. Dr. Bob Gatenby, MD, who is using this concept for new cancer treatment protocols focused on the minimum dose required to keep cancer in check stated, "The biggest problem with implementing this strategy will require overcoming psychological and emotional barriers in patients and physicians." We often have to overcome psychological and emotional barriers to implement a regenerative ag production model or new ag practices that allows biological communities to come back into balance.

## Our Soil, Ourselves Continued

New medical or agriculture models should include intelligent tinkering, a phrase coined by Aldo Leopold, instead of conquest. Using the example of the high number of back surgeries performed in the U.S. with limited results she asks why they are continuing to be used. Replies to that question include, "we have always done them," and "we are incentivized to perform the procedure." It seems the struggles with change are not unique to agriculture, nor are the excuses to stay the same. Using intelligent tinkering, or simply put "working with nature", we can move beyond the emotional tie to past decisions and start making better choices that harness the power of nature.

Dr. Miller chuckled as she started to give her tools for being health ambassadors. "I always feel dumb telling farmers how to do this. You know better than I do," she said to a forgiving crowd who chuckled with her. The main tools needed for health ambassadors include knee pads, to get down on your knees and look at the soil, a package of white cotton underwear for the Soil Your Undies experiment, and pictures of the cross section of soil, the human gut and skin to illustrate how our soils are similar to ourselves. "When nature finds a good system that works, it reuses it in different places," she said.

Like nature we can reuse a good system to increase health in all areas. Think in terms of connectedness, value diversity, and keep dynamic balance. If you tinker do it intelligently and use your tools wisely. As we live through a historic global pandemic let us remember these lessons to keep our soils and ourselves healthy.



Dr. Daphne Miller signs autographs in her book Farmacology and visits with producers at the 2020 Winter Conference.



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# Four Years of Mistakes?

by Heather Coates

On a snowy afternoon at the No-till on the Plains 2020 Winter Conference, attendees gathered to listen to regenerative farmer Jason Mauck's talk entitled, "Four Years of Mistakes." The jury is still out as to whether this was a good title for the talk. Because what they heard was a lot of success and innovation that is helping to take farming into the future.

Mauck, a young farmer from Gaston, Indiana, grew up on his family's farm. He always knew he wanted to have farming in his life, but he didn't know if he wanted to farm full time. In college, he studied business and marketing, and dreamt of being an entrepreneur. After a few years of desk jobs, he started a landscaping business to return to the outside. Farming was something he did on the side with his father.



Corn and beans grown together on Constant Canopy.

When tragedy struck the Mauck family, Jason's father unexpectedly died of pancreatic cancer, Mauck found himself with a life he hadn't planned. He was thrown into farming full time, and the person he most wanted to farm with was no longer at his side.

Perhaps this unusual path into farming has made Mauck the unconventional, and successful, farmer he is today.

The Mauck family farm had been run for generations as a conventional farm. Mauck tried that for a while, but it wasn't working for him. As a lover of nature, he found conventional farming disconnected from that system. He was also uncertain about the future it offered. The life of a conventional farmer seemed to be one of chasing larger yields, by increasingly more work and longer hours, without much increase in pay or quality of life. He said he felt like a hamster on a wheel, running and running but never getting anywhere.

He knew that if the farming life was going to work for him, he needed to get off the wheel and start walking independently. He started his journey by asking questions.

As a young father, who had lost his own father too early, Mauck understands that life is short and precious. He wants to spend as much time as he can with his wife and two young sons. He began to ask himself what he could learn and do today that would buy him more time tomorrow? Was it possible to lighten his load by working more closely with nature? How could he delegate some of his jobs to nature?

Mauck might be working less, but he doesn't seem like a guy who is slowing down. One of the first things you notice is that he is a man with a busy mind and a lot of ideas. One of his favorite things to do is to brainstorm his ideas on a chalkboard in his kitchen. He said it was a "blessing" his family didn't trust him with the checkbook when he first set out to make changes. He's sure he would have invested in and been stuck with equipment that ultimately wouldn't meet his needs.

Instead he was forced to start small with few expenses. He created an incubator farm, Canopy Farms, where he tries out a lot of ideas and sees what works. He compares what he does to playing poker - you throw out the cards that aren't serving your needs. On one acre of land, that first year, he had up to ten experiments going. The successful ideas he kept. The bad ones, he let go. It takes him anywhere from three to five years to move his successful experiments to the larger farm.

This is where, as the title of his talk implied, Mauck spent four years making mistakes. But he also had successes. Conference attendees heard about and saw plenty of stories of success. They were given lots of ideas to take home to their own part of the world.

First, Mauck applied what he knew about landscaping to his farming methods. What would happen if he copied the pattern of a flower bed and

planted different kinds of plants together? What would happen if instead of growing one crop at a time, he grew two, but had them mature at different times? Isn't the biggest waste in agriculture the space between the rows, he wondered?

What he ultimately found at Canopy Farms was a lot of success with relay cropping. Mauck has experimented with lots of pairings - growing wheat



Jason Mauck speaks at the 2020 Winter Conference in Wichita.

and soybeans together, soybeans and corn, winter wheat and radishes.

He works to plant each crop at the right time to take advantage of the finite amounts of nutrients and water in the soil.

For example, when one plant

is further towards the end of its lifecycle, needing less nutrients, the second crop will be a juvenile eating up the nutrients and growing at a rapid rate. Additional benefits include the two crops acting as weed suppressors for one another, and the taller plant providing shade for the younger ones. He has found that, "A lot of times in monocrops, it's the thin crops that weeds win out on, that you're just constantly fighting and pumping money into. Those two crops together keep both of them more vigorous, which fights off weeds."

Mauck reports a "soothing feeling" when he is able to use plants to manage things, allowing nature to fight nature. He much prefers letting nature do the work, reducing his own labor. He also enjoys spending less money on inputs for the crop.

Another method where Mauck has found success is to widen the rows of his crops. Less rows means he plants less seed, but it doesn't necessarily mean less income. He has found that when his plants get more sunlight, they are more productive, producing more grain per plant. Maximizing their access to the sun, Mauck has found, allows seeds to more fully express their genetic potential.

When asked what he's noticed about the overall yields of relay cropping, Mauck responded by saying that relay cropping has positively changed the soil structure in the fields. His relay crops are more resilient to weather than his conventional crops. In the past year, he reports, "we had our conventional soybeans, to be blunt, get its butt kicked by the relay crop. It was fun seeing that play out."

When examining the success of no-till farming, relay farming, cover crops, whatever unconventional methods you are using, Mauck urges farmers to pay attention to the costs on both sides of the ledger. Maybe using less seed means yields are down, but what is the big picture? If you use things like relay cropping, did you purchase less fertilizers and chemicals? What's the final number at the bottom of the ledger? Mauck's best ideas are the ones where he's doing less of the work and making similar if not more income.

What's next for Mauck? What do the next four years of mistakes look like? He hopes to introduce more animals with their natural fertilizers to his fields. During his talk, he showed photos of chicken tractors that are being built at his farm. These tractors will be pulled between the corn for the chickens to eat weeds and distribute their manure.

He also plans to take more advantage of the natural fertility (manure) of the 25,000 hogs on his farm. He



has already been using the manure's fertile energy by utilizing as much of the nutrient value for his crops, without losing the value to runoff. Currently, he is working with a company to build a facility that will allow him to process the high amounts of manure coming from his hogs (and the hogs of his neighbors) into biochar. He hopes the facility will be running by the end of the year.

A happy byproduct of biochar is potable water. Mauck recently caused a stir, when his very popular Twitter feed (Jason Mauck@jasonmauck1) showed a video of him drinking water that had been separated from manure. When asked what he would do with the water, he said he may use it for irrigation. But because it is potable, it can also be safely released in the waterways.

This innovation is very important to him. He doesn't know what made his father sick, but following his father's death, he also lost his uncle to brain cancer. His best friend's father and a close friend, all who lived in his community, also died of cancer. "I don't know what's going on," he said, "but I'm really emotionally tied to water quality."

These types of ideas and innovations are why Mauck has become a popular presenter at conferences and on social media. He said he is willing to sacrifice precious time with his family, because he sees such a need for farmers like him to have the space and time to share with each other. When he first started farming, he would go talk to his neighbors to get advice. He doesn't do that as much anymore. Instead, he looks forward to coming to conferences sponsored by organizations like No-till on the Plains, because of the new ideas he can learn from like-minded farmers. He hopes that others use his ideas, build on them, and pass them on. Mauck believes this free sharing of ideas is crucial for the future of farming.

After finishing his presentation, detailing his four years of mistakes and successes, the thought that Mauck wanted his listeners to leave with was this: "There are no answers, we've just got to start experimenting and figure out how we can have more time with our family."

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# From Uganda to Kansas and Back Again

by Heather Coates

One of the highlights each year at the No-till on the Plains Winter Conference is the chance for regenerative farmers to learn, collaborate and share with one another. Farmers come from across the country to find others like themselves who are focused on soil health. This year, Sylvia Namukasa, a small farm coordinator and educator from Uganda, was in attendance. She had a great time sharing in the learning and collaboration, and took home with her new ideas and inspiration for small farmers in Uganda.

Namukasa was able to attend the conference in Wichita, KS after receiving a scholarship from No-till on the Plains. This scholarship program has been part of the annual conference for three years. This year, including Namukasa, there were 25 scholarship recipients. Most of the recipients received partial scholarships, which paid for their registration fee to the conference. Namukasa was awarded a full scholarship, based on her essay submission, which also included her travel and lodging.

Starting three years ago, the groups funding the scholarships made a push to award them especially to women and/or people of color, two historically underrepresented groups in agriculture and at the conference.



**2020 Winter Conference Scholarship winners came from around the world due to the generous support of sponsors including #NoRegrets Initiative.**

During the prior two years, only partial scholarships were offered. When the sponsors learned that people weren't applying because it was still too

financially difficult, they made the decision to offer some full scholarships as well. The full scholarship paid for travel and lodging in addition to the registration fee. The full scholarships would only be offered to people for whom agriculture is a major part of their income. Namukasa was one of the first ever recipients of a full scholarship.

So who is this young Ugandan woman who works in agriculture and how did she get connected to No-till on the Plains?

Namukasa was born and raised in a rural township in the Greater Masaka region of Uganda. She is the oldest of 8 children. Her parents, who worked as small farmers, were somehow able to find the money to send her to university. She was the first female in her area to receive a college degree. Namukasa said that neighboring parents would send their daughters to her house just so they could see and touch her graduation gown. Since that time, other young women have followed in her footsteps.

At university, Namukasa studied Environmental Management. This was a newer field of study in Uganda, and her parents were worried; they urged her to go into teaching instead. As a teacher, she was sure to find good employment. Namusaka had other ideas. Graduating in her chosen field, she returned home with an idea of how to use her knowledge to help the people where she grew up.

Today, Namukasa is the Founder and Executive Director of an organization called Kyempapu (Kirinda Youth Environmental Protection and Poverty Alleviation Program Uganda, [www.kyempapu.org](http://www.kyempapu.org)) a grassroots non-profit that is committed to community development, environmental management, and poverty alleviation. One of the groups she works most closely with is the area's small farmers, acting as a hub, an organizer and a source of education.

Namukasa became acquainted with the No-till On the Plains through her relationship with Rosanna Bauman, whose family owns Bauman's Cedar Valley

Farms in Garnett, KS. The two met in Germany at a conference for rural youth leaders. They stayed in touch because of their interest in how the other farmed. Namukasa was especially interested in the Bauman family's work in pasture raising animals. Bauman was interested in how much Namukasa was able to accomplish on a shoestring budget.

Since their meeting, the relationship between these two young farmers has blossomed into a partnership selling Ugandan coffee in the United States. No-till on the Plains organizers learned of this relationship only after awarding Namukasa the full scholarship. Their coffee was served this year at the Winter Conference.

Bauman introduced Namukasa to no-till farming during a visit to the Bauman's farm in 2018. During her stay in Kansas, Namukasa had the opportunity



Rosanna Bauman and Sylvia Namukasa reconnect at the 2020 No-till on the Plains Winter Conference.

for their job. So many of the farmers in her home community were farming because they lacked opportunity. But here, in this community in Kansas, they were farming because they wanted to and they seemed to love it. This amazed and inspired her.

Namukasa learned about the No-till on the Plains Winter Conference and the scholarship opportunity from the No-till on the Plains newsletter. She applied immediately. She wanted to learn more about the science of soil health - valuing and treating the soil well is important no matter where you live, she says. Attending the conference would allow her to expand her farming network and learn more about regenerative farming from some of the

to attend the field day at the regenerative farm of Darin and Nancy Williams in Waverly, KS. This was also her introduction to the No-till on the Plains organization. Namukasa remembers meeting the farmers and being deeply impressed by the passion they had

best farmers in the world.

Namukasa says attending No-till on the Plains Winter Conference was invaluable, providing her with information urgently needed today in Uganda. When talking about her home country, Namukasa will tell you that Uganda has some of the best soil in the world. It is currently in jeopardy, however, due to the recent introduction of chemical spraying. She believes the farmers don't actually know what is in the sprayers or how the chemicals are affecting their land. It is also economically difficult to take another route.

Namukasa believes if Ugandan farmers could have access to information like that offered by No-till on the Plains, it would provide them alternatives to the sprays and a different path forward into the future. She has personally been enlightened and inspired by No-till on the Plains. It is her hope that the farmers she works with in Uganda will be enlightened and inspired as well.

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