

Lessons Learned From Specialty Crop Growers Across Kansas

Produced by the Kansas Rural Center October 2018

Introduction

Consumers are seeking more locally grown food, and aspiring and current growers are searching to see and learn from the success stories of experienced growers. By telling the stories of successful operations, and coordinating connections between beginning and experienced specialty crop growers (fruit and vegetable producers), the likelihood of new operations starting as well as the scaling up of smaller operations increases. At Kansas Rural Center (KRC) meetings across the state, we heard time and time again that farmers need to see the successes of other farmers and learn from their experiences in order to try it themselves.

Better understanding various production and management methods for key vegetables and fruits well-suited to Kansas regions can lead to more successful specialty crop farms.



The Kansas Rural Center gathered farmers, distributors, consumers and others at meetings across the state to ask about the status of local food in their communities.

The need for more information and sharing successes spurred KRC to develop the "Linking Experienced and Beginning Kansas Specialty Crop Farmers to Share Information for Establishing Successful Specialty Crop Enterprises" grant project, funded by a USDA Specialty Crop Block Grant administered by the Kansas Department of Agriculture (KDA) during 2017 to 2018.

As part of the project, KRC conducted a series of workshops in five communities throughout Kansas held in the first quarter of 2018. KRC also hosted a one-day learning circle of five beginning and five experienced specialty crop farmers, to facilitate discussion of challenges, barriers and needs experienced by the growers, as well as opportunities identified. Visits to each of the experienced farmers' farms (accompanied by the beginning farmers when possible) were made to capture in-depth interviews, which are shared here as farmer profiles.



Dan Kuhn, owner and operator of Depot Market near Courtland, Kansas, grows specialty crops on a large scale. This photo shows the farm's melon field in June 2018. The melons are planted on black plastic and broken up with rows of wheat as a windbreak.

This collection provides information on production and management experience, and showcases farmer profiles of five experienced specialty crop farms across the state. It also includes identified opportunities and concerns surfaced by the learning circle.

The interviews and writing for this collection were completed by Jennifer Kongs, cofounder of Bark Media (www.barkmediaco.com).

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Meet the Specialty Crop Farmers

Experienced Farmers:

Dave Svaty of Svaty's Produce; Kanopolis: Dave and his wife, Connie, raise bucket calves, Holstein beef and sheep. They grow vegetables under high tunnels (they lost one high tunnel last year, but they have rebuilt it). High tunnels and row cover have been important in dealing with spray drift issues on their crops. Svaty built an on-farm retail store to sell produce and meat year-round. Svaty farms with his son, Caleb, too, although he works full-time off-farm on wind turbines. The family sells mostly at farmers markets in Salina, and Svaty noted the foot traffic at his on-farm store was much stronger in summer than in winter months.

Frank Gieringer of Gieringer's Orchard; Edgerton: Frank, his wife and, for the last 5 years, his son, operate a U-Pick orchard in a rural area that is near large metropolitan areas. Frank is a first-generation farmer who started by raising hogs after he completed high school. Fifteen years ago, the family put in an orchard and then added a high tunnel, which grew into six, growing mostly grafted tomatoes predominantly. The U-Pick/agritourism efforts include plasticulture strawberries; raspberries and thornless blackberries; peaches; pumpkins; and soon apples. He also raises conventional corn, soybeans and cattle, but 2017 was the first year the specialty crop expansion beat out the conventional crops in net income.

Chris and Christi Janssen: The Janssens are in their 10th year growing specialty crops. They started after becoming unexpectedly unemployed, and opened with two high tunnels growing mostly tomatoes. They now have three high tunnels. The farm is unique in that it is entirely located within the city limits of Scandia, a small town, on abandoned lots the couple purchased. They now grow a diversity of crops year-round, and sell at multiple farmers markets and through a CSA delivery service. The couple estimates their sales are about half wholesale and half retail, and they are traveling five days a week for markets and deliveries. "Being by a population makes specialty crops much easier," said Christi. "We have had luck by thinking outside the box."

Nina and Jeter Isley of Y Knot Farm and Ranch; Bird City: The Isleys raise organic wheat, grass-finished Belted Galloway beef cattle, and organic produce (for which they are putting up an additional hoop house this year). Jeter is currently the president of the High Plains Food Co-op, which puts in a weekly run of local farm products to the Denver front range. "This provides a place to move excess volume, and give farmers the confidence to grow and support production for local markets," Jeter said. The couple hires local, seasonal help and participates in the WWOOF (Willing Workers On Organic Farms) program. "We enjoy providing opportunities for young farmers to come and learn from all over the world," Nina said.

Dan Kuhn of Depot Market; Courtland: Kuhn has been growing vegetables and fruit for about 40 years. Pumpkins are his main crop, and he primarily sells wholesale with a retail market on-site. He raised 180 acres of produce, the majority of which is under

pivot irrigation. He also grows under hoop houses, mostly tomatoes, cucumbers and red raspberries. He hires seasonal labor through the H-2A visa program.

Beginning Farmers:

Leah Dannar-Garcia of Firefly Farm; Wichita: Leah re-careered recently and decided to start selling organic produce. The farm is now in its fourth year. Dannar-Garcia started with tomatoes as the main crop because, as she shared, "We liked to eat them. We started using our father's styles of growing, but are now going no-till." They expanded production rapidly; Dannar-Garcia says they overdiversified, but the main crop is still the tomatoes. The farm sells to restaurants primarily; 80 percent of what's grown is sold to seven restaurants. She is now looking to expand to agritourism, including farm-to-table dinners, and is looking to improve her composting and fertility practices as an organic farm.

Chris Palmberg of Lazy E Produce; Kanorado: Palmberg's location is very rural, with only about 6,000 people living in the county and about 40 to 50 people coming through a given farmers market on Saturday. He and his wife bought a vacant parking lot. He said, "I'm in the phase of my experience of, 'What's going to work where I am? What can I grow here, and will the local population buy it?" The Palmbergs are selling eggs and raising small numbers of poultry for meat, and the value-added breads and jams have been popular and, perhaps, could be a more profitable market than the raw ingredients. As someone with work experience in economic development, Palmberg is interested in the role local foods could play in revitalizing rural economies.

Dan Brooks of Roots Revival Farm; Sharon Springs: Brooks operates about a half-acre vegetable farm with his wife. Originally an artist, Brooks said, "I decided I wasn't going to get rich doing art, so I decided to start a farm." The couple sells some produce locally and some through the High Plains Food Co-op, and they are looking to do more wholesale if possible. They built a small greenhouse for starts and for some of the longer, hot-season crops. They are completing the Certified Organic paperwork now, and he wished he had access to market research for their area to know which crops would be most popular instead of farmers needing to go through a long period of their own trial and error to find what their community will buy and eat. "We started working with vegetables, because we couldn't find good food anymore," said Brooks.

Claire Zimmerman of GroundSpeak Farm; Edgerton: This year is Zimmerman's second season growing on 2 acres of vegetables. Zimmerman has spent "so much time learning and getting experience, to just now be teaching and running her own farm business": She has an Ag. Sciences degree; spent time doing wholesale marketing with loose-leaf lettuce in Colorado; worked at Powell Gardens for experience in multiple crops in KC region; served as the Johnson County Community College farm manager + Cultivate KC for market farming experience; now on her own renting land. Zimmerman does not own the land she farms – the land belongs to a farmer looking to transition his 600 acres but has no family to take it on. "I am interested in running a sustainable business as part of operating a sustainable farm. Now, I'm in need of more people

power and need to figure out how to navigate getting help and employing others to help," Zimmerman said.

Gabe Spurgeon of South Baldwin Farm; Baldwin (sick + absent): (comments added from phone conversation on March 14). Spurgeon is developing a high-intensity orchard using unique pruning and trellising techniques. His land and much of the needed capital is available through his father-in-law. The farm plans to focus on wholesaling apples and market-direct peaches. The orchard will produce its first wholesale-marketable production this season.

Professional attendees of the learning circle:

David Coltrain, contractor with Kansas Rural Center; Cherryville: Coltrain is organizing and executing the specialty-crop workshops associated with this specialty crop block grant. He has raised hogs and vegetables in Southeast Kansas. "I learned horticulture at KSU, and I got to growing and liking vegetables because of my education situation," Coltrain said. The demand for vegetables continues to grow, he has noticed, and he continues to ask, "Why don't we grow more vegetables in Kansas?"

Tom Buller: Buller is the current Douglas County Extension specialty crop specialist. He also operates an organic specialty crop in Douglas County with his family, and they sell through farmers markets, restaurants, the FreshFarm HQ food hub and CSAs.

Lessons From the Learning Circle

A learning circle was held in late February 2018 for an invited group of specialty crop farmers. This included five experienced successful growers and five beginning growers (those with less than 3 years experience). Discussion was facilitated by Jennifer Kongs, representing Kansas Rural Center; Tom Buller, Douglas County Extension agent and market gardener; and David Coltrain, experienced grower and specialty crop educator. The purpose of the one-day meeting was to prompt discussion among the growers to identify the challenges, barriers and needs they currently face or faced as they developed their operations, and to also identify the opportunities they see for a future in specialty crop production. Shared here are the bullet points on Challenges and Opportunities, as identified by the farmer participants, followed by the narrative story of the learning circle lessons.



The specialty crop farmers included in this collection are resourceful and innovative. Shown here is a tree windbreak planted by the Isleys of Y Knot Farm and Ranch near Bird City, Kansas. The tree windbreaks reduce breakage and evaporation in crop fields.

Challenges Identified

Labor is an issue. All of the farmers covered struggles with labor – when to hire, what quality can you find locally, what quality can you afford. It is especially a challenge when you are paying someone until midsummer before you are getting money to cover that pay, which means you have to have capital available upfront. "This is what everyone

hits their heads on," said Frank Gieringer. Dan Kuhn said, "A lot of people aren't actually willing to do a lot of work, but someone's got to pull those weeds."

Need for educating consumers: "People in my area prefer to go to Wal-Mart than buying local food," said Christi. "People are unknowledgeable about the seasons – many people don't understand that you can't grow tomatoes in the wintertime, even with hoop houses. I was asked at farmers market last year whether I grew oranges. There is an education piece to getting consumers to try new foods – such as when we started selling kale at markets."

"Local residents don't know what to do with a lot of the crops, which factors into whether I grow eggplant vs. tomatoes," said Chris Palmberg. "Also. the ethnic groups living in certain places can dictate what will sell."

Dave Svaty said, "For areas without a large population center, getting consumers to come to an on-farm store or operation is a struggle. Our farm store is currently not holding water, but we want it to work because making time to get into town is a struggle."

Lack of growers: "I can't scale enough to meet the large Wichita market. But, we can't get enough new farmers in to grow more—we don't have enough farmers in our area to support a food hub for the production we can support," said Leah Dannar-Garcia. This situation was highlighted when she was approached by a man in Wichita who wants to start a grocery store pulling from only Kansas/local farmers to create demand to encourage more farmers to scale with a promised market.

Crop Insurance: Nina Isley said, "Whole-farm crop insurance is available, but it isn't well received to work with farmers on it. You have to be patient because the commodity crops and those farmers have more sway. You can work with the NRCS for help, too."

On crop insurance, Dan Kuhn said, "Agree with the agent on what counts as acceptable records. Meet with the insurer directly, and they will provide you a 'T' yield. The insurance isn't fully up to speed, and yields can be much different if growing in a hoop house or doing multiple plantings. Currently, the records are in pounds/acre, but I and others are working on giving the regulators numbers based on square feet for smaller-scale farmers."

"We're one hail storm away from bankruptcy," said Chris Janssen.

Health Insurance: Most attendees are working separate jobs, or have partners working second jobs, for health insurance.

Leah Dannar-Garcia said, "I know young farmers with access to land, but education on growing, no business plan, and no health insurance."

Dave Svaty said, "My son came to farm after he lost his teaching job. The first year was great, but the second year was bad – we lost all of our tomato crop to a virus. He has

three kids, and we had nothing to fall back on, so he had to get a job for security. He wants to farm and he has a space, and we have markets to go to, but you need health insurance and you need steady income, and you can't do that as a starting specialty crop farmer."

Christi Janssen said, "Finding a partner who can be flexible with you can be hard, too. It's not 8 to 5; it's all day, into the dark."

Land availability (but in Kansas, also an opportunity): Dan Brooks said, "We came to western Kansas because it is accessible to buy land, especially small acreages."

Chris Palmberg said, "Land is more affordable than anywhere else."

Chris Janssen said, "Specialty crops take up less space, so you can recoup the land costs more quickly.

Market logistics/infrastructure: Dave Svaty said, "All the good markets are on Saturdays. How can we divide and conquer among those income-generating events?"

Chris Janssen, "There is a need for a place to store produce from growing to market, but that gets into finances. With no advance farm income, you can't add refrigeration, storage, washing facilities. Being paid upfront is one of the great things about the CSA model."

A need was voiced for regional processors for farmers to better raise and bring proteins to market.

Finances: Christi Janssen said, "What's there for small farmers as grants to support the local food production? Not value-added products and not loans, but financial support to grow the product. ... You can't be bare bones forever. You have to invest in yourself, and year-round farming can wear you out. Young people need to know to make sure you do something for yourself."

Leah Dannar-Garcia said, "I'm three years in, but we haven't made a profit yet. Right now, we're reinvesting to expand in order to grow and put in processing equipment – we're scaling instead of profiting. But, where is the right scale for profitability? And how do you become self-sustaining without adding layers as you scale that match your income growth?"

Tom Buller said, "Fort Hays State and the small business council have business planning tools and can help you write a business plan."

Dan Kuhn said, "There's a real challenge on economics vs. scale. The balance of equipment, markets, size, and how to find the answers to your questions as you grow. There is no cookie-cutter approach."

Jeter Isley said, "We need capital, not more studies. We know where the market is, but we need grantors to provide capital to growers, co-op coordinators, and our delivery drivers. Our current High Plains Food Co-op model is not sustainable with volunteers. We have an opportunity to turn our rural communities around with sustainable economics – sustainable growing and sustainability for farmers. I consider our rural communities as disadvantaged as urban inner cities, or even more so because there are fewer people. This co-op model, which sells to large markets, is a means of getting and attracting capital into rural areas that can, hopefully, then support their own local food system sustainably.

... We need grants to bring capital to farmers who can create economic solutions to rural situations. This includes specialty equipment, transportation to markets and a safety net; the means to create viability for farmers."

Farmer education for specialty crop techniques: Dan Brooks said, "Hands-on learning is valuable for this type of education program. You have to learn how to make everything as efficient as possible because time is a valuable asset. Somebody has figured it out, and you can learn over time."

Frank Gieringer said, "I don't know if I could have gotten where I am today with what I started with, if I were starting today. I guess it might now be just like startup businesses, 90 percent aren't going to make it. But, to help, find a mentor, but don't get stuck with one. ... Some people have outgrown extension; for example, we are missing fruit help in our operation. We found really valuable help from going outside the state. We attend winter conferences or regional meetings."

The education around regulations was brought up multiple times, especially the lack of information and fear around new FSMA regulations. Most farmers at the learning circle are currently exempt, but many feel that exemption will be removed in time.

"I am interested in learning more about whole-farm planning. How do I integrate a larger farm and build a whole-system farm that ties cover crops, commodity crops, specialty crops and livestock?" said Claire Zimmerman.

Jeter Isley said, "Farmers think they should be able to do everything themselves. We need to reach out for help."

Opportunities Identified

Business incubators for farmers to give them a space to work with as they experiment. This setup could work with both crops and animals.

Drift: Use high tunnels and row cover as much as possible for spray protection. Use Drift Watch, and keep good records. Unfortunately, how to handle this – especially while maintaining neighborly relationships in the community – is an ongoing challenge. Some

farmers won't turn others in because their own spray records are incomplete, and they are afraid of the regulators.

Vegetable produce auctions: Currently, there are 48 produce auctions in the U.S., mostly with Amish or Mennonite growers. David Coltrain attended an auction in Dennis, and said the growers he spoke with reported selling two times a week and that the auctions brought in \$400,000 a year. Buyers can be individuals up to small grocery chains, and it is unclear yet if others can join. Some auctions set a minimum and some set lot sizes.

Food hubs/producers' co-ops: Tom Buller reported on the FreshFarm HQ northeast Kansas food hub and Jeter Isley shared about the High Plains Food Co-op. In both cases, the models aggregate multiple small growers who then gain access to larger markets. FreshFarm HQ sells into the Kansas City area, and the High Plains Food Co-op sells to the Denver/front range region. Both are formed as grower cooperatives, and both are for-profit entities. The food co-op's consumers are also owner-members (not the case in the food hub). Another good example, on which High Plains Food Co-op is modeled, is the Common Market in Philadelphia. This model helps consolidate the need for equipment, trucks, refrigeration, storage facilities and more to make the grower more focused on growing and the food hub/co-op focused on finding markets and selling.

Join forces in marketing, too: Christi Janssen brought examples of the brochures they had created for their CSA and for other farmers in the area who also show up at local markets or sell locally. They split the cost and divvied up taking time going door to door to deliver the brochures and talk to people about how it works. "When considering marketing, sometimes you have to spend money to make money," Christi Janssen said. The Janssens also "pay" for one of their deliveries by providing a CSA membership to the driver.

Do something that makes you stand out. Frank Gieringer got into U-Pick and agritourism as a way to diversify his farm income. More recently, they have hired professional staff and joined forces with a local winery to start hosting farm-to-table dinners. "Look for something that sets you apart," said Gieringer. "If we didn't have fruit, we wouldn't get people out to our farm." The Gieringers do a lot of marketing and alerts about the U-Pick availability via their Facebook page, which has more than 20,000 followers.

Land transitions: Some farmers are not able to retire, so they can't transition the farm



Frank Gieringer of Gieringer's Orchard shows two new specialty crop farmers features of a peach tree's buds after a frost in mid-April to determine the extent of late-frost damage.

Resources shared by attendees:

- Agritourism: Sue Stringer at Kansas Department of Wildlife, Parks and Tourism (KDWPT); other communities supported by Chambers of Commerce; reach out to Green Dirt Farm or Elderslie Farm for experienced learning
- High tunnel: NRCS will provide a free high tunnel and drip-system percentage to applicants while the funding lasts
- "Get on-farm experience," said Clair Zimmerman
- NAFDMA North America Farm Direct Market Association (especially the closed Facebook group)
- Great Plains Grower's Conference, but, "Don't limit yourself to in-state conferences," said Frank Gieringer.
- Read: Midwest Vegetable Grower's Guide, The Lean Farm 1 and 2, Vegetable Grower's News
- Listen: Chris Blanchard's "Farm to Farmer" podcast
- General supplies: Nolte's Midwest; Morgan County Seeds; Hummert Seeds
- Hoop houses: Zimmerman Welding
- Sprays/plastic mulch: GFG Enterprises (Wayne or Brian)
- Vegetable transplants: 5H Greenhouse in Wamego, Neosho Gardens in Council Grove
- Berry plants: Nourse Farms
- Seeds: Johnny's Selected Seeds, Rispen Seeds, Seedway, Sieger's, Rupp Seeds

- Common Market in Philadelphia
- Local Facebook community pages (can find buyers here; marketing resource)
- Hightunnels.org is a nationwide listsery; has archives from the past 15 years

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Network recommendations:

Closed Facebook group: People could leave comments, ask questions, and others can respond as they have time to spend on the page. Perhaps get funding for a moderator/someone to research and reach out as needed to bring people into the page and to be sure questions are answered. Could also be a place to post events, equipment needs, delivery routes, etc.

Regular conference call: The idea of creating a specialty crop conference line – specifically if the topic were announced to potential callers ahead of time (fruit, marketing, hoop houses, etc.) – was well-received. People especially liked that growers would be able to call-in with questions as they came up, and have an expert to get them answered. Could get funds to keep someone on the call, or to bring in various experts based on topic or region.

Kansas vegetable and fruit growers' association: This directory and newsletter used to exist; could it be resurrected?

In-person meetings: This was an idea everyone liked, but they were honest about how the frequency could keep people from participating. For a more regular means of communicating and questions in the moment, this wasn't the best option. But, as a means of gathering – such as connected to the conference – was suggested.

Collate multiple clusters: A way to create a resource by creating a network. This, especially, could live on the closed Facebook group.

Shared labor networks: Could farmers who work with interns have a means of connecting and, once a month, trade their laborers so the potential future farmers could learn skills from other farms? This is something Dan Brooks had access to during his internship.

Shared equipment networks: A means of connecting/having access to a database of other farmers who are willing to share/rent equipment and provide rental opportunities from farms to farmers. Could also be a source of income for the equipment owners.

Narrative of Learning Circle Lessons

"Sustainable economics for rural communities includes sustainable growing and a system that is financially sustainable for farmers," said Claire Zimmerman, operator of Groundspeak Farm in Edgerton, Kansas. Zimmerman was one of 11 specialty crop farmers who gathered in Salina, Kansas, on February 26, 2018.

The farmers were participating in a learning circle as part of the Kansas Rural Center's (KRC) project "Linking Experienced and Beginning Specialty Crop Farmers to Share Information for Establishing Successful Specialty Crop Enterprises." The project goals include identifying common challenges for specialty crop farmers and opportunities that have been learned through farmers' experiences, and building a network for ongoing peer-to-peer connection between specialty crop farmers across the state. Zimmerman succinctly summed up many of the concerns shared by the farmers present: a sustainable farming system must be economically viable for those engaged in farming.

The farmers invited to the learning circle, which included long time experienced growers and several beginning growers, discussed the realities of growing and marketing fruits and vegetables in different communities across Kansas.



One of Chris and Christi Janssen's plots within the city limits of Scandia shown growing brassicas, potatoes and onions.

"People in my area prefer to go to Wal-Mart than buying local food," said Christi Janssen of C and C High Tunnels in Scandia, Kansas. "People lack knowledge about the seasons – many people don't understand that you can't grow tomatoes in the wintertime, even with hoop houses. I was asked at farmers market last year whether I grew oranges. There is an education piece to getting consumers to try new foods – such as when we started selling kale at markets." The Janssens grow entirely within the city limits of Scandia, selling through multiple CSA deliveries in their hometown and neighboring communities as well as at multiple farmers markets.

"Local residents don't know what to do with a lot of the crops, which factors into whether I grow eggplant versus tomatoes," added Chris Palmberg or Lazy E Produce in Kanorado, Kansas. He and his wife bought a vacant parking lot to start growing within the Kanorado city limits. He said, "I'm in the phase of my experience of, 'What's going to work where I am? What can I grow here, and will the local population buy it?"

The Palmbergs are selling eggs and raising small numbers of poultry for meat, and Palmberg notes that including value-added breads and jams have been popular and, perhaps, could be a more profitable market than the raw ingredients. As someone with work experience in economic development, Palmberg is interested in the role local foods could play in revitalizing rural economies.

Dave Svaty of Svaty's Produce in Kanopolis, Kansas said, "For areas without a large population center, getting consumers to come to an on-farm store or operation is a struggle. Our farm store is currently not holding water, but we want it to work because making time to get into town is a struggle."



An early spring look inside a recently tilled hoop house on the Svaty's farm near Kanopolis, Kansas.

The Svatys raise vegetables in multiple hoop houses, as well as run a grass-fed beef, lamb and pork operation. Dave currently sells primarily at farmers markets, but a few years ago he built an on-farm store, with daily operating hours, to sell produce and meats year-round. Svaty raised concerns about the logistics of selling the majority of a farm's produce through farmers markets when the most profitable markets are all on Saturdays, and the weekday markets are much smaller and held in multiple locations.

Dan Brooks of Roots Revival Farm in Sharon Springs, Kansas, said, "We came to western Kansas because it is accessible to buy land, especially small acreages." Brooks operates about a half-acre vegetable farm with his wife. The couple sells some produce locally and some through the High Plains Food Co-op, and they are looking to do more wholesale if possible. They are completing the organic certification paperwork now, and he wished he had access to market research for their area to know which crops would be most popular instead of needing to go through a long period of trial and error to find what their community will buy and eat.

"We started working with vegetables, because we couldn't find good food anymore," said Brooks, but the market isn't readily available. Based on the attendees' experience, where land is more affordable and accessible, the markets are harder to develop.

Farmers like Frank Gieringer of Gieringer's Orchard in Edgerton, Kansas, have had growing success in developing agritourism opportunities near a large population center, like Kansas City. Fifteen years ago, the family put in an orchard and then added a high tunnel, which grew into six, growing mostly grafted tomatoes. The U-Pick and agritourism efforts at the farm include plasticulture strawberries; raspberries and thornless blackberries; peaches; pumpkins; and soon apples.

Gieringer also raises conventional corn, soybeans and cattle, but shared that 2017 was the first year the specialty crops beat out the conventional crops in net income. "Look for something that sets you apart," said Gieringer. "If we didn't have fruit, we wouldn't get people out to our farm." The Gieringers do a lot of marketing and alerts about the U-Pick availability via their Facebook page, which has more than 20,000 followers.



On the Gieringer's farm, strawberries are planted in raised rows on black plastic in fall, then covered with heavy row cover for production the following spring. These plants were photographed in early April.

Similarly, Leah Dannar-Garcia of Firefly Farms near Wichita, Kansas, says, "I can't scale enough to meet the large Wichita market. But we can't get enough new farmers to grow more – we don't have enough farmers in our area to support a food hub for the production we can support." Dannar-Garcia has been growing for three years and has primarily focused on tomatoes and selling to local chefs. The local sourcing for restaurants is an opportunity for farmers growing in areas with such a demand.

Labor and health insurance were two challenges for which no ready opportunity presented itself during the conversation. It is especially a challenge when farmers are paying someone until midsummer before getting money to cover those wages. While CSA models, which provide upfront payments to farmers before production begins, provide income to pay for labor, it isn't an answer for all farmers.

For large wholesale producers, including attendee Dan Kuhn of Depot Market in Courtland, Kansas, hiring seasonal labor through the H-2A visa program is an option. Kuhn has been growing vegetables and fruit for about 40 years. Pumpkins are his main crop, and he primarily sells wholesale with a retail market on-site. He raised 180 acres

of produce, the majority of which is under pivot irrigation. Kuhn notes that the visa program is clearly not for everyone: It requires extensive paperwork and infrastructure, and is not sustainable for individual smaller operations.



The Depot Market on-farm store is located right off the highways and next to the farm's processing and storage building.

Gabe Spurgeon of South Baldwin Farms, an intensively planted fruit orchard that has been in operation for a couple of years in Baldwin, Kansas, added, "In other states with apple-growing regions, there is a known population that does this type of work. We don't have that as strongly in Kansas."

On health insurance, many farmers expressed that someone in their family was required to hold off-farm jobs to provide health care coverage for their families. Dave Svaty said, "My son came to farm after he lost his teaching job. The first year was great, but the second year was bad – we lost all of our tomato crop to a virus. He has three kids, and we had nothing to fall back on, so he had to get a job for security. He wants to farm and he has a space, and we have markets to go to, but you need health insurance and you need steady income, and you can't do that as a starting specialty crop farmer."

Regulations and crop insurance were also identified as barriers. While many specialty crop farms, especially those who market directly to consumers, are exempt from many of the larger farm regulations, the confusion and concern for what the future holds was expressed by many in attendance.

In addition, the lack of consistent availability of information and willingness to help producers with unique business models is a reality many farmers have faced. Nina Isley

of Y Knot Farm and Ranch in Bird City, Kansas, said. "Whole-farm crop insurance is available, but it isn't well received to work with farmers on it. You have to be patient because the commodity crops and those farmers have more sway. You can work with the NRCS for help, too."

Jeter Isley, current President of the High Plains Food Co-op and co-owner of Y Knot Farm and Ranch with his wife, Nina, stressed that the bulk of farmers' abilities to scale is limited by access to capital.

"We know where the market is," he said. "But we need grantors to provide capital to growers, co-op coordinators, and our delivery drivers. Our current High Plains Food Co-op model is not sustainable with volunteers. We have an opportunity to turn our rural communities around with sustainable economics – sustainable growing and sustainability for farmers. I consider our rural communities as disadvantaged as urban inner cities, or even more so because there are fewer people. This co-op model, which sells to large markets, is a means of getting and attracting capital into rural areas that can, hopefully, then support their own local food system sustainably."

Dan Kuhn said, "There's a real challenge on economics versus scale — the balance of equipment, markets, size, and how to find the answers to your questions as you grow. There is no cookie-cutter approach."

The attendees recognized several creative opportunities to address many of the challenges brought forward. One was to consider ways for farmers to collaborate with their efforts on growing, marketing and selling products.

Tom Buller, specialty crop specialist at Douglas County Extension, reported on the FreshFarm HQ northeast Kansas food hub and Jeter Isley shared about the High Plains Food Co-op. In both cases, the models aggregate multiple small growers who then gain access to larger markets. FreshFarm HQ sells into the Kansas City area, and the High Plains Food Co-op sells to the Denver/front range region.

Christi Janssen brought examples of the brochures they had created for their CSA and for other farmers in the area who also show up at local markets or sell locally. They split the cost and divvied up taking time going door to door to deliver the brochures and talk to people about how it works. David Coltrain, a contractor with the Kansas Rural Center, shared about produce auctions, such as the one held in Dennis, Kansas, as a new marketing opportunity.

The attendees also brainstormed ways to increase producer education opportunities. "I am interested in learning more about whole-farm planning. How do I integrate a larger farm and build a whole-system farm that ties cover crops, commodity crops, specialty crops and livestock?" said Claire Zimmerman.

Dan Brooks asked whether farmers could setup an apprentice or labor "trade" program to provide extra labor for big projects and potential new farmers with opportunities to learn from various operators. "Hands-on learning is valuable for this type of education program. You have to learn how to make everything as efficient as possible because

time is a valuable asset. Somebody has figured it out, and you can learn over time," he said.

The farmers agreed that peer-to-peer connections, especially with other growers in a similar region or trying similar techniques, was valuable. Attending conferences, including out-of-state events in areas with more fruit and vegetable growers, can be a source of new information and ideas that aren't yet being implemented by farmers in Kansas.

"Because we are growing differently than many orchards here — we are building trellises and training limbs — we are getting a lot of supplies and insights from Michigan, where more people are doing this sort of work," said Spurgeon. Fellow fruit-grower Gieringer has found a lot of value in the North America Farm Direct Market Association, especially their Facebook group, and shared that he and his wife often "vacation" to out-of-state conferences to learn more about fruit operations.

Additionally, connecting growers through a closed Facebook group or monthly producer conference calls are opportunities the Kansas Rural Center is pursuing with the hopes of launching these and other ways for farmers to stay connected, ask questions, and share lessons in the coming year.

Next steps for the KRC project are individual interviews and grower profiles that will be published later this summer along with the Learning Circle summary. Also the KRC fall conference will feature several workshops for specialty crop growers.

5 Farmer Profiles

Svaty's Produce: Ingenuity and Family Growing a Vegetable Enterprise



Dave Svaty explains the various compartments of his custom-built farmers market display wagon, which puts the produce at eye level with potential customers and makes loading and unloading more streamlined. There's room on the wagon for freezers of the farm's meat as well.

Dave Svaty has farming in his family's roots. He grew up on a farm down the road from where he and his wife, Connie—along with his son, Caleb and his family—are tending cattle, pigs, sheep, and vegetables growing in fields and inside hand-built hoop houses. Dave and Connie had raised livestock and sold vegetables from a roadside stand for more than 25 years. Dave, who has a degree in Agronomy from Kansas State University, started working 17 years ago at the local co-op to provide a source of steady income. Three years ago, Dave left the co-op job and at about the same time, his son also lost his teaching job. Connie continues to work as a teacher's aide, largely to keep the family covered with health insurance. The Svatys wanted to try making the combination of meat and increased vegetable production a go, with a focus on high-value crops, like tomatoes, grown in hoop houses. KRC visited Svaty's Produce on

March 30, a muddy, blustery day, to learn more about their operation and get a tour of their production.

The Svatys have been able to expand their operation and create a unique setup with ingenuity and DIY skills. Dave custom-built his farmers market trailers to pull behind a truck. The wooden frame features a drop-down side that holds flat crates of produce; a walkway where the Svatys stand to sell from; a spot for a freezer to hold the meat; and large bins for melons, potatoes and other larger, heavier crops. The produce is held at eye level for the customer and everything is easily accessible by the person handling sales at market that day. Dave and Caleb liked the first one so much, Dave built a second one, so they could both have one at each Saturday market where they are vendors.

For folks who want the on-farm experience, the family built a shop on-site, with customer-friendly reach-in coolers, a walk-in cooler for crop storage, and shelves and boxes for produce sales. The investment, Dave says, would be worth it to save the driving time to multiple markets each week, and of course, the family hopes for added income from the set daily operating hours of 3 to 7 p.m. on weekdays. The space also has a back room, which has already provided value in getting the produce-washing and storage out of their house. Before the building, washing, storage and prep on Fridays before the big Saturday markets all happened inside Dave and Connie's home, where she bakes and packages homemade kolaches by the tens of dozens for market sales.

Dave and Caleb have been smart about how they re-purpose materials and incorporate made-to-fit solutions for season-extension and crop protection. For example, the calving barn is built with bridge planks Dave bought from the county. He moved an unwanted wooden hoop house frame from Ellsworth high school, which came complete with plastic covering. When their second hoop house, which has gone through four seasons, kept losing its plastic covering, Dave boxed in the ends with wooden frames to keep the hoop house together better. Turns out, wind is often a specialty-crop farmer's most challenging nemesis. The shape of the hoop house has other shortcomings: "I made a mistake in buying a round hoop house. I should have bought one with sidewalls, because I can't get in close enough along the sides with equipment," Dave says in retrospect.

Dave has built a lean-to greenhouse onto his home, heated with the home's old woodstove. "I came home one night, and told my wife I was going to build a greenhouse. So, I dug this space with a skid loader."

When I visited, the greenhouse was full of green, growing life. Because of a previous year's infection, the family now primarily raises tomato varieties resistant to tomato spotted wilt virus, including 'Mountain Glory' and 'Skyway 687.' They are trying some varieties—especially cherry tomatoes—that are not resistant, such as 'SunGold,' because of their popularity with customers. The greenhouse held dozens of flats filled with starts of tomatoes, sweet peppers, hot peppers, cauliflower, cabbage, broccoli, Brussels sprouts, celery and herbs. Once I left, he was planning to plant three colors—

red, yellow and orange—of seedless watermelons on electric heating mats to keep the soil warm enough for germination.

There are also fig trees in buckets in the greenhouse that Caleb and Dave are planning to experiment with based on expertise from a fellow farmer in New York. Caleb, his father says, connects to other growers online who are also trying unique setups around the country. I joked with Dave about him being cutting edge, and he smiled, but readily reminded me it was Caleb who was making the new connections.

The farm's growth and diversification has not come without its struggles. "The first year was great. The second year, we lost all of our tomatoes to tomato spotted wilt virus. We have also lost tomatoes after uncovering them to spray drift," Dave says. Their history with a nearly complete crop failure caused by TSWV is why the family emphasizes TSWV-resistant varieties for their tomatoes and peppers.

After losing the tomato crop two years ago, Caleb needed to take on off-farm job working on wind turbines. "He has three kids, and we had nothing to fall back on, so he had to get a job for security. He wants to farm and he has a space, and we have markets to go to, but you need health insurance and you need steady income, and you can't do that as a starting specialty crop farmer," Dave says.

The family still raises close to 60 acres of conventional wheat and soybeans, accounting for an estimated 20 percent of the family's farm income. Dave says the farm gets better returns on the vegetables than the meat, especially the lamb and chicken. The pork and beef, largely because they are more popular meats in his area, have higher profit margins. The family has about 200 head of sheep, a dozen cattle and fewer than 10 hogs.

Dave has his concerns for the future of vegetable farming. One is FSMA, the Food Safety Modernization Act, and how to update to meet all of the requirements, especially regarding his family's combination of livestock and vegetables. His lambing barn, which is separated by a barrier wall but connected under one roof with a growing spot for early greens to take advantage of the animals' heat, would likely be forbidden.

"I'm an exemption, but we try to be up to speed. It is overwhelming, some of the specific rules and the amount of written documentation that would be required. My wooden picking crates wouldn't be allowed, I couldn't let my dog go into the field with me when I pick, but we have rattlesnakes and I want my dog with me."

Dave also wonders whether having multiple weekday markets in different parts of town — rather than a concentrated time in one spot — is best for farmers' sales. The most economical setup for where and when to hold markets is a commonly discussed direct-sale farmer struggle. "In summer, we saw more foot traffic to the farm store, which is ideal for us, but winter has been harder," Dave adds.

He worries about new farmers getting started, and existing farmers adding or diversifying their operations, with the heavy financial burden associated, given the current structure for financing and health insurance. Working without a fall-back, as he is now, leaves "no margin for error" with the growing and marketing.

When asked what changes could help his farm be more successful, Dave responds that he feels strongly that the sales tax on food should be eliminated, for the sakes of both farmers and consumers. "It is difficult to track, and compared with neighboring states, we're putting a tax on poor people trying to buy groceries."

He also recognizes a need for a better system to protect against drift for sensitive crops. "I have neighbors that do their best to be careful, but even on windless days, we see the damage." He also suggests that when feedlots or other concentrated operations move in nearby, that the specialty crop farmers who need clean water be protected. As his farm shows, there are multiple ways to grow food and build livelihoods through agriculture in Kansas, and he would like to see them all treated with equal protection.

Despite his concerns, as we walked through the fields, Dave's love of growing food and raising animals was tangible. He proudly pointed out the field planted days before with 2,200 pounds of potatoes (he named the dozen or so varieties off the top of his head); his sandy soil that grows juicy melons; and the lambs he has protected with their mamas in the barn.

Dave shared new ideas he wanted to test this year—clearly skilled at coming up with unique solutions to the various challenges farmers face. He spoke of incorporating oats as a cover crop before planting melons; a new method for stringing and covering tomatoes he's keen to experiment with; harvesting asparagus throughout the year; and more. When he spoke of challenges, he appeared distraught and overwhelmed by handling the bulk of the work solo, as if he were watching the end of an era. But, while visiting the farm, it's hard to see anything but hope and potential while watching the lambs bounce, listening to the calves call, and passing through the warming hoop houses filled with new life.

Gieringer's Orchard and Berry Farm: Success in Diversity—Agritainment and You-Pick Yield Surprising Results



Frank Gieringer explains his tomato-planting and trellising program inside one of their hoop houses on his farm outside Edgerton, Kansas.

Frank Gieringer was raised in Edgerton, Kansas, and started farming outside of town when he graduated from high school. "I started with hogs," Gieringer says, "but got out of that business in the '80s, when things went downhill." Fast forward to today, when he and his wife, Melanie, own 160 acres, own an additional 80 acres with their son, Bryson, and farm more than 1,000 acres. They raised row crops for years, then about 11 years ago, began to diversify.

KRC toured Gieringer's Orchard and Berry Farm on a cool April day, following a weekend with unusually low temps that reached into the teens. The Gieringer's peach trees were just blooming—and survived the late frost—and the hoop houses were full of fledgling tomato plants and cauliflower.

The Gieringers started growing in hoop houses a little more than a decade ago. This year, the farm has planted about 400 tomato plants in each of five hoop houses. The sixth hoop house is home to the purple and cheddar cauliflower, a popular add-on buy when people come to pick strawberries. "We've found a design we like from Stuppy Greenhouse in Kansas City. It is a greenhouse frame that has bigger, stronger pipe and drop-curtain sides," Gieringer says. "We typically get our plastic and other building supplies from FarmTek. I hired someone to make custom ends with wooden frames, which probably cost us \$1,500. The ends are more permanent and anyone on the farm could handle closing them if a storm is coming in. We found the zippered ends that come with the FarmTek kits to be too difficult to work with. We've had nine years with these custom hoop house ends."

"We're probably raising too many tomatoes at this point. We're going to try to steer away from growing quite so many in future years. We're no longer moving all the tomatoes off the farm or at the farm, likely because people come out here for fruit, and I don't want to sell wholesale." Gieringer says. "Having the tomatoes early brings people to our farmers market stand, but come August, we can't move much volume because everyone has them."

The family has a stand at the Overland Park farmers market, where, in addition to tomatoes, they sell vegetables and any fruit excess from the you-pick operation (which isn't much). The family also uses this time with customers as a marketing tool to invite people to come to the farm for the you-pick experience.

"If you're wanting people to come to your farm, you have to grow something that puts a little fire in their britches," Gieringer says. "Peaches, strawberries, things like that. They may buy tomatoes or cauliflower while they are here, but they won't drive here just to get those items."

The you-pick and agritainment features have become the biggest focus for growth for the Gieringers. "We built our first building to sell you-pick peaches right by our house, and we are now trying to move to the adjacent 80 acres we bought down the road," Gieringer says. "That's where we're trying to move to agritainment," Franks says. The farm has a food truck for lemonade and strawberry donuts, a playground space, and

offers you-pick strawberries, raspberries, blueberries, blackberries, pumpkins, and, soon, apples. In the fall, the farm adds a haystack maze for the pumpkin-patch visitors.

The family has 9.5 acres of peach trees, home to about 1,000 trees of multiple varieties. In recent years, the family added farm-to-table dinners in the orchard. "We string lights in the trees and set up tables between the rows of peach trees," Gieringer says.

The family still raises conventional corn and soybeans, and has adapted over the years to a no-till system. "In our row-crop side, we are all no-till. We are able to do that because we grow GMO varieties and we have greatly reduced our pesticide use. We still use an herbicide to do the no-till, but we have seen a major reduction in our spraying."

Gieringer says the diversification has been worth the work and change of mindset. He says 2017 was the first year the diversified, specialty-crop business beat out the conventional crops in net income. This new focus, and the shared buy-in to the additional acreage, was part of Bryson choosing to come back to the farm and putting real skin in the game.

"It is an incredibly expensive undertaking to expand into what we're growing into. We're doing bigger-scale stuff and we've borrowed more money, and up until now we've grown organically," Gieringer says.

Take, for example, the newest expansion underway: a high-density, trellised apple orchard. "The orchard technique is largely planted in Honeycrisp on Geneva dwarfing rootstock, planted on 2-foot centers," Gieringer explains. "The goal is to get a fruiting wall by tying the tree up a trellis, and once it reaches 10 feet, let it fruit and fill the space." This keeps the trees narrow, meaning the aisles in between are open and the trees are more easily pickable, right at eye height. "Most orchards will be going to this, but it is incredibly expensive," Gieringer says.

Or consider the plasticulture strawberry operation. The family has about 56,000 plants, replanted and rotated annually, on black plastic in rows with wide, mowed paths in between, covering about 5 acres. "We've got about 25 acres of deer fence, which was put up in late summer 2017. We needed it up for the strawberries, and we were tired of moving temporary fence every year we rotated our strawberries. Decided to bite the bullet and do it right," Gieringer says.

He estimates with the deer fence, labor, plugs, irrigation, black plastic, covers, fungicide, fertilizer and harvest boxes, a farmer will invest about \$10,000 an acre the first year. "But, if you following the Plasticulture Strawberries handbook out of Ohio State and do it exactly by the book — without skipping steps and each step on time — you will be successful." Gieringer estimates you should get 1 pound of berries per plant on average. At about \$3.50 per pound, you can start to estimate a payback period on the investment.

Their farm is largely supported by the large, nearby population center of Kansas City. On the highest-volume day last year, Gieringer estimates 2,200 people came out for you-pick strawberries. Subsequent years are much less investment-intensive, however, labor costs will continue to be an issue. In truth, labor costs are one of the Gieringer's most limiting factors.

"In January, we sent out 52 W2s, most of whom are high school temps. We have four full-time people right now," Gieringer says, "and just hired our first 'inside' help to handle accounting, FSMA, etc." On one strawberry weekend this year, he says his wife sent out \$1,200 in paychecks.

Another concern, as shared by other specialty-crop growers, are the regulations and FSMA. But, Gieringer says, "Anybody who's going to do this full-time and is going to be serious needs to be FSMA compliant. Because even people who are exempt will be held accountable if they have an incident. It's going to kick out a lot of the older producers who won't go through the process, but it will present more opportunity for somebody who is willing to go through the steps and bear the expense."

And the family is no stranger to adapting to change we necessary. For example, they modified their parking when the operation took off and began to think more about customer flow. "We had consultants come in and help us design our operation so we could handle thousands of people at a time," Gieringer says.

With their continued growth, innovation and prime location, thousands of customers each weekend from strawberry season to the end of apple season isn't much of a stretch of the imagination.

C and C High Tunnels: Taking the Urban Farm to Rural Towns



The Janssens have equipment specific to their farm needs, including a sprayer and wagon to haul heavy crops.

Chris and Christi Janssen have taken the concept of an urban farm and modified it to the town of Scandia (population estimated at about 350 people). The Janssens have launched and managed a CSA (community-supported agriculture) program and sell at multiple farmers markets, driving hundreds of miles each week to reach their spread-out customers, but determined to provide fresh produce to the small towns clustered around their own in North-Central Kansas.

The Janssens moved to Scandia to be closer to Christi's family, who live in the area, in 2006. Chris had a job as a teacher and Christi was working at an eye doctor's office. Becoming vegetable farmers and marketers was not in the plan. But, two years after the move, Chris lost his job. Shortly after, the eye doctor where Christi worked was sold, and she, too, lost her employment. Chris worked at Depot Market, a large, wholesale-focused specialty crop operation in nearby Courtland, as the couple started their own

vegetable operation, which they named C and C High Tunnels. "This is what we decided would work without uprooting the family again," Chris says.

KRC visited the farm, which covers a total of about 2 acres of cultivated land on one edge of Scandia, in early June 2018. Chris gave a tour of their four plots as well as their home lot. The weather was warming after an unseasonably long, cold spring. Despite the delay in warm weather, the crops inside the Janssen's high tunnels were looking strong. "We started out with two high tunnels in 2009, when we bought our first plot of land. We added a third in 2011."

The couple raises about 2,500 tomato plants and about as many brassica crops, as well as potatoes, sweet potatoes, onion, cucumbers, sweet peppers, onions, rhubarb, melons, squash, berries and more. They plant tomato starts in the high tunnels around the first week of April, and start their melons and squash in a small unheated greenhouse by their home at about the same time.

Most growers using high tunnels choose determinate tomato varieties because the indeterminate varieties can grow unwieldy, requiring regular attention to pick the suckers off as the plants grow and trellising to the top of the hoop house structure. "We mostly grow Jet Star tomatoes," Chris says. "We prefer indeterminate tomatoes because we think they have better flavor."

Without steady income at the time they started the farm, Chris says the high tunnels were financed through loans. "We got a rural development loan out of Belleville and a loan from a bank in Courtland to buy the high tunnels. We had to go into some pretty serious debt, as this was before there were grants available to put up high tunnels for nonorganic producers like us. We went to the Courtland bank because the bank in Scandia didn't want to finance the tunnels." (The Natural Resource Conservation Service now allows organic and nonorganic producers to apply for its high tunnel grants.)

When asked whether wind or other complications have caused them much trouble with their high tunnels, Chris says the biggest issue they've had are the white flies that come on in August. "This year," he says, "we are going to start preventative spraying to get ahead of the problem. Once they start, we haven't been able to get rid of them for the rest of the season." Outside of growing in high tunnels, Chris spoke of the challenges of finding financing that didn't require debt or loans to start and build their farm. Without more creative economic supports, Chris says, more farmers are going to have a hard time getting into the field.

The family relied on sales' growth to finance their expansion over the years, which has included purchasing three more empty lots, clearing any trees on the lots, and farm equipment. The lots were added over an eight-year period, with the most recent being added in 2017. "We buy from neighbors who aren't really using the land anymore. People like to see the lots get cleaned up and put to good use," Chris says. All four of the plots are within a 10-minute walking loop of the Janssens home, and often, Chris and Christi will ride their bikes to do a guick harvest, pull weeds, check on crops or

other chores at the plots. Indeed, as Chris walked us around to the plots, Christi pedaled by with a bucket in hand to pick a few more cucumbers to fill out the day's CSA order.

They've also been creative in modifying the resources available. For example, after their son moved out, they turned his bedroom into a walk-in cooler. They lined the inside of the walls with insulation, stripped the floors to the wood, and added a cooling unit and shelves. They also use the space to pack boxes and bags for deliveries.

The Janssens currently sell through retail and wholesale outlets, with revenue split about 50/50 between the two. Of the retail sales, Chris says about 80 percent are farmers market sales and 20 percent are from the CSAs. At the time of my visit, 55 people were signed up for the CSAs in various nearby towns. Their goal is to reach 100 members, and they expect to have closer to 70 by the end of summer. Only five or six of the CSA members are in Scandia, and the town doesn't host its own farmers market, so the Janssens drive to their customers almost every day during the growing season. "We go to the Phillipsburg market on Tuesdays, Wednesdays we head to Beloit, Fridays we are in Salina, and on Saturday we go to Belleville. We deliver wholesale orders to grocery stores once or twice a week in Hutchinson and to Pendleton's Country Market about once a week in Lawrence. We have additional CSA customers in Salina, where we deliver sometimes to Prairie Land Market, and we have another bigger buyer in McPherson," Chris says.

With that much driving and customer management, Chris and Christi are figuring out ways to scale and streamline their business. First, he says, they hope to grow their Scandia customer base with the store they opening in the town's downtown in 2018. The goal is to sell their produce alongside other Kansas-made products, such as soap, lotion and canned goods, to both attract more customers with a wider range of offerings and give their neighbors a way to buy their products "without having to knock on our back door to get them."

Chris also says they'd like to grow the CSA membership enough to drop at least one farmers market, largely because the markets require either Chris or Christi to sit for hours with only the hope of sales. (Chris does, however, enjoy explaining the crops and ways to cook them to new customers, evidenced in our conversation and the fantastic tomato soup recipe he shared with me.) "Increasing the membership of our CSA would also help stabilize the situation with our larger buyers. We are dependent on them to an extent, and we've been stuck sitting on tomatoes for a long time when a buyer has backed out," Chris says.

He'd also like to buy a refrigerated unit that can travel with them, making it easier to do longer delivery routes and concentrate the days off-farm delivering CSA shares. The couple also hopes to add more lots of land, but not to expand production much. "Right now, we have to carefully time and stagger our production. For example, we plant our melons in between our rows of cauliflower and broccoli. We have to get the cauliflower and broccoli out in time to create space and driveways for us to access and harvest the

melons. More space would make farming less of a logistical headache for us," Chris says.

The bulk of the farm's work is done by Chris and Christi themselves. They hire a few young, local residents to help throughout the summers. Christi is a para at the local grade school to provide the family with health insurance while still giving her the summers off to work on the farm. Chris left Depot Market five years ago to focus full-time on the family's operation.

As with most specialty crop producers, the Janssens have made changes based on the Food Safety Modernization Act (FSMA) regulations. (FSMA is an FDA audit program that requires producers to meet safety standards for growing, harvesting, washing and processing produce.)

The Janssens have taken the necessary steps to become FSMA-compliant, despite being exempt for the time being. While the family expects to expand their operations, they have limits to how big they want to get. Part of their decision in pursuing compliance despite their exemption was their relationship with wholesalers. "We don't sell to large grocery stores, who also require Good Agricultural Producers (GAP) certification for much of their products. But we can sell a pallet or two of certain crops to smaller grocery stores, and that allows us to stay mid-sized but still access wholesale markets," Chris says.

One of the biggest pieces of advice Chris and Christi have for farmers looking to sell direct to consumers is to invest into marketing materials. C and C High Tunnels has a brochure they hand out to potential CSA members at markets and door to door in neighboring towns. "You have to spend money to make money sometimes," Chris says. "And to stay in business, you'll need to make money."

Depot Market: Scaling to Wholesale With Specialty Crops in North Central Kansas



The Kuhns continue to innovate. In 2018, they planted thornless blackberries on a trellis as part of a new you-pick operation.

Most specialty crop operations in Kansas rely heavily on direct-to-consumer sales. While several farmers are specializing and scaling to provide to institutional and wholesale purchasers, one of the largest and to-date most successful is Depot Market in Courtland, Kansas, run by Dan Kuhn and his wife, Kathy. Currently, the farm's sales

are nearly 80 percent to wholesale outlets. But that's not how Kuhn got started and isn't where he intends to keep growing.

Kuhn wanted to be a farmer, "but I was raised as a city kid in Shawnee. After attending KU, I went to K-State and farmed some orchards nearby. When I graduated, I had an opportunity to work on an orchard north of Courtland, so I moved here and started working for that orchard, then started farming for myself," Kuhn says. In 1989, he and his wife bought 1.5 acres and the old Santa Fe Depot in Courtland, renovated it, and moved it to the property alongside Highway 36, where it still sits today. The site houses a retail store, vegetable washing/packing house and walk-in cooler (added in 2010), and is a convenient location for deliveries and pickups.

"We started with apples, including you-pick, all through the '80s, but moved away from them toward vegetables as the market shifted. We raised seven kids and lived below poverty level for a long time. My wife did some teaching and for a few winters I worked at a meat-packing plant to pay bills," Kuhn says. The family relied on borrowing from the bank when needed and organic growth to scale. "I didn't start with anything. I had no land and wasn't from here. In 1981, my grandmother died and left me \$12,000. We probably wouldn't have made it without that."

It was clear on the day KRC visited that Kuhn has come a long way since the start. We walked through the washing and processing house as a truckload of freshly picked zucchini was packed and sent off for delivery. "We sell in 10 states on average each year, and pumpkins are our biggest crop. Two large chains comprised half of our total sales," Kuhn says. "We also sell to our local guys and local peddlers and would like to grow that business, but we can't make a dead switch and keep the farm. If we could, we'd like to have a route going through western Kansas and hit a loop to sell to those smaller markets."

To sell at such a scale requires growing at a large scale, hiring at a large scale and dealing with a large amount of paperwork. Kuhn has 190 acres under production, and his largest pumpkin and watermelon fields, each 50-plus acres, are planted under center pivot. Kuhn manages 29 employees during pumpkin time, which grows from 12 employees earlier in the season. Two employees work full-time, year-round. In the first week of June, eight H-2A program workers were employed on the farm, living in provided housing. (The H-2A Temporary Agricultural Workers program, sometimes referred to as "visa hiring program," allows U.S. employers who meet specific regulatory requirements, including housing, to bring foreign nationals to the U.S. to fill temporary agricultural jobs.)

"The number of visa hire will increase as the season progresses. This is our 11th year hiring through the visa hiring program. We don't really have other farmers nearby who hire through the program," Kuhn says.

The farm is compliant with Good Agricultural Practices (GAP) and Food Safety Modernization Act (FSMA). GAP, required by many chains to sell into their stores, is a voluntary audit that verifies that fruits and vegetables are produced, packed, handled,

and stored in adherence to the recommendations made in the U.S. Food and Drug Administration's (FDA) <u>Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables</u>. FSMA is a separate voluntary certification overseen by the FDA, which includes a specific set of on-farm practices that must be met. By January 27, 2020, any farm where the average annual monetary value of produce the farm sold during the previous 3-year period is more than \$25,000 will be required to be compliant.

"We had started selling to bigger wholesale customers who required us to get GAP certification in order to keep them as a customer," Kuhn says. The certification is managed by one of Kuhn's full-time employees, who also oversees bringing in a GAP auditor. This year the auditor came from Texas, so the farm pays for travel and lodging expenses on top of its certification fees each year to maintain certification and its wholesale clients. Other years the auditors have come from Kansas City, Missouri. Some of the tracking requirements include a sign-in for handwashing outside of the walk-in cooler and portable bathrooms and handwashing in the fields. Currently, GAP and FSMA are not aligned on the requirements, each with its own processes and bookkeeping stipulations.

To accommodate orders by the semi-truckload, Kuhn and his team manage 12 hoop houses, the majority filled with tomatoes: "about five varieties, one house has indeterminants." (Indeterminate tomato varieties tend to have a longer fruiting season but their fast, continuous growth habit requires trellising and pruning in a hoop house setting.) One of the hoop houses is filled with raspberries ("a great retail crop through frost"), and one with cucumbers ("as profitable as the tomatoes").

"We have our hoop houses located in a spot with some wind protection, which is key for this part of the state. For us, the bigger the house, the better. We put removable ends on them so we could run a tractor and farm straight through," Kuhn says.

His watermelon field is planted with rows of wheat between the rows of melons to operate as windbreaks. The weeds are kept down with herbicides, a pre-emergent and then post-emergent applied with a shielded sprayer. For the pumpkins, "We have been working on a no-till program. Two years ago, our cover crop didn't burn down fully and the pumpkins came up with weeds. We probably spent \$40,000 hoeing them free, with as many as 18 hoes swinging at a time. The pre-emergent timing is key to preventing that sort of disaster."

Kuhn's fields are nestled among conventional row crops, but he hasn't yet experienced damage from spray drift. "We haven't been hit with drift yet, but it scares me. A group of specialty crop growers in our area, including us, put an ad in the paper about how the use of dicamba can destroy our crops and our income," Kuhn says. "The loss of one of our fields of pumpkins would be devastating, so especially with dicamba, we're nervous. We have crop insurance, but it doesn't cover loss to spray drift."

Kuhn says he doesn't plan to keep growing the operation. "We are trying to switch to play smaller ball, and sell more locally and on farm." He has his reasons. "Up until this year, we were paid a premium for being local by most of our larger wholesale

customers. They ended that this year. While their marketing is local and organic everywhere, they are pulling away from local farmers, even those of us they have worked with for years," Kuhn says. "On top of that, they make a lot of demands of us farmers, such as needing us to be in their bookkeeping systems. We pay to be in their systems. This is an additional revenue stream for them. That on top of the GAP certification makes it expensive to continue to work with them."

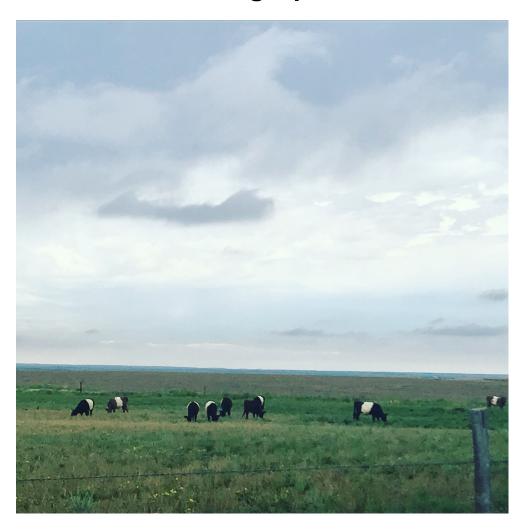
The consolidation of the larger chain warehouses has not been kind to grocery stores in western, rural Kansas. "Dillons, AWG and Wal-Mart are the main outlets and their warehouses have been consolidated over the last five years. West of us, they only have one warehouse. They're in a bad way. If you could make a delivery route work, then you could have fresh produce in the smaller grocery stores to keep customers excited and keep those smaller stores open. It will only get worse as it consolidates," Kuhn says.

Some changes are happening to help make the transition to being smaller and more local again. The farm has brought on Mark Stadler who is a full-time farm manager helping to make some of these transitions. This year is the first year the farm is trying trellised thornless Natchez blackberries. They planted 300 bushes, the first farm in North Central Kansas to try this method of growing for a you-pick target market. The farm also planted 8 acres of asparagus intended for retail markets.

These types of innovations are not readily available in education materials for growers across the state, however; a fact not lost on the Kuhns and Stadler. "We want to teach others how to do specialty crops and teach some of the topics where extension used to be in operation," Kuhn says. "When I was a student at K-State, I studied apples under a full-time pomologist. Students today don't have that opportunity. Today, the extension specialist Cary Rivard is one of the only resources people know of to turn to, and he's great, but the needs extend beyond his capacity. We need to bring more people in to share expertise, especially in the western half of the state."

After visiting with Kuhn, it feels that the specialty-crop market is gearing up for some big changes and big decisions. What is the type of market people want to access, and what type of farmers do growers want to be? Navigating the waters of wholesale versus smaller, localized markets—and establishing the proper distribution channels and fair regulations—will play a key role, along with creating the path for farmers to learn new techniques and connect with peers to make the (likely) necessary changes to build a sustainable, ecologically diverse food and farming system.

Traditional Methods Informing Modern, Diversified Farming Operation



The Isleys have incorporated diversity into their operation, combining raising pastured Belted Galloway beef, organic wheat and organic produce.

Nina and Jeter Isely manage 1,100 acres in the Northwest corner of Kansas, where they run a diversified operation that comprises heritage-breed beef cattle, organic wheat, fruits and vegetables. They market to local and coastal customers, as well as selling through the High Plains Food Co-op, which delivers orders to the Denver market. But living near Bird City, Kansas, was not the original plan.

The family lived and started raising children in Philadelphia, where Jeter held a job in corporate finance. Throughout the years, they returned to Nina's family home in Nebraska. A combination of wanting to leave "corporate America" and wanting to give their horse-crazy children a chance to experience rural living led them to purchase the farmstead with 320 acres, abandoned for 25 years before they bought it. When KRC visited in July 2018, the house and outbuilding had been renovated and expanded.

The couple, working with volunteer farmers-to-be from around the world, manages Y Knot Farm and Ranch, which includes two hoop houses and a couple of large garden plots of organic vegetables, raises organic hard red winter wheat, and pastures heritage Belted Galloway cattle for lean, grass-fed beef sold locally and to customers on the coasts. Although the vegetables were added as a way for the family to have access to fresh, organic produce—in limited supply at the stores in this part of the state—they have become a financially valuable part of the couple's farm income.

"The farm runs on three legs: wheat, cattle, and—although not planned—the produce. As people are becoming more health-conscious, we are seeing increasing sales," Nina says.

The Iselys chose to raise the Belted Galloway breed largely for the nutritional makeup of the meat the animals produce. "Genetically, the animals have no back fat," Jeter says. "This is the antithesis of your typical, commercial beef."

In 2017, the couple were the second largest registered Belted Galloway breeder in the country, with just more than 50 breeding head on pasture. The couple sells meat to Colorado, Nebraska and locally in Kansas, as well as to online customers who live on the coasts.

The organic wheat market requires the Iselys to work outside the conventional market. They keep bagged samples in cold storage to send out to brokers to find market opportunities. "We can't compete in the industrial, conventional market," Jeter says. "While the U.S. is great at producing cheap commodities for export, we are not great at producing the higher quality, value-added products. As a country, we are trending toward going in the red on agricultural imports versus exports as we sell cheaper products and purchase higher end food, such as organic vegetables and organic wheat."

"And it hasn't always been this way—Kansas has been a leading producer of fruits and vegetables, not just grains, in the past," Nina says.

Y Knot's products are sold directly by the farm and through the High Plains Food Co-op, which is a cooperative of producers in their area who transport and sell into the large Denver market. Direct sales, including the newer, local Fresh 7 restaurant and "informal" community supported agriculture programs (CSAs) take the rest of the vegetables. The majority of the meat is moved through direct sales.

"Families hear about the beef and we sell a family pack or a steak bundle pack and we typically ship, although some come to pick up directly. We sell both in bulk or specific cuts, depending on the customer," Nina says.

Diversity has proven key to sustaining the farm for the Iselys, as has looking to traditional farming methods and combining those methods with modern research to inform holistic, innovative approaches to their land and crop management.

"Close to when we started, we had a Kansas State University biologist visit to get us a 10- to 15-year plan. We asked, 'How do we combine farming while increasing wildlife, birds and yields?'" Jeter says.

As part of those goals, the Iselys are strictly organic, using crop and herd rotations, tree windbreaks, and replacing pesticides with black plastic, neem, diatomaceous earth, and seaweed fertilizer. They admit it requires more time weeding, but the couple only has one or two part-time helpers through the year and sporadic international volunteers through the World Wide Opportunities in Organic Farming (WWOOF) program. (The WWOOF volunteers stay in a small retrofitted outbuilding for extended stays, anywhere from a week to a full growing season; the Iselys provide room and board in exchange for labor.) The farm's diversity and holistic approach has led them to a number of unique approaches and unexpected partnerships.

The couple estimates that they have put in about 4,000 trees and bushes, with half of them planted in the past two years, as field windbreaks. They've planted about 25 different species across a total of 1½ miles of windbreaks, both near the house and out in their wheat fields. The Iselys are focusing on trees that have multiples uses, such as plum trees, nut trees, and Osage orange.

"For the windbreaks, we were supported by National Resource Conservation Service (NRCS) grant funding, to provide black plastic, drip watering systems, and a second well. The process took a while; it wasn't received well at first, because trees are considered to steal water from crops in conventional commodity crop farming. NRCS found research showing a 23 percent increase in yield in wheat fields planted with tree windbreaks, because trees will reduce evaporation in field out 12 to 15 times the height. A 50-foot tree will reduce evaporation for 1,000 feet. The trees reduce evaporation and breakage cause by wind, a big deal here." Jeter says.

The farm's high tunnels were majority grant funded by NRCS, and the Iselys added outof-pocket income to purchase sturdier components to withstand the winds in Northwest Kansas. "We made it four years with this hoop house and are just now going to replace the plastic cover, which is untypically long in this area," Jeter says.

Nina says that, in many ways, reaching out to K-State has been useful and their contacts have been supportive. "They helped us find organic seed potato growers in Colorado and even started our organic tomatoes at the university."

"Our neighbors ask a lot of questions and are curious. Overall, they've become supportive. They are curious about how long we will make it and develop. In the west part of the county a major producer is taking a portion of his operation organic now," Jeter says.

The farm is not without its challenges. "Profitability has been hard, and it's not for a lack of budgeting and planning. Grass-fed, grass-finished is a slow way to raise a beef to sale — it takes five years from buying a heifer to have your first dollar from selling meat,

and that makes a financial lag that's hard to plan with and make it through to the profitable side. Plus, in 2017, we lost multiple head of cattle to a mountain lion," Jeter says.

"Two years earlier, we lost a wheat buyer and were stuck with extra wheat to move. This year, we've lost 30 percent of our wheat crop to hail, which is better than a lot of others in our area but still a dig. And while we can typically sell our higher protein wheat for \$12 or \$14 a bushel, in years when the wheat has had lower protein it only sells for \$7-9 a bushel on average," Nina says.

Nina and Jeter remain committed to growing change and working with others in the region to create viable markets for specialty crops, grass-fed meat and organic grains. As the current President of the High Plains Food Co-op, Jeter has taken a front seat to making the Denver market a feasible option for Western Kansas growers. "This year, we've grown to delivering \$2,500 a week to Denver, from starting at \$50 a week last year. The hard part is that these are all volunteer deliveries, and because of hail damage to our recently purchased delivery truck, these volunteers are driving personal vehicles. It isn't sustainable," Jeter says.

Jeter and the co-op members recognize that volume, both in production and deliveries, would change the game—allowing the co-op to pay a delivery driver and purchase a distribution hub. They also envision helping to supply local grocery stores throughout Western Kansas, hoping to help keep them open by doing deliveries both to and from the Front Range. "We need an investor or foundation to help us move across this volume barrier into economic sustainability. We're right there, we know it will work, but we just can't push ourselves across the line," Jeter says.

The Iselys are managing their farm and land in line with their values for food and farming, and like many specialty crop and non-commodity-crop farmers, are paving a unique path to achieve their goals. The couple describes their neighbors as curious about what they are doing and are excited that someone they know relatively nearby is turning a portion of his production to organic. They will likely continue to face challenges and year-to-year frustrations as long as the markets favor large-scale, industrial monocultures. But, as evidenced by the various program and research support the farm has received, change is on the horizon.

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