



## Reading the signs: Agricultural Symposium examines labor shortages and long-term outlook

by: Su Bacon, Contributing Writer

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The Kansas City Fed's annual event explored labor's role in determining the long-range view for agriculture and related businesses, how policies will shape that outlook, and the potential for structural change.

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At Worley Family Farms in Monte Vista, Colorado, Bob Mattive grows 1,900 acres of potatoes – all harvested by machine.

Potatoes are grown, harvested, stored and packaged onsite. When they leave the farm, the potatoes are headed for a grocery store produce aisle. Although much of Mattive's direct supply chain is onsite, "there are the indirect impacts to our farming operation from labor shortages in other areas," he said.

Parts for tillage, tractors and other equipment may not be readily available and they take much longer to get. Mattive said he ordered a tractor early this year "and we won't see it until November."

Issues raised by Mattive, an executive committee member of the National Potato Council, were among those discussed by speakers, panelists and attendees to the Federal Reserve Bank of Kansas City's annual Agricultural Symposium titled "Help Wanted in Agriculture."

The two-day symposium at the KC Fed's headquarters May 23-24 explored the role of labor in determining the long-term outlook for agriculture and related businesses, how policies will shape that outlook, and the potential for structural change.

"By many metrics, the labor market appears to be unusually tight," said Esther George, president and chief executive officer of the Federal Reserve Bank of Kansas City. "The number of posted job vacancies is the highest on record. Hiring and retaining workers is an acute challenge."

And despite those challenges, Mattive remains optimistic about the future of agriculture.

"Throughout the pandemic shutdown, agriculture and most food producers and packing facilities remained in service," he said. "If we hadn't, I believe our country would have collapsed without food on the shelves. Agriculture kept America moving."

One way agriculture met the challenge was through different solutions for longstanding problems.

On Jeff Lakner's farm in South Dakota, for example, cattle aren't just livestock – they're perks.

His 420 head of Simmental and Angus are part of a “mini profit-sharing plan” offered along with competitive wages, health insurance and a retirement plan.

Employees buy cattle from Lakner's herd and co-mingle them on the Lakner Farms pasture.

Using Lakner's equipment and land, employees can earn a side income and grow their business to where they may expand on their own, though many choose to stay on the farm, said Lakner, a symposium panelist.

Lakner, 65, operates a fourth-generation grain and livestock farm of 5,200 acres in central South Dakota. Lakner says the labor shortage in agriculture is real: “There simply isn't a ready supply of available workers anymore.”

To attract workers farm owners are increasing wages and offering such incentives as childcare, community college tuition for an employees' children and health care onsite.

By all accounts, the dwindling supply of labor isn't new.

“The problem was exacerbated by COVID,” said Thomas Coon, vice president of the Division of Agricultural Sciences and Natural Resources at Oklahoma State University.

Coon referred to a 2015 Purdue University study that estimated 40% of new agriculture jobs were unfilled every year. A recent study projected 59,400 job openings annually from 2020 to 2025.

Workers who left the farm now are building houses, planting lawns, or serving food.

“With the recent housing boom, construction and landscaping are now competing with farmers for the labor supply,” said Diane Charlton Thronson, assistant professor in the Department of Agricultural Economics and Economics at Montana State University, and a symposium speaker.

## **Trucker shortage**

Solitude, independence and an “almost nomadic” lifestyle is how Craig Daniels describes his career as an over-the-road truck driver. Daniels hauls refrigerated freight for Crete Carrier Corp., which is based in Lincoln, Nebraska.

Daniels' rig attracts attention and respect. Some salute. Others wave a thumbs-up. A U.S. Army veteran, Daniels is a member of Crete Carrier's Patriot Fleet, all of which are driven by veterans. The black trucks feature bold images of an eagle, an American flag and decals representing every branch of the U.S. Armed Forces.

The company recruits veterans because their military experience serves them well as over-the-road truckers, said Tonn Ostergard, Crete Carrier's chairman and chief executive officer, and a symposium panelist.

"Veterans are reliable, and they are used to being away from home," he said.

Daniels spends five days at home in Georgia for every 21 days on the road.

Hiring veterans is one way Crete Carrier is filling crucial positions: "Our business doesn't move without a driver," Ostergard said.

Competition for drivers is keen. Companies moving freight must compete with Amazon and FedEx, whose drivers return home every night. All along the agricultural supply chain, employers are feeling the pinch of a nationwide farm labor shortage.

"Currently there is a shortage of 160,000 truckers," said Tim Richards, professor and Morrison Chair of Agribusiness at Arizona State University, who spoke at the symposium.

Other stakeholders and interest groups are also studying the farm labor shortage and recommending solutions. The National Potato Council, for example, recommends changes to regulations for both the truck driver and the truck. Recommendations include changing the age for obtaining a commercial driver's license from 18 to 21, relaxing regulations on the hours a driver can be in service and adding an axle to trucks to enable them to haul larger loads.

## **H-2A visa program**

Thronson said another solution to the farm labor shortage could be found in the federal H-2A visa program for foreign workers.

"Recruitment in the H-2A program grew 450% from 2001 to 2019," Thronson said, adding that "historically, H-2A has not been a very popular program."

H-2A allows U.S. employers to bring foreign workers into the country to fill temporary agriculture jobs. However, many employers find the paperwork cumbersome and the expense, estimated at thousands per worker, prohibitive.

A.G. Kawamura, a symposium panelist who owns Orange County Produce in California with his brother, said, “Immigrants are an essential part of the workforce, yet H-2A is an unwieldy, difficult program for American producers.”

Chuck Conner, president of the National Council of Farmer Cooperatives, and a symposium panelist, said, “It shouldn’t take a farmer with a lawyer and an accountant to navigate the bureaucracy to get workers across the border.”

The program needs to be streamlined and expanded, he said. Currently, H-2A visas are issued only for seasonal temporary work.

One place they don’t work is dairies, according to Alison Krebs, a symposium panelist and director of dairy and trade policy for Leprino Foods Co., in Denver.

“Dairies process milk 24/7/365 – all hours and on the weekend,” she said.

Krebs would like to see H-2A used for year-round work and food processing jobs.

Year-round work is one of the reforms to the H-2A program included in the Farm Workforce Modernization Act along with increasing the visas to three years and allowing workers to work for different employers or for the same employer in different capacities. The Act passed the House in 2021 but has not passed in the Senate.

Despite shortcomings in the H-2A program, its use has grown sharply, said Kristi J. Boswell, who cited an increase from 77,246 certified H-2A positions in 2011 to 317,619 in 2021.

The increase, however, is not a testament to how well the program is working but to “domestic labor instability,” said Boswell, who is an agriculture policy counsel for Alston & Bird in Washington, D.C., and a symposium panelist.

## Technology and automation

Automation is making harvesting easier, and the results are having a worldwide effect.

Kawamura said that without workers to hire, he is turning to automation to tend to the green beans and butternut squash Orange County Produce grows on 600 acres in California.

In 2019, 250 of Kawamura’s employees were hand-picking 500 acres of green beans. In 2020, 200 hand-pickers were replaced by five harvest machines. Fifty employees were retained.

“The competition for wages is the tightest we’ve ever seen,” Kawamura said. “We couldn’t compete for hand-pickers.”

The future of food and agriculture is digital, said Shari Rogge-Fidler, president and chief executive officer of the Farm Foundation, a national nonprofit dedicated to solving challenges facing farmers and agriculture overall.

The Farm Foundation is building an innovation and education center to prepare learners for a future in agriculture. The center, north of Chicago O'Hare International Airport, is expected to open in 2023.

Rogge-Fidler, a symposium panelist, describes the center as “a high-tech facility on a small, 12-acre farm.” Learners can study regenerative agriculture in a classroom, for example, and then go outdoors to connect what they've seen in the textbook to what they see in the topsoil.

The labor shortfall also affects higher-level jobs in management. To meet the need for a new set of skills in agriculture, early preparation in high school through such organizations as FFA and 4-H Clubs will be paired with new programs at universities such as the University of Arkansas.

“Agriculture is the No. 1 industry in Arkansas and as a land-grant university, we are educating the workforce for the ag sector,” said Deacue Fields, dean of the University of Arkansas' Dale Bumpers College of Agricultural, Food and Life Sciences and Division of Agriculture.

A new program will offer university students full-time internships on a farm plot of up to 4,000 acres to prepare them to be farm managers. And while learning technical skills is important, students also need classroom time devoted to critical thinking and soft skills.

“They'll still need to know how to write an email,” said Fields, a symposium panelist.

And while automation may ease the physical demands on workers, it won't eliminate the need for a mind behind the machine.

“One response to the labor shortage is to automate more,” Oklahoma State's Coon said. “But if robots are milking the cows, you'll still need someone to manage the robots - and the cows.”

A bit further into the future, however, is a day when machines will make all the decisions.

“We are shifting from automation of processes to autonomy,” said Kurt Coffey, vice president of Case IH, and a symposium panelist.

Machines are making the kinds of adjustments previously made by an operator.

During harvest, for example, a farmer climbs into a combine and pushes the “corn” button. The machine then sets controls for the sieve and speed of the fan and it continuously monitors field conditions to make adjustments as terrain or other conditions change.

Automation is arriving in stages. Full autonomy for all implements isn’t here yet but assisted autonomy is available now, he said. During harvest, for example, an autonomous grain cart follows a combine and collects corn cobs. As the operator unloads, the cart comes to the combine.

## Supply chain solutions

The addition of an onsite processing facility completed the supply chain for the Lockhart Cattle Co. in Jackson Hole, Wyoming. Calves now are born and butchered on the ranch.

“The cattle are never more than seven miles away from where they were born,” said Kelly Lockhart, 70, who owns and operates the sixth-generation family farm with his wife and son.

When the Lockharts’ beef is ready to go to market, they don’t go to a feedlot or a slaughter facility. The Lockharts take it there themselves.

“We have three avenues of distribution,” Lockhart said. “We sell directly to consumers online and at farmers markets. We sell to restaurants and to various grocery stores in our area.”

Although the shortage of truck drivers hasn’t directly disrupted the Lockharts’ supply chain agricultural supply chains nationwide have been stalled and slowed in producing, processing and delivering food to consumers.

That shortage has meant delays for farmers waiting for tractor parts, for grocers needing a delivery to re-stock shelves and for consumers who have ordered steak, fruit, weekly prepared meals or other perishables online.

Yet, the labor shortage in agriculture is more than trucks without drivers.

It’s the grocer waiting for a delivery needs a crew standing by to unload the truck and stock the shelves. Manufacturers need workers to make parts for agricultural equipment. Truck drivers themselves depend on others – to clean and disinfect the trailer after hauling cattle to market.

“The pandemic exposed the dependence of agricultural producers, processors and others in the agri-food system on manual labor,” Arizona State’s Richards said.

And in addition to the effect of the COVID-19 pandemic, the supply chain has suffered a second setback with the Russian invasion of Ukraine.

“For our grains, the invasion was a big disruption,” said Amy Hagerman, assistant professor in the Department of Agricultural Economics at Oklahoma State University.

“There is a lot of volatility and uncertainty now about the availability of sunflower oil and seeds, fuel and fertilizer – inputs necessary for ag production,” she said.

Closer to home, all links along the supply chain feel the shortage of labor.\

“The meat-packing industry is labor-intensive,” said Julie Anna Potts, president and chief executive officer for the North American Meat Institute, and a panelist at the symposium.

Immigrant labor and first-generation refugees have been excellent sources of labor, Potts said.

“In some meat plants, as many as 80 languages are spoken,” she said.

To attract and retain workers, meat packers are increasing benefits and pay, reaching out to refugees settling in their communities and reskilling workers as some tasks become automated.

Reskilled workers “may no longer be wielding a knife but instead operating a computer and monitoring data,” Potts said.

## On the horizon

Roger Cryan gazed into his crystal ball and saw the future unfolding for agriculture.

“American agriculture has every resource to grow and prosper and contribute to global food security – except for labor,” he said.

Cryan is chief economist for the American Farm Bureau Federation. His crystal ball is a computer screen displaying the federation’s economic analysis, market and policy insights as well as historical comparisons.

Although he can’t predict what will happen, Cryan imagines two different futures related to the labor shortage. Each depends on the availability of workers to fill positions along the agricultural supply chain.

One future is filled with fresh strawberries, the other, with bologna sandwiches.

“With a short-term and a long-term labor solution, America can feed the world everything,” Cryan said.

If U.S. producers have the workers they need, they will grow row crops and specialty crops and raise dairy and beef cattle.

Mechanization on the farm will continue and ag wages will rise.

The other future asks, “How much can we do without a labor solution?” In this scenario, “mechanized and low-maintenance agriculture dominates,” Cryan said.

Without enough workers, the U.S. still will produce grain, oilseeds and beef but may not be able to grow the more labor-intensive fruits, vegetables and nuts. For example, winter fruit and vegetables grown in Florida would be replaced with imports.

Because processing food requires less labor than handling fresh produce, there will be more frozen pizza and fewer fresh blueberries. In this future, producers will rely on and be limited by labor-saving technology.

One way to predict agriculture’s future is to “let the data speak for itself,” said Jim Heneghan, senior vice president of Gro Intelligence in New York, and symposium speaker. Gro Intelligence provides information and data, such as a global drought index that can be used to decide what to plant, when to plant, and even if to plant, anywhere in the world.

When Heneghan looks at the data, the future he sees has “fewer small farms and more consolidation.” If trends prevail, the average farm will be larger, and more farms will be corporate-owned with fewer farms family-owned.

To continue the growth in agricultural production and productivity, Cryan added, “a common-sense, immigration-based solution must be found to solve the labor shortage.”

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## Media



Monte Vista, Colorado, farmer Bob Mattive is member of the National Potato Council's executive committee. Photos by David Tejada



Crete Carrier Corp.'s Patriot Fleet of trucks are decorated with images that represent each branch of the military and are driven by veterans. Photo by Crete Carrier Corp.

Symposium panelist Shari Rogge-Fidler, president and chief executive officer of the Farm Foundation, said the future of food and agriculture is digital.

[https://youtu.be/xdDrT7ZsP\\_g](https://youtu.be/xdDrT7ZsP_g)

At the 2022 Agricultural Symposium, University of Arkansas administrator Deacue Fields discussed the role of academia in the farm labor shortage. Fields said a new program at the university will help prepare students to be farm managers.

<https://youtu.be/X2g1aZLmzGI>

Julie Anna Potts, president and chief executive officer for the North American Meat Institute, explained the labor-intensive nature of the meat-packing industry.

[https://youtu.be/XovD6f\\_Posg](https://youtu.be/XovD6f_Posg)

### **Voices from the 2022 Agricultural Symposium**

Nathan Kauffman, Omaha Branch executive, vice president and economist at the Kansas City Fed, discusses the ongoing issue of labor shortages in agriculture.

<https://www.youtube.com/watch?v=bFpp7r0Jmfl>

Chuck Conner is president of the National Council of Farmer Cooperatives.

<https://youtu.be/WW46EifNJDA>

Tim Richards is a professor and Morrison Chair of Agribusiness at Arizona State University.

<https://youtu.be/MKFnCCUKYvw>

Tim Richards of Arizona State University discusses the impact on consumers.

<https://youtu.be/YconX3asUTU>

Panelist Kristi Boswell is an agriculture policy counsel for Alston & Bird LLP in Washington, D.C.

<https://youtu.be/EJISoAC5Ki4>

Panelist Jeff Lakner operates a fourth-generation grain and livestock farm in central South Dakota.

<https://youtu.be/7Xaym4wPSPU>

“We are shifting from automation of processes to autonomy,” said Kurt Coffey, vice president of Case IH North America.

[https://youtu.be/s\\_PLEVSm9DE](https://youtu.be/s_PLEVSm9DE)

Kurt Coffey of Case IH North America

<https://youtu.be/nd7YSUMbOl0>