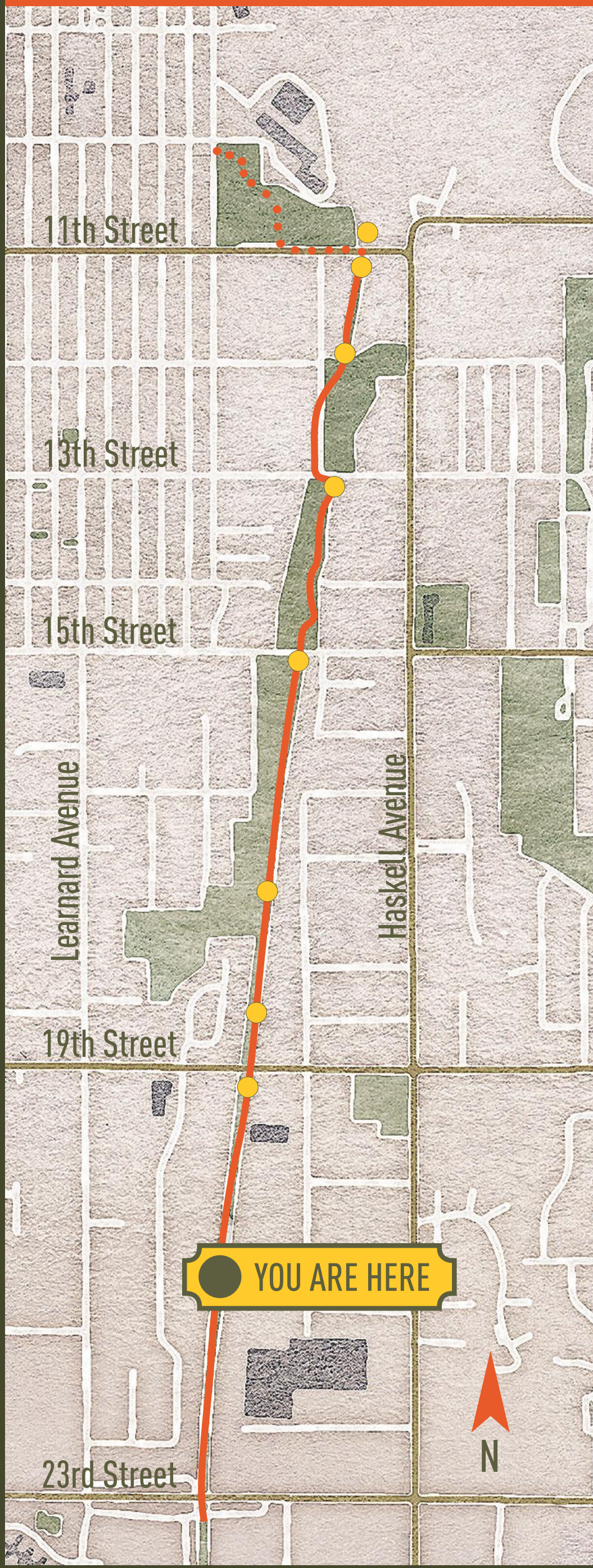


# GOING WITH THE GRAINS

## BURROUGHS CREEK TRAIL & LINEAR PARK



In operation since 1956 when the Burroughs Creek Trail was still a rail line, the ups and downs of the South Lawrence Co-op Elevator at 1941 Moodie Road offer insights into the changing agricultural economy of Douglas County

For most of its history, Douglas County was largely rural, with many small family farms. Much of the agricultural production entailed the cultivation of cereal grains – wheat for human consumption, corn for humans and animals, oats to fuel the all-important horses, and later soybeans (a legume treated as a grain) for food and industrial products.

Storage of the harvested crops was always an issue. At first, farmers kept grain in structures on their farms, but as time passed and production increased, buildings specifically designed to store grain from multiple farms sprang up. Taking the form of tall vertical bins or silos into which the crops were lifted, they became known as grain elevators. Elevators were initially constructed of wood, but as time went on, concrete became the building material of choice.

Individual business entrepreneurs were the first to build grain elevators, but soon the increasingly popular member-owned agricultural cooperatives – known colloquially as “co-ops” – came to the fore. In Lawrence, the local Farmers Cooperative Association built the grain elevator on Moodie Road in 1956.

*At one time, there were at least seven grain elevators in Douglas County.*

During the decades since, the steady growth of Baldwin City, Eudora, and especially Lawrence came at the expense of cultivated farm land. Thousands of acres were paved over or built upon. What was once an agricultural economy has changed to be one less and less oriented to farming.

A sizable portion of the agriculture that remains is characterized by specialty and niche products.

In 1955, the year before the South Lawrence Co-op elevator went into operation, the combined total of wheat, corn, oats, milo, and soybeans planted in the county took up more than 100,000 acres. In 1985, grain crop land had fallen to around 80,000 acres. In 2015, it was less than 70,000 acres.

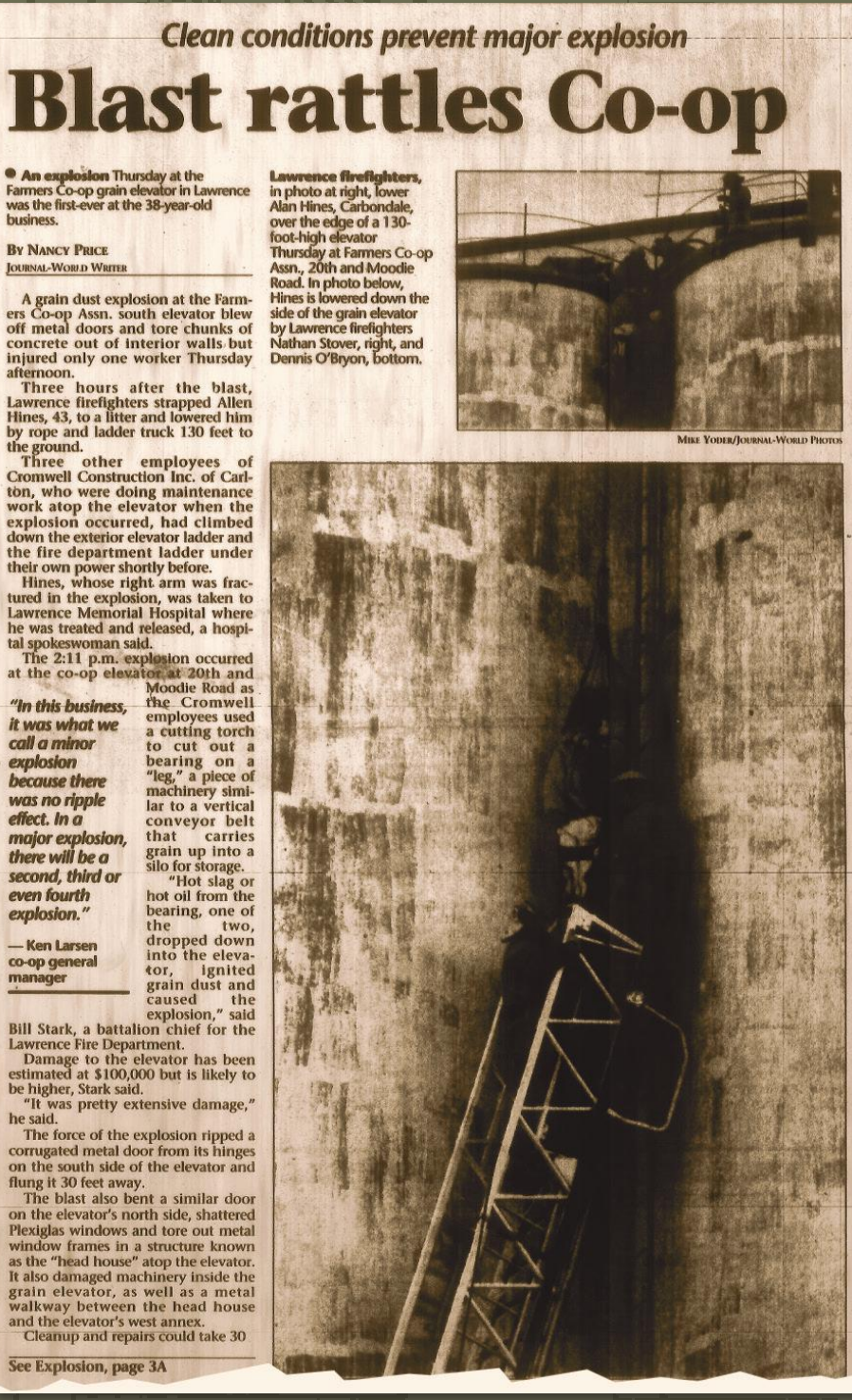
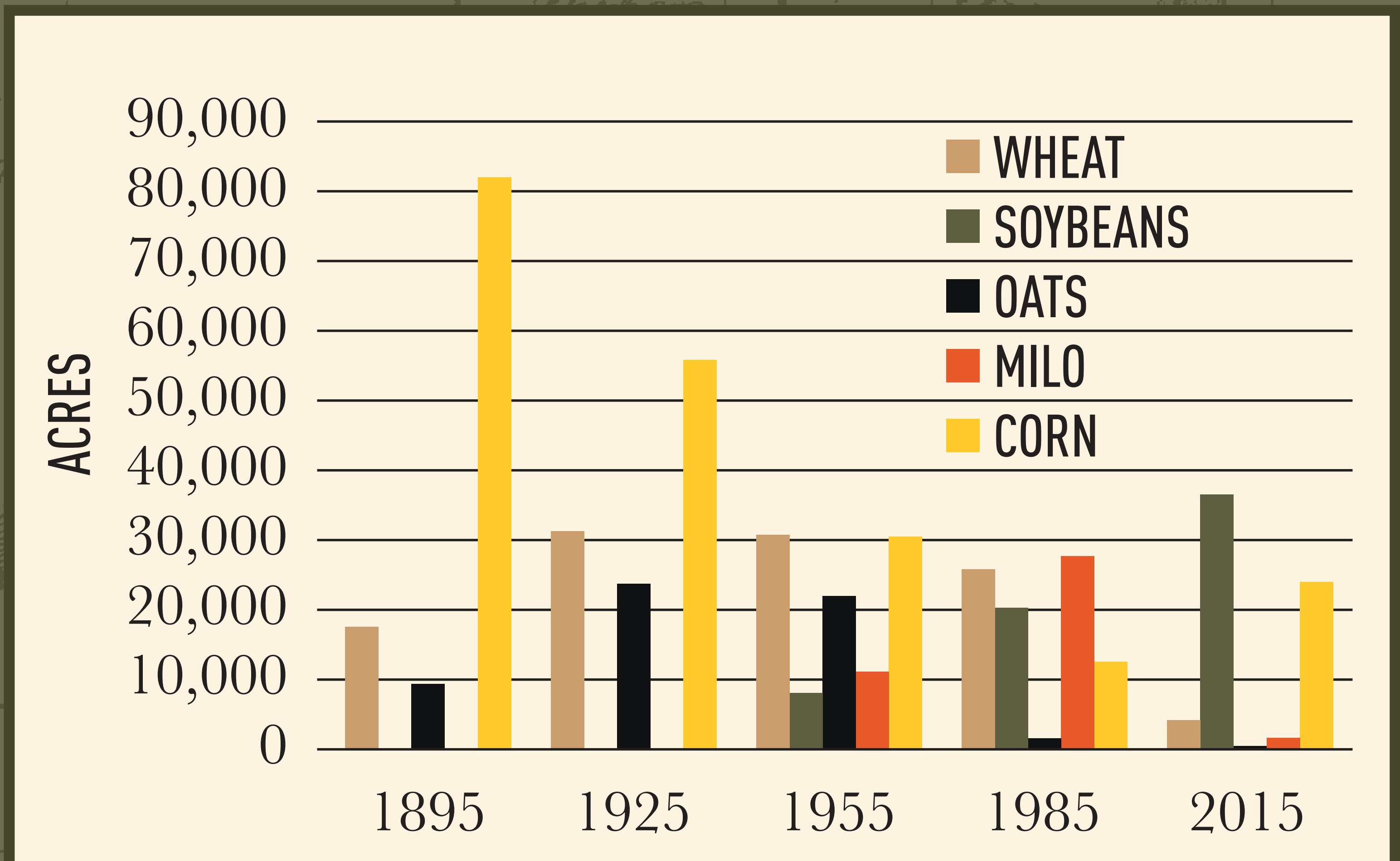
The number of Douglas County grain elevators has gone down accordingly. At one time, there were at least seven – one in Baldwin City, one in Eudora, three in Lawrence, one in Lecompton, and one at Midland Junction, all locally owned and operated. But the marked decrease in the production of grain in Douglas County led in turn to a reduced need for grain elevators.



**Grain Events.** Grain is harvested by combines, and then off-loaded into trucks with beds enclosed by tall wooden front, side, and back-boards. When a fully loaded truck arrives at an elevator, it is parked on a large scale and weighed. A small sample of the grain is taken to test for moisture content. If the grain is too wet, the load cannot be accepted until it has dried out. If the grain passes the moisture test, the truck is driven into a small building with a floor that includes a large metal grid. The truck is positioned so that the rear of the truck is over the grid. The truck's back-board is opened. Its hydraulic lift raises the bed to dump the load. The grain flows out and falls through the grid, down a short chute where it is carried away underground by a conveyor belt or auger. When the process is completed, the truck is driven back onto the scale where it is weighed again. The difference between the full and empty truck is the weight of the grain that was unloaded. The truck is then driven back to the field to be refilled and the cycle repeated. All the grain of a particular type is mixed and stored together. Wheat is harvested in the late spring, oats in mid-summer, corn in early autumn, and soybeans in mid-autumn.



**Going Up.** In the early 1950s, there had been a shortage of grain storage in Douglas County, so several projects to build additional capacity were developed. One of these was the Farmers Cooperative Association elevator to be located on 4½ acres, south of 19th Street along the right-of-way of the Santa Fe Railway line to Ottawa (part of which is now the Burroughs Creek Trail and the Haskell Rail-Trail). The Co-op launched a fundraising drive to pay for it. The cost was \$117,000 not including equipment. Construction began in April 1956 and was finished by July of that year. Comprised of six cylindrical concrete grain storage silos 113 feet tall and topped by a 35 foot tall “head house” containing operating equipment and machinery, the 148 foot tall elevator had a capacity of 150,000 bushels. Sometime later, an additional eight concrete silos were constructed that increased capacity to 412,000 bushels, and in 2015, a large steel storage bin was added, resulting in a total capacity of 621,000 bushels.



**A Major Dustup.** Grain dust is flammable. The movement of grain through the various machines in an elevator can cause large amounts of grain dust to become airborne, and if the concentration of dust in the air rises to a critical level, it can be ignited by any spark or flame that comes in contact with it, which will cause an explosion. Grain dust explosions can be catastrophic, sometimes destroying the entire elevator and occasionally killing workers. On the afternoon of Thursday, February 10, 1994, several workers at the South Lawrence Co-op Elevator were using a cutting torch on the roof of the head house. At 2:11 p.m., hot metal dropped down into the elevator and ignited grain dust. The subsequent explosion blew off metal doors, tore chunks of concrete from interior walls, and damaged machinery. Several men were nearly blown off the top of the elevator, but only one man was injured. He was lowered 130 feet to the ground by Lawrence firefighters, taken to the hospital, treated, and released. Although none of the stored grain was harmed, the cost of repairing the damage approached \$250,000.

**From Corn to Soybeans.** Corn, which previously had been planted by various Indian tribes in Kansas, initially was the dominant grain crop in Douglas County. But by the 1950s, the acreage of corn diminished, and a new crop, soybeans, had appeared on the scene. Milo, or grain sorghum, which was used primarily for livestock feed, also became more popular. By the 1980s, corn acreage had fallen below that of wheat, and oat production had nearly disappeared. Soybeans continued a steady rise in acreage. By 2015, wheat production had fallen to its lowest level since early in the history of the county, and a side effect of this was a scarcity of straw bales. Soybeans had become the dominant crop, with its acreage surpassing the total amount of land devoted to wheat, corn, oats, and milo combined.



**A Word on Wheat.** For thousands of years, wheat was harvested by hand. Stalks were cut with a sickle, spread on the ground, and beaten with hand-held flails to dislodge the wheat from the heads. The grain was tossed into the air, allowing the breeze to blow off the chaff and winnow out the grain. By the mid-19th century, mechanical reapers were becoming popular. A reaper was pulled behind horses and a rotating horizontal reel similar to a steam boat paddle wheel pushed the standing grain stalks into a horizontal cutting bar. The stalks were then conveyed to the end of the reaper where they would be tied together in stacks called wheat shocks. Shocks were thrown into one end of a threshing machine that beat the grain loose from the straw and blew off the chaff. The grain was directed to an exterior storage bin while the straw exited the machine at the far end to be used as fuel or baled into straw bales. As farming became more mechanized, the combine harvester was invented to simultaneously perform the actions of the reaper and the thrasher. First pulled by horses or tractors, they are now all self-propelled. As in the reaper, a rotating reel pushes the standing stalks into a cutter at the front of the combine. The stalks are carried into the combine where the grain is separated from the straw and the chaff, and conveyed into a hopper. The straw is ejected from the back, to be scattered behind the combine or baled into straw bales. When the grain hopper is full, the combine off-loads the grain into a wagon or a truck. The grain is taken either to storage bins on the farm or to a grain elevator.

## AMPRIDE



## Cooperative to sell local headquarters

**Bankruptcy also puts Ampride store on block**  
By Matt Fagan  
The Bankrupt Farmers Cooperative Association is preparing to sell its Lawrence headquarters, and when the state's superior court approves, the state's superior court will sell the state's superior court at Moodie Road for commercial development, said Dave Dunbar, FCA's president and chief executive officer.  
The property will be sold about \$100,000, Dunbar said. The property is located at the intersection of 19th Street and Haskell Avenue and is no longer used for grain storage. Dunbar said. A dividend of \$100,000 will be paid to the members of the cooperative, Dunbar said. The state's superior court will sell the property to the highest bidder, Dunbar said. The property is located at the intersection of 19th Street and Haskell Avenue and is no longer used for grain storage. Dunbar said. A dividend of \$100,000 will be paid to the members of the cooperative, Dunbar said. The state's superior court will sell the property to the highest bidder, Dunbar said.



**User-Owners.** Cooperatives are member-owned organizations in a wide variety of business sectors that enable their owners to achieve economies of scale unobtainable on an individual basis. Farmers form cooperative associations to purchase and distribute seed and other agricultural supplies, and to handle harvested grain by building and operating grain storage elevators. Customers do not have to be a member to do business with the co-op, but only members share in the profits. At harvest time, farmers have three options. They can contract in advance to sell their grain directly to larger elevators run by national agro-businesses such as ADM or Cargill, they can sell to the co-op elevator that will then pool the grain together for sale to larger elevators, or for a fee, they can store their grain in the co-op elevator until they are ready to sell. As the number of co-ops has consolidated over time, a good portion of grain storage and distribution has been taken over by independently-owned grain elevators not associated with a co-op.

**Last Ones.** By the 1990s, the Farmers Cooperative Association began to experience financial difficulties. The 1994 grain dust explosion added to an already challenging business situation. The co-op eventually declared bankruptcy. The Ottawa Cooperative Association of Ottawa, Kansas, purchased the elevator in 2001 and continued its operation. By 2016, only three grain elevators remained in business in Douglas County – two in Lawrence, and one at Midland Junction, all owned by Ottawa Co-op.