



►JK Ranches near Griggsville, Ill., has been setting trends and turning unique into practical for generations.

Innovative gestation barn enhances cow-calf operation.

Story & photos by Barb Baylor Anderson, field editor

You never know where you might find that next great idea. Perhaps nestled on a remote ranch within the rolling hills and river bottoms found between the Illinois and Mississippi rivers.

JK Ranches near Griggsville, Ill., has been setting trends and turning unique into practical for generations:

- ► An all-girl, horse-riding, cattle-moving crew? Check.
- ► Hunting rights and a rentable hunting lodge in the basement of the main house? Check.
- An innovative cow gestation barn designed with cow and people comfort, safety and efficiency in mind?

"This is the first gestation barn in the Midwest with a deep pit," says Jack Kirk, who works with son, Jarrod. JK Ranches has been in the family since the 1880s, and today consists of about 1,600 acres of rolling timber and pasture used for their cow-calf and Quarter Horse enterprises, as well as row-crop production and whitetail deer and turkey hunting opportunities. Jack also has been building barns in Illinois and Missouri since 1972, currently as Longhorn Cattle & Swine Confinements Inc.

The new gestation barn is a $62-\times 188$ -foot (ft.) monoslope building completed in November 2016. The single-slope roof covers six, 50-head pens and concrete feedbunks that run the length of the pens on the longer south and north ends of the barn. Waterers are on the south end. Total capacity is 300

cows or 400 market steers, but it was built with room to expand the barn to handle 600 cows.

At the west end of the barn is a work area, which allows Jack and Jarrod and other members of the family operation to manage cattle through a tub; a





double alley, which dumps into a single alley; and finally a squeeze chute. The alleys can be adjusted to manage cattle from 300 to 1,800 pounds (lb.).

"The work area is designed for humane and stress-free handling. We want to avoid injuries to people and animals, and try and prevent scaring any animals," says Jack.

The higher end of the monoslope faces south, allowing the sun to shine all the way through the barn during the winter. An opaque filon solar panel meets up with a protective overhang along the south roofline to accommodate the sunlight and protects the wooden trusses.

Overhead doors can be closed on the east and west ends of the barn, although Jarrod says generally the east door is left open.

Moveable curtains are located on the outside of the north end of the building to use as needed. The ceiling is designed for air to move through the barn and prevent moisture

buildup and remains comfortable even on a hot summer day.

Versatile barn

"The main purpose for the barn is gestation. It's a good environment. Every cow is housed here during the winter," says



►All of the concrete slatted floors and the area directly in front of the concrete feedbunks are covered with black rubber slats.

Barn a good fit for Angus

While a few Charolais cows can be found at JK Ranches, three-quarters of the herd consists of purebred, registered Angus cows. Jarrod focuses his genetics selection on calving ease and docility for both his own cows and the cattle he markets primarily to local commercial cattlemen. He replaces any cull cows with his own heifers, and also sells cow-calf pairs in the spring.

"We concentrate on selling breeding bulls locally. We try and offer quality seedstock bulls for commercial fatcattle producers who want a fast rate of gain right away," says Jarrod. "I do study EPDs (expected progeny differences) and monitor birthing and weaning weights when determining the best program."

Poss Easy Impact is a bull Jarrod says has provided great growth potential for their herd. He also uses as their leadoff bull Hoover Top Cut P412 and has a Barstow Cash son that helps meet their commercial goals.

Jarrod. "This allows us to have all 230 cows in one location for observation during calving season, mid-February through May. Once the cows calve or are ready to calve, they go across to our 100-ft. $\times 200$ -ft. calving barn set up for calving groups."

The barn does get additional use. During the summer, the Kirks were housing a group of 2-year-old bulls prior to sale, along with market steers. Creep gates on the larger gates of each pen allow calves the independence to come and go from the pen. The space is used for culling cows and replacement heifers, and can be used to background some calves.

"We can bring cows into the barn when there is not enough or too much grass, too," says Jarrod. "When it is dry and we don't have enough forage, we move them into the barn and feed them until the grass is ready. Or

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if there is a lot of forage, we will feed them inside and bale the hav."

Cost for the building was about \$490,000, or about \$1,100 per steer or \$1,400 per cow.

Better feed management

One of the advantages of the facility is the ability to improve feed efficiency. Jarrod works with a nutritionist to set up the best rations for minimal feed waste.

"When we feed cows on pasture from hay rings, there is a lot of waste," he says. "In the barn, we feed the cows twice a day with a ration containing ground hay, shucklage and some corn. It is much easier on us versus the hay rings, also. We can feed in about 10 minutes."

Jarrod says 22-23 cows per pen can eat

from a bunk at one time, although more aggressive cows push to the feedbunk first and root through the ration to find the corn. Although there are bunks on both sides of the pen, he finds the cows prefer to eat from the bunks on the south side unless the weather is excessively hot. Then they will move to the bunks on the north side.

Environmental edge

All of the concrete slatted floors and the area directly in front of the concrete feedbunks are covered with black rubber slats. Jack added more slats than are generally used in a finishing barn — another 12 feet outside the building — which is on top of the 10-ft. pit.

"Since the sun can shine all the way through the barn, that helps dry the slats, so we do not have to wash them or clean up any dry-pack manure," says Jack. "The slats extend out of the building, so we get some rain into the pit and don't have to add water to pump it out. We have three areas outside the barn with concrete lids that can be removed to pump the cattle manure."

The Kirks plan to pump the pit once each fall, although Jack says he estimates they can go 14-15 months between pumpings. The liquid manure is enough to fertilize 100 acres per year, saving \$15,000-\$20,000 in commercial fertilizer costs for their row-crop enterprise.

"All of the manure is self-contained in the pit. We have a stream down the hill but we don't worry about contamination. We have no runoff, so we can protect the environment," says Jack.

Improved herd health

The design of the rubber slats also lends itself to nearly eliminating foot and leg issues. Plus, the design of the barn maximizes air movement and minimizes fly problems.

"Herd health is outstanding. The cows are more uniform and we are better able to maintain good body condition scores through the winter," says Jarrod. "One time this winter we had a few snotty noses. Adding sulfur to the water cleared it up in one day. The cows are comfortable."

"The barn works just as we hoped, and is a concept that could work anywhere," says Jack.

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Editor's Note: A former National Junior Angus Board member, Barb Baylor Anderson is a freelancer from Edwardsville, Ill.

JK girl power

It's not unusual to see an all-girl work force at JK Ranches. Jarrod's four oldest daughters, ranging in age from 15 to 19, provide most of the labor with the cattle.

Allison, Natalie, Faith and Hope do everything from rounding up the cattle with their

horses to managing animals through the work room, to maintaining 2:30 a.m. cow checks during calving season. Younger daughters, Whitney and Daya, are not far behind, learning as they go.

"The girls ride rodeo, so they are comfortable moving cattle with the horses. That's the way it has always been done here," says Jarrod. "With all of the gating in the work room, the girls are protected from any injury while moving the cattle."

"The new area makes it easier and quicker for working cattle through the tub, down the alley, and into the chute. It's safe for all of us involved, including the animals," says Natalie.

Allison attends college in Estes Park, Colo., and will pursue mission work following graduation. The other girls may be involved in the farm long-term, but none have decided for sure.





► From left, Jack and Jarrod Kirk's working crew consists of Jarrod's daughters Whitney, Natalie, Hope, Daya, Allison and Faith.