

HAVE IT YOUR WAY

Five fenceline hay feeders provide options for your operation.

Story & photos by Becky Mills, field editor

Isn't winter hay feeding fun? There's the mad dash to open the gate and leap back on your tractor, drive through the gate, leap back off the tractor and get the gate closed before the hungry herd dashes out on the road. Then there is bogging and slipping in the mud, snow or ice while you try to move the hay ring, all the while praying you don't back over a calf.

If you're like many producers, you're doing the whole bit by headlights because you have a full-time off-farm job.

The folks at Eden Shale Farm are here to help. They've built, and use, five types of fenceline hay feeders.

Becky Thompson, director of the Kentucky Beef Network (KBN), which manages the Owenton, Ky., cattle farm, says, "When cattlemen come to the farm, they can compare and contrast the feeders to see which one fits their operation and budget."

When Steve Higgins, director of animal and environmental compliance for the University of Kentucky research farms, designed the feeders — which the Eden Shale folks refer to as cubbies — he had you and your cattle in mind.

"I wanted to create a functional design to first, save time; second, to create a better environment for the cattle; and three, to make money for the producer," he says.

He also made sure he has a hay feeder within your budget. All but the fifth hay feeder are designed to hold two round bales and can be expanded to fit a producer's needs. The fifth hay feeder is a one-bale model.

If you can't get to Eden Shale to see them in person, not to worry. Here's a description of each, along with an approximate cost. Since most producers are do-it-yourself (DIY) kind of folks, labor costs are not included.

Feeder No. 1

The first, the luxury model, has a 6-inch (in.)-thick, 8-foot (ft.)-by-10-ft. concrete slab to keep hay off the ground. The concrete is grooved to provide better traction for the cattle. Two 10-ft. metal feeding panels hold the hay on the long sides, an 8-in. metal panel gate is on the fence side, and an 8-ft. feeding panel is on the remaining short side. A metal monoslope roof covers the works.

The cost is a little over \$3,950.

Feeder No. 2

The second cubbie is identical to the first, but doesn't have a roof. That shaves close to \$400 off the cost, for a total of approximately \$3,550.

KBN industry coordinator Dan Miller, who spends half his working hours at Eden Shale, prefers one of these first two models.

"Concrete is a little more expensive to install, but longevity

makes it a better investment," he says. "Whether or not you put a roof over it depends on how fast your cows eat hay. If they eat fast, you can leave off the roof."

Feeder No. 3

The third cubbie has wooden feed panels instead of metal. Geotextile fabric, rock and a plastic grid take the place of the concrete surface.

The cost for this structure is a bit over \$4,050.

Feeder No. 4

The fourth cubbie is just like the third one but with a gravel and geotextile center pad minus the interlocking plastic grid.

"If you use a Bobcat to clean out the feeders, it will tear the geotextile fabric and unravel it," he says. "We've already seen a depression in the ground where we don't have the plastic grid."

However, you can turn on the concrete and plastic grid with no problem.

This cubbie costs a little more than \$2,400.

Feeder No. 5

The fifth cubbie, the economy model of the group, features two-thirds of a standard hay ring mounted in the fence. It also has a gravel and geotextile center pad, but no interlocking plastic grid, like the fourth feeder.

The cost is around \$1,340.

Higgins says the concrete, rock and grid are the largest expenses with the cubbies, but like Miller, he says they pay in terms of longevity, as well as mud and manure management.

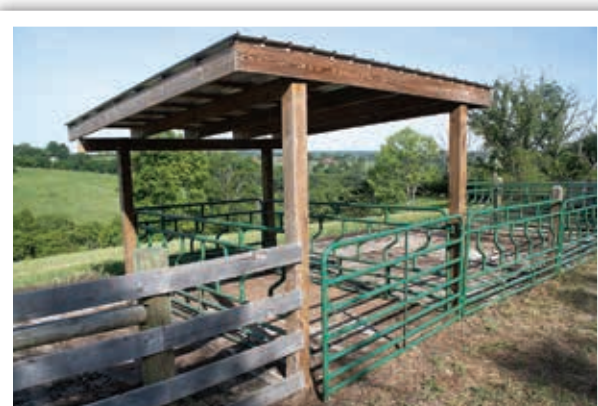
He also says the dimensions can be changed to fit the needs of the producer and the availability of materials. If you can't find an 8-ft. gate, no worries. Step up to the next size and adjust the design as needed.

Location

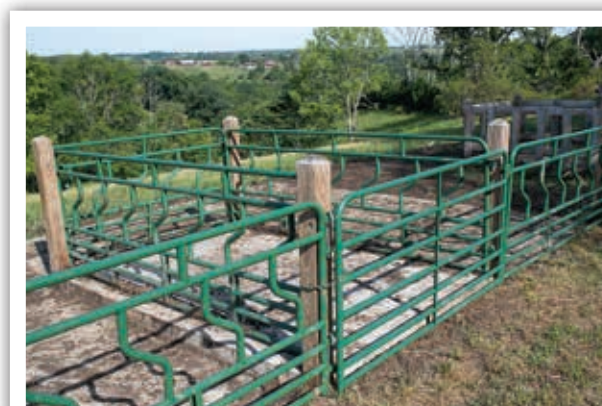
There is another decision that should actually come first. Higgins urges producers to pick the right location. At Eden Shale, they put the fenceline feeders where they



Steve Higgins designed the fenceline hay feeders at Eden Shale to make life better for the cattle and producer.



Feeder No. 1 — The fenceline hay feeder with a roof and concrete floor provides a safe environment for cattle.



Feeder No. 2 — The fenceline hay feeder with a concrete floor gives cattle better traction while they are eating.

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were previously feeding hay, but he notes, “It was a mess for the cattle and the producer.”

It is on a steep hill, and whoever was putting out hay had to worry about the tractor slipping off the hill.

He says the location does have its advantages for fenceline feeders, though. For starters, it is a short distance from the hay barns.

“The farther distance you have to haul hay, the more dysfunctional the system becomes,” he observes. “Less time spent on the tractor, a shorter distance traveled, and staying on a gravel road all add up to winter-feeding efficiency improvements.”

The steep hill also means the site is well-drained. In addition, there is a gravel road right beside the fence, and now that the tractor doesn’t have to go in the pasture, there is no more slipping, sliding or escaped cows. In addition, there is a tree line across the road, which serves as a windbreak.

“The only problem we

had was a two-hole waterer next to the feeding stations,” says Higgins. “Don’t put water within 150 feet of a feeding station, or cattle won’t leave the area. Then you’ll have more manure to clean up.”

To remedy the situation, the Eden Shale crew developed a spring a bit farther away. They now shut off the waterer in the winter when they’re feeding hay.

Spacing

Once you’ve decided on the location and type of hay feeder that will work best for you, think about spacing if

you’re putting in more than one. Higgins left 20 ft. between cubbies.

“I wanted 8 feet for a cow and 4 feet for a pregnant cow to pass behind without getting squeezed,” he explains. “We can get at least 12 critters around each structure.”



Becky Thompson, director of the Kentucky Beef Network, says producers are welcome to compare the hay feeders at Eden Shale to decide which one best fits their operation and budget.



The hay feeders are located next to the gravel road from the hay barn, making hay feeding easier and safer in wet weather.

That also allows space to add portable feedbunks if you’re supplementing with a byproduct or concentrate feed.

Details

Higgins urges producers to remember the details, too; especially ones that affect cattle well-being.

“We used threaded eyebolts,” he says. “They transfer weight from the pin to the 6-inch-by-6-inch posts.

Plus, they are recessed, so the cattle can’t get hurt on them.”

He also designed the feeders so cows have to

stretch their necks a bit to reach the hay inside.

“If she drops hay outside the feeder, it becomes waste,” he explains. “You

also want her to get her head in a grazing position. That increases saliva flow, which increases rumen function.”

Cost

If the cost of a hay feeder makes you wince, Higgins emphasizes it

actually saves money.

“When you’re feeding hay on the ground, there is 37% to 58% waste. It can go up to 97% waste,” he says. “When you’re feeding a roll in containment, there is 20% waste at the most. We’re

probably getting 7% waste here.”

He estimates a hay-feeding station saves \$100 a cow for a 90-day hay-feeding period.

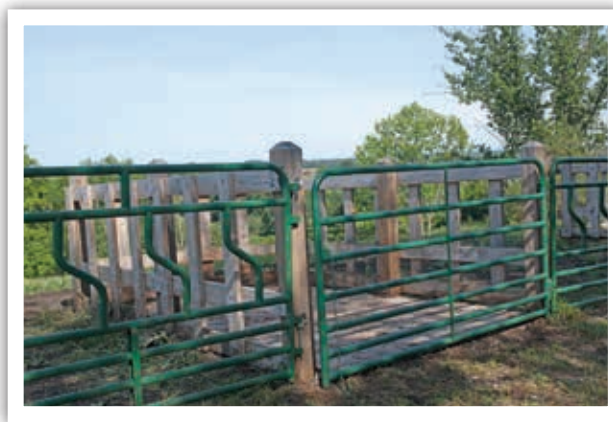
“We save money, we save time, and it is a better environment for the cattle,” he says. “Plus, tractor slide is dangerous.”

There’s another bonus as well: The manure you scrape off the all-weather surface of a hay feeder can go back on your pastures.

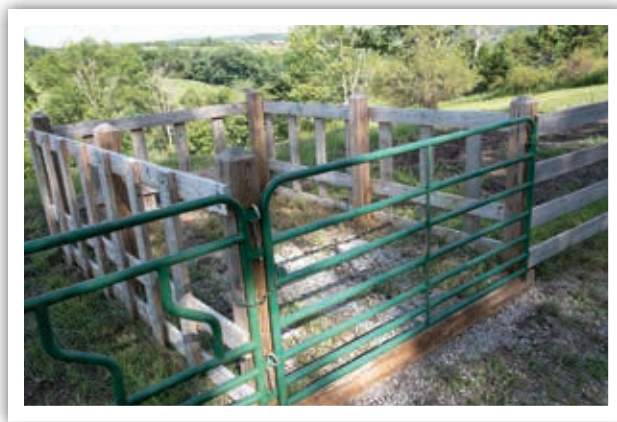
“That means there is a yield response in the forages, and an increase in organic matter,” says Higgins. “Then we get more grass.”

If you’re still not convinced, the

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Feeder No. 3 — The fenceline hay feeder has wooden slats and a gravel, geotextile and plastic grid surface.



Feeder No. 4 — This fenceline feeder has wooden slats and a gravel and geotextile surface.



Feeder No. 5 — Hay feeder five uses two-thirds of a standard hay ring to keep cattle from wasting hay.

hay feeders may qualify for cost-share money. If you're in Kentucky, there may be money available from the County Agriculture Improvement Program (CAIP).

Says Thompson, "It allows farmers to make investments on their farms in facility improvements like waterers and hay feeders, and in genetics."

If you're in another state, check with your local Natural Resource Conservation Service (NRCS).

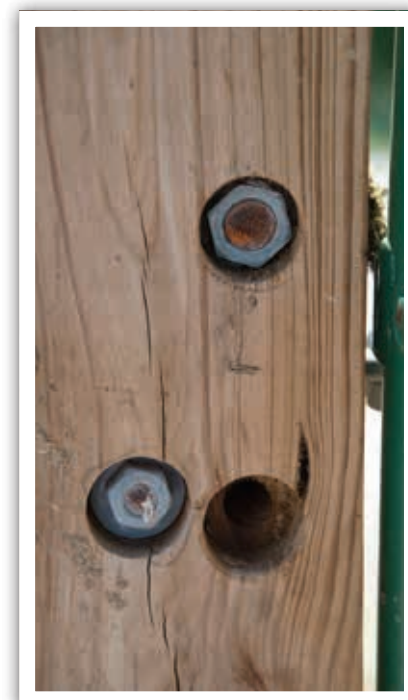
Add it all together, and that luxury model is looking more affordable all the time. |



Left: The hay feeders at Eden Shale are close to the hay barns, which makes hay feeding more efficient.



The interlocking plastic grid works with gravel and geotextile fabric to create a durable surface for heavy-use areas.



The bolts in the fenceline hay feeders are recessed, so cattle can't hurt themselves by rubbing next to them.

Editor's note: Becky Mills is a cattlegirl and freelance writer from Cuthbert, Ga. For more information on Eden Shale Farm, see www.edenshalefarm.com. For more information on the fenceline hay feeders, as well as more of Steve Higgins' designs at Eden Shale, see www.uky.edu/bae/higgins.

Eden Shale: Real-life learning

What do you do when a 956-acre farm falls in your lap? Out of necessity, you make it self-sufficient; and, since it's your job to help cattle producers, you build it into a demonstration farm for real-life learning.

That's the position Becky Thompson, director of the Kentucky Beef Network (KBN), found herself in during 2012 when the University of Kentucky (UK) closed the Eden Shale research farm because of budget constraints.

When UK offered the farm to KBN, the managers of KBN, an arm of the Kentucky Cattlemen's Association, voted to let KBN manage the farm.

"One of our producers said if we can't take a free farm and make it work, none of us should be doing this," Thompson recalls.

The deal wasn't as rosy as it sounds, though. For starters, the Eden Shale soil type, after which the farm was named, and the steep terrain don't lend themselves to bragging-rights production. That's why the farm exists in the first place. Back in the 1950s, Kentucky producers asked UK to start a research farm to help them learn to deal with those challenges.

"The farmers in the area contributed a penny an acre for every acre of Eden Shale soil type they had on their farm," says Thompson.

If the soil type and terrain weren't challenging enough, all that came

with the farm when it was transferred to KBN were a few buildings, a John Deere Gator and one baler. Everything else was sold at auction.

To be a demonstration cattle farm, they obviously needed cattle.

"Probably one of the biggest controversies was our leadership didn't want us to compete for good cows in an unfair way," Thompson says. So, KBN sent order buyers to eight different stockyards in central Kentucky.

"We didn't have any money, so we had to buy the poor ones," says Thompson. "We've come a long way in five years, though. This year we calved out 88 cows and heifers."

To upgrade, they use artificial insemination (AI). All females are AI-bred one time. The colored cows are bred to an Angus bull, and the black cows are bred to a Hereford bull. All of the clean-up bulls are registered Angus.

"We want our farm to look like an average farm in Kentucky, and we want our cows to be reflective of commercial cows in Kentucky," Thompson stresses.

She adds, "We want our practices and demonstrations to be low-cost, practical demonstrations that producers can take home and do tomorrow."

As of last summer, more than 1,500 producers from 109 Kentucky counties and 25 states have visited the farm and participated in or viewed Eden Shale projects and demonstrations, which range from water harvest and storage systems to preconditioning methods.



Eden Shale Farm is managed by the Kentucky Beef Network and serves as a demonstration farm for producers.