

When building a cattle-handling facility



LITTLE THINGS CAN MAKE A BIG DIFFERENCE

by Troy Smith, field editor

According to Dean Fish, it takes “a few big things and a lot of little things” to make a cattle working facility really useful. The former Arizona Cooperative Extension educator currently manages Santa Fe Ranch, near Nogales. He’s also a member of the National Cattlemen’s Beef Association Stockmanship and Stewardship team, which presents educational sessions on cattle handling and facility design. Fish says the “big things” producers need to consider when designing their own working facilities are safety, functionality and economy.

“As I get older, I think more about safety for the handlers and for the cattle,” explains Fish. “Of course, a working facility has to be functional. Cattle need to flow through the system, and not get hung up at certain places. Economics also matter. You don’t want to waste money on things that you don’t need, but good facilities and equipment can be a good investment.”

Fish says paying attention to the “little things” can make a big difference. They shouldn’t be ignored, because they collectively contribute to safety, functionality and economy.

Location, location

In full agreement are beef extension specialists Ron Lemenager and Stephen Boyles of

Above: Far from fancy, this setup still affords safety, functionality and economy. The chute (which includes an automatic head-catch) and the palpation cage were purchased “used” at farm sales.

Purdue University and Ohio State University, respectively. Both Lemenager and Boyles have helped design cattle-handling facilities for operations large and small. Along with Fish, they believe location may be the biggest little thing to consider when planning an outdoor working facility.

A key factor in choosing a location is accessibility. Selection of a site that is easily accessed when cattle are brought in from pastures seems like a no-brainer, but there are other considerations associated with accessibility. Proximity to a well-maintained road determines how easily the site can be reached by trucks and trailers. Accessibility

— under various weather conditions — adds a large measure of convenience.

“Sometimes convenience can be a double-edged sword,” warns Boyles, noting how easy access could be a security concern, inviting mischief-makers or thieves.

Easy access by unauthorized persons might also be a biosecurity risk.

“Producers also ought to think about whether a site that’s convenient for them might be too close to neighbors,” adds

Boyles. “A small producer with an off-farm job might work cattle in the evenings or on weekends, when the noise, dust, odors and flies could be a real nuisance to a nearby neighbor that’s holding a backyard bridal shower.”

In many and perhaps most cases, access to utilities — electricity and water — will be required. Consider whether the site affords sufficient drainage, and whether proximity to shelter belts or existing structures will help or hinder facility use. Maybe they offer protection from winter wind, but where is snow likely to drift? Can you still catch a breeze when working cattle on a hot day?

Producers may want to consider how the potential growth of an operation might affect the usefulness of a working facility. If aspirations include increased cow numbers or additional enterprises, there may be a need, someday, for



In this simple processing area, a sorting alley leads to a Bud Box that feeds a single-file alley leading to a squeeze chute with a palpation cage. Both new (prefabricated pipe panels, some gates) and repurposed materials (railroad ties, bridge plank, used gates) were used in construction.

more or larger pens. Does the site allow for expansion?

Facility design

Time invested in designing the layout of facilities can save time later, every time cattle are handled, along with decreasing the chances of injury to cattle and handlers.

Prefabricated fence panels, made of pipe or wire mesh, are available through farm and ranch suppliers.

Producer preferences for durability and appearance typically influence choice of building materials, but final decisions are often based on budget constraints.

According to Fish, some producers consistently work cattle safely and without any fuss using facilities that aren’t extra stout or fancy, but were economical to construct. He attributes their success to good stockmanship.

“I do think that when we think our facilities are

really strong, there sometimes is a tendency to apply more pressure and crowd cattle more,” opines Fish. “Stronger fences may make us poorer handlers.”

The number and size of pens needed for a cattle-handling facility will depend on the size of the operation. A basic facility for a small cow-calf operation, for

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“It’s worth the time you take to plan placement of gates so it helps rather than hinders cattle flow. Think about which corners should have gates, which end should be hinged and which way each gate should swing.” — Stephen Boyles

Before construction begins, a producer must choose materials. The options are numerous, ranging from wood posts and lumber to all-steel systems. Corrals and processing areas can also be custom-built from repurposed materials such as oil field pipe, sucker rod or highway guardrails. Repurposed railroad ties and power line poles often serve as posts.

example, would likely include a catch pen large enough to contain gathered pairs and two or more smaller holding pens for sorted groups of cows or calves.

Boyles recommends allowing 34 square feet (sq. ft.) of space, per pair, for a catch pen (20 sq. ft. per cow plus 14 sq. ft. per calf). Smaller holding pens can be sized according to their planned use. A sorting alley extending from one corner of the catch pen will aid in sorting groups into smaller adjacent holding pens. While a sorting alley width of 14 ft. is often recommended when cattle are sorted from horseback, Boyles prefers a 12-ft. width when sorting on foot.

Lemenager agrees.

“Twelve feet is the magic width dimension for me,” states Lemenager. “You want to be able to let a cow come by you, and 10 feet is too narrow. You’re going to be in her flight zone, and she won’t want to go by. Fourteen feet may be too wide when you’re on foot, making it hard to stop the cow you want to turn back.”

In a simple system, a sorting alley may also serve as the means for moving cattle to a processing area, which may consist of a sweep tub or a Bud Box for directing cattle into a single-file alley that leads to a headgate or squeeze chute.

Tub or Bud Box?

In almost any room full of cattle folk, debate can easily occur over whether a tub or a Bud Box is the better choice. Each has advantages and disadvantages.

“I think most producers could build a Bud Box on their own. It’s relatively easy and economical,” says Lemenager. “You’ll have to be

pretty handy to make a tub, so most people would have to hire it done or buy a commercially manufactured tub. Either way, it’s probably going to cost more than a Bud Box.”

Fish says an advantage of a tub is that it usually requires less stockmanship skill to use. Moving cattle from the Bud Box to the single-file alley generally requires

“Stronger fences may make us poorer handlers.” — Dean Fish

the handler to be inside, with the cattle. It’s a job for someone who understands animal behavior and handling principles.

A tub usually can be operated from outside and, thus, may be safer for less cattle-savvy handlers. So, the skill level of the people likely to be processing cattle could be a factor in choosing the most appropriate system.

The lead-up

Another potential topic of debate is the length of the single-file alley leading to the chute. Fish says many producers dislike having to reload a lead-up alley frequently, so they want a long alley that can be filled with cattle waiting for their turn in the chute.

However, animals frustrated by long waits in close quarters may become balky or agitated. Either way, it can interfere with orderly processing.

“Long lead-up alleys are good for larger operations that have crews processing a lot of cattle pretty quickly,” advises Fish. “For smaller operators, working without much help, a 20-foot alley is usually sufficient — long enough to load

three or four cows at a time.”

A lead-up alley needs to be wide enough to allow easy passage, but narrow enough to prevent animals from turning around. It’s hard to construct a single lead-up alley that accommodates a variety of animal sizes.

“For the small cow-calf operation with limited dollars, I’d recommend building the alley for cows,” says Boyles. “You can rig an apparatus to narrow it down for calves, or you could build a separate calf alley.

“Adjustable alleys are commercially available, too,” he continues. “It just depends on how much you’re willing to spend.”

Solid or see-through

Another subject of contention is whether the fences in processing or loading areas should be solid-sided to prevent animals from seeing outside distractions. Like a harness horse wearing blinders, cattle in a solid-sided lead-up alley can see only straight ahead. However, see-through sides constructed of spaced planks or pipe can be useful to handlers trying to move cattle through an alley.

“I like the cattle to be able to see me, so I can move along the outside of the alley to initiate their movement,” explains Fish. “But there may be places (in a system) where a solid side would help prevent distractions that stop cattle flow. You can try fastening tarps to the fence to see if a solid side helps cattle flow better.”

Most experienced users of Bud Boxes agree that a solid side at the rear (opposite the entry gate) is undesirable. Cattle may balk at the entry gate if they are unable to see through the rear fence.

However, many producers prefer

the entry gate itself be solid. When closed, it then presents a barrier cattle cannot see through, encouraging them to turn into the lead-up alley opening.

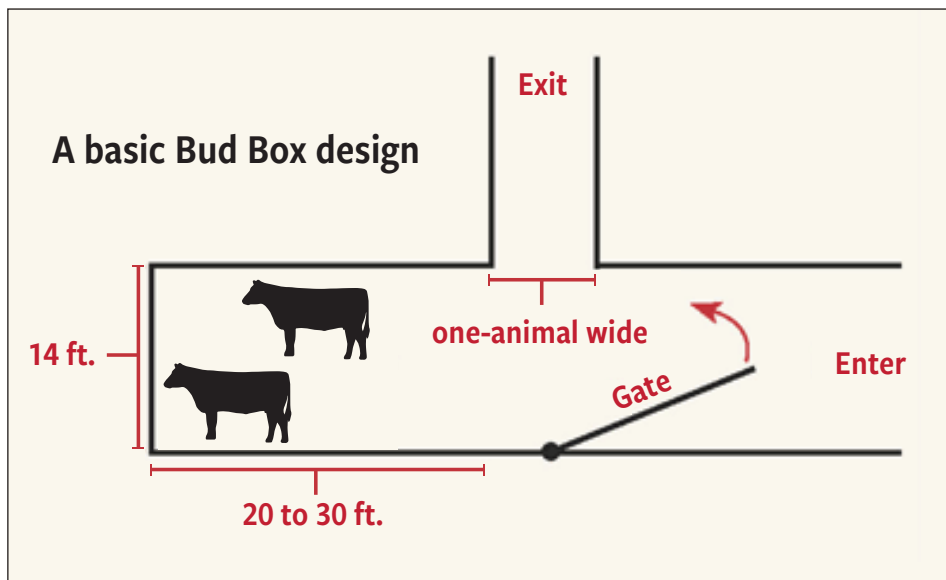
The catch

At the business end of the alley, producers will want to install equipment necessary to restrain animals individually. At the very least, they will need a headgate, but most will want a chute providing a safer, more secure level of restraint.

“Nearly all manufacturers offer basic models that will work for smaller operations that don’t need a lot of bells and whistles. Mainly it needs to be safe and easy to operate. I would recommend using a chute with an automatic head-catch,” offers Fish. “I’d also recommend installing a palpation cage behind the chute. It’s more than a convenience. It allows you to safely get behind the cow in the chute, with a gate between you and other cattle waiting in the lead-up alley.”

The flow

Boyles tells producers that long before setting posts and constructing pens and alleys, they need to ponder how they want cattle to flow through the facility. Try to avoid problems stemming from orientation with the sun, or construction features that cast shadows and create situations where cattle balk. Consider the time of day you will work cattle most often. The bright spots and black holes created by light and shadow will be different in the afternoon



than they were in the morning.

Also think about gates. In Boyles’ experience, many producers have built cattle-handling facilities and later wished they had included more gates or located them differently.

“It’s worth the time you take to plan placement of gates, so it helps rather than hinders cattle flow. Think about which corners should have gates, which end should be hinged and which way each gate should swing,” says Boyles.

“Consider using slam-latches,” adds Lemenager, referring to spring-loaded bolt-action latches that lock when the gate is shoved into the closed position.

He warns, however, that the protruding striker pin (bolt) can be a hazard when a critter tries to squeeze past a partially opened gate. Slam-latches with large-diameter pins are less likely to cause injury in those situations.

Portability

Lemenager suggests that instead of constructing a permanent cattle-handling facility, some people may be better off with a portable

system. An example might be a producer whose operation includes multiple pastures located some distance apart, such that cattle cannot be driven to handling facilities located at a centralized site.

“I use a lot of portable stuff myself, moving it when we move the cows,” tells Lemenager. “Portable facilities give you flexibility. You can adapt it to the space available and figure out what configuration works or change it until it does.”

Lemenager admits that working cattle in a portable setup would not suit everyone, but neither does a state-of-the-art permanent facility guarantee success. He, Boyles and Fish agree that cattle-working crews most often achieve harmonious outcomes when they apply effective stockmanship.

“Facilities don’t have to be fancy to work,” Lemenager adds. “And you can get by with far less when you use good stockmanship.”

Editor’s note: Troy Smith is a freelance writer and cattleman from Sargent, Neb.