



BARN
STORMING
IDEAS
Contest

BARN IMPROVEMENT

Here's how three Angus breeders renovated their barns into useful, economical and safe havens for their prized bovines and, in one particular case, for themselves. In recognition of their innovative ideas and extraordinary efforts, each has been named a winner in Angus Journal's first Barnstorming Ideas reader contest.

These breeders' barn renovation projects are featured on the following pages, complete with photographs, history, detailed plans and cost estimates. All agree it was worth every dime, headache and muscle strain, for they discovered that preserving the history and character of an old, classic barn is both satisfying work and an economically viable option.

— *Jerilyn Johnson*



From Varmint Hole to Multi-Purpose Cattle Barn

JOHN & JOANNE REED
Bar J Ranch
Brooten, Minn.
Classic Barn, Calving Facility,
Sale Barn

Total cost = \$30,000 over 15-year period

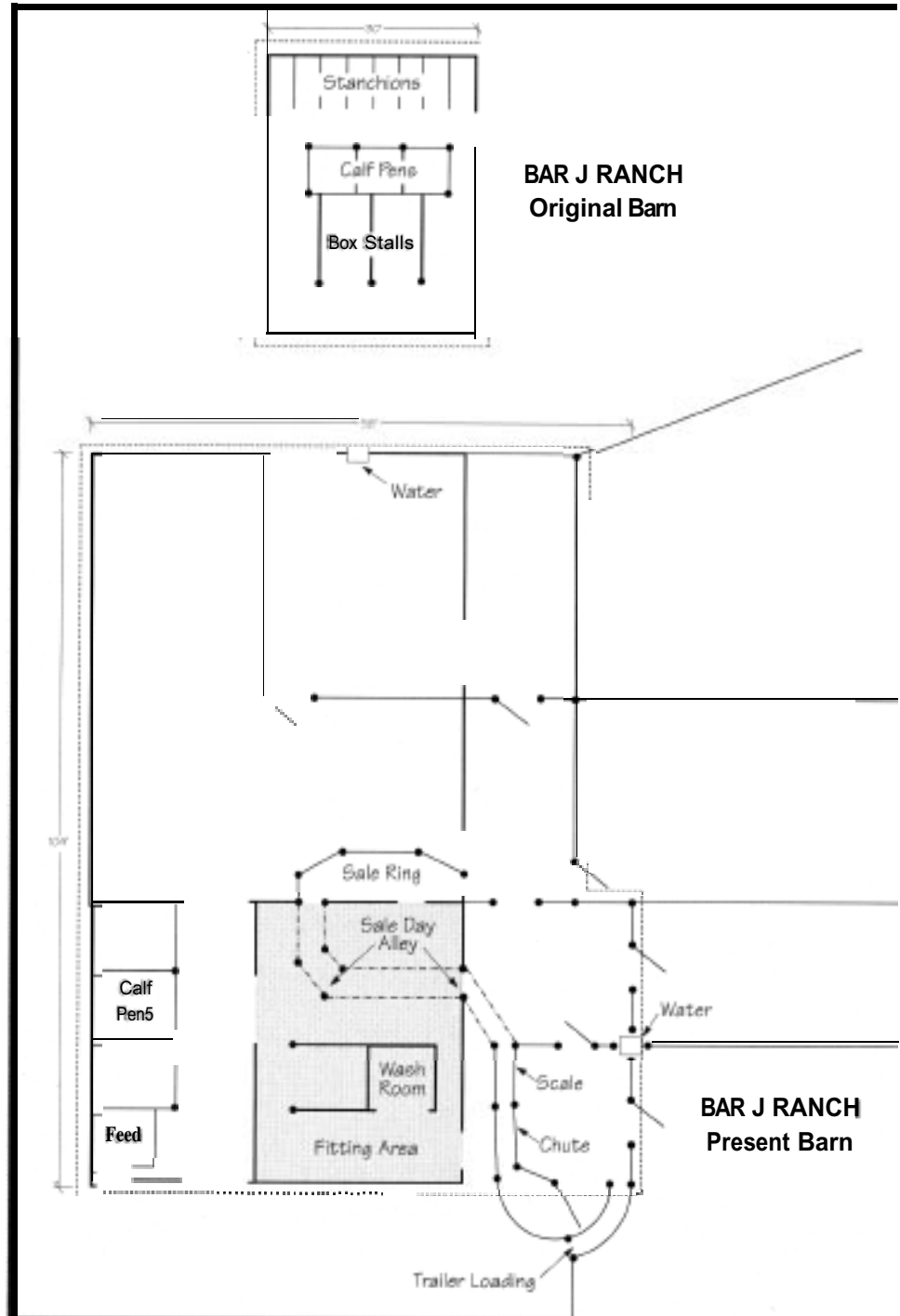
The story of our barn begins in 1981 with the purchase of what was eventually to become Bar J Ranch. The only structure on the property was an old, dilapidated 30 x 40 foot barn. It was home to a flock of pigeons and other assorted vermin. The roof was full of holes and the haymow floor was rotted in places, but the structure was basically square and sound.

The decision to remodel the barn was an easy one as it was the only original building left and we wanted to preserve the history of this place.

While not real practical for a beef operation, we appreciated the valuable hay storage in the mow and envisioned the potential as a warm barn for a few calving pens. The barn eventually became the nucleus of our entire cattle working facilities and calving center.

Stage One — Face Lift

Our first job was roofing the entire barn, replacing rotten floor boards and removing the rotted hay door in the mow. Several coats of paint gave the barn new life. With most of our own labor and approximately \$2,000 in materials, we had a functional structure.



Water lines were soon added and corral lots were built around the barn. At this time we were wintering first-calf heifers at this location.

Stage Two — Expansion

By 1986 we were forced to move our entire cow herd to this ranch and more facilities were needed. A 24 x 40 foot wing was added on each side of the barn. The north side was totally enclosed and insulated, while the south side was open sided and used for our working facility. Portable panels were used for calving pens and holding areas.

The additions and the west end of the original barn were steel sided and some remodeling done inside the barn as time and finances permitted. This included a wash rack and fitting area for show and sale cattle. Approximate cost of stage two of our project was \$6,000.

Stage Three — More Expansion

With increasing cattle numbers, a 24 x 64 foot shed was added to the northeast corner of the barn in 1988. This gave more shelter and holding areas during our calving season, which is often accompanied by severe winter weather. More water pipes and tanks were added, and cement pads and corral lots expanded.

Approximate cost for stage three of our project was \$7,500.

Stage Four — Sale Ring

In 1994, anticipating a fall production sale, we decided to complete the facility. The roof on the 1986 addition was extended to a peak and continued south for a 46 x 64 foot final building project. An entire 54 x 64 foot area can be totally enclosed in severe weather with the 1988 and 1994 additions. Open sheds on the south side provide excellent shelter for newborn calves or shade in the summer



Renovation work on Bar J Ranch's multi-purpose barn was completed in 1995. This 78 x 104 foot facility features calving stalls, a sale ring and cattle handling facilities.

for show cattle. And to top off this project, a sale ring was built, which can double as a calving pen.

Approximate cost for stage four of our project was \$15,000.

Built to Last

Our completed cattle facility is very multipurpose. Portable panels are used extensively during the year to confine various groups of cattle. Two frost-free water fountains can each service as many as four groups of cattle. Additional hydrants are located nearby.

Portable bleachers are assembled for sales. The cattle are funnelled through the working area and old barn to the new sale ring.

The barn can also store hay or machinery. Open windows on the north side allow cool breezes through the barn in the summer which makes it comfortable for show cattle. Almost the entire barn can be cleaned with a skid steer loader.

Our 78 x 104 foot facility was built for less cost than the original 30 x 40 foot barn could be built today and has served Bar J Ranch well.



The original Bar J Ranch barn was 30 x 40 foot and looked like this prior to 1981.



The Bar J Ranch sale facility, complete with auction ring, block, portable bleachers and extra lighting was added on in 1994.



Cal and Susan Kinney's newly remodeled and renovated barn-house fits right in with its surroundings — the scenic Rocky Mountains and the Grand Mesa Plateau of Colorado.

Home on the Range

CAL & SUSAN KINNEY

**Rocky Mountain
Angus Ranch
Crawford, Colo.
Classic Barn**

Total cost: \$150,000

Last spring we decided it was time to build a home on our Colorado ranch. After looking at the only building on the property — a livestock barn — we decided it would be more economical to build a living quarters in the barn loft until we could build our dream house.

We drew a floor plan and gave it to our contractor, Chuck Olson. Then we moved into a mobile home we located

next to the barn, and the building process began.

The renovation project took us three months from start-up in April to move-in day in July, with a total labor force of seven, including Cal.

The barn has a total space of 5,500 square feet. The remodeled living area includes 2,100 square feet. The upper level consists of two bedrooms, a large bathroom, two separate vanities, walk-in closet, plus an open kitchen, and living and dining rooms with vaulted ceiling.

Five dormer windows were added, along with four skylights, stucco walls and bull-nose corners. The kitchen and bathroom feature blue ceramic tile and knotty pine flooring. Aspen wood trim was

added around all the doors.

A two-sided gas fireplace made of river rock was constructed on the upper level of the barn. It heats and adds a cozy atmosphere to both the living room and master bedroom. The remodeled portion of the barn is also heated with baseboard hot water heat, which is clean burning and energy efficient.

The entryway is on the lower level. This level includes an office, third bedroom, laundry room and bathroom. The remainder of the lower level was left as is for hay and equipment storage, and three calving stalls. A 6 x 6 foot diamond-shaped window was installed on the west lower level wall to let in more light.

Olson, our contractor, and

his apprentice Dave Woolly used 2 x 6 inch framing and sheet rock for the exterior wall construction. The approximate building cost, including outside landscaping, deck, fencing, corrals and gates, was \$150,000.

Our barn home has a spectacular view of the Rocky Mountains to the east, the Grand Mesa Plateau to the west, and a full, panoramic view of our ranching operation and Angus cattle.

We did the interior decorating ourselves and had great fun, with only a few arguments to settle. Our barn-house turned out so beautiful, we might just decide to stay!



The barn's east side reveals its corrals, dormer windows and skylights. The large, diamond window hadn't been installed on the south wall at this stage.

The Kinney barn and property before remodeling.



View of kitchen and informal dining area, looking over the stair top which leads to the lower level.



Large dormer windows and skylights in the living room and formal dining room area provide a great view of the nearby Rockies.



After construction cleanup, the lower level of the barn's south side was left as is for hay storage and calving pens.

Beefed Up Dairy Barn

**GEORGE GUNN
CANDICE GUNN**
Dry Hollow Farm
Southampton, Mass.,
Classic Barn, Calf Shelter,
Energy-Efficient Barn
Total cost: \$1,594

Dry Hollow Farm has belonged to the Gunn family since 1886. Our great-grandfather purchased the farm to make maple syrup, grow produce and to peddle dairy products in the nearby cities. Our grandfather decided to just produce milk and eggs.

In 1948 a fire destroyed the house, the adjoining barn and other outbuildings. After this, our parents took over and rebuilt the farm, adding a registered Holstein herd. In 1991 our father had a stroke and we took over the farm. We keep Dry Hollow Farm

functioning, my brother and I decided to raise beef cattle and discovered Angus was the perfect breed choice.

Along with building a quality beef herd, we decided to upgrade our 1949 stanchion dairy barn and convert it to a free-stall setup. The 150-foot barn runs north-south.

Attached to the barn's east side are a grain auger and a 100-ton cement stave silo with a silage unloader. The south door of the barn leads into a barnyard with an outdoor water tank where cattle can be contained if needed.

The barnyard connects to four pastures, three of which have been fenced for beef animals using a Gallagher-Snell Power Fence. Long-range plans include modifications to the fencing to allow for more intensive rotational grazing.

Inside the barn are cement mangers that were covered with a plastic liner in 1990, making for a virtually self-

cleaning feeding area. The floors are concrete, with a gutter and barn cleaner that runs the full length of the barn. We can scrape waste material from the center aisle into the gutter and easily clean the side areas.

At the south end of the barn is a large calving pen, and opposite that is a steel pen with a headgate working chute. At the barn's north end is another steel pen.

Renovating our barn allowed us to ease and/or modify various parts of the dairy farm that would be impractical or too expensive to build new.

Our business plan for the transition to a beef operation had three major goals:

1. Develop a quality beef herd.
2. Do it with zero debt and minimum renovation costs.
3. Create a facility which permits us to care for our herd with maximum efficiency and flexibility.

We didn't need to reinvent

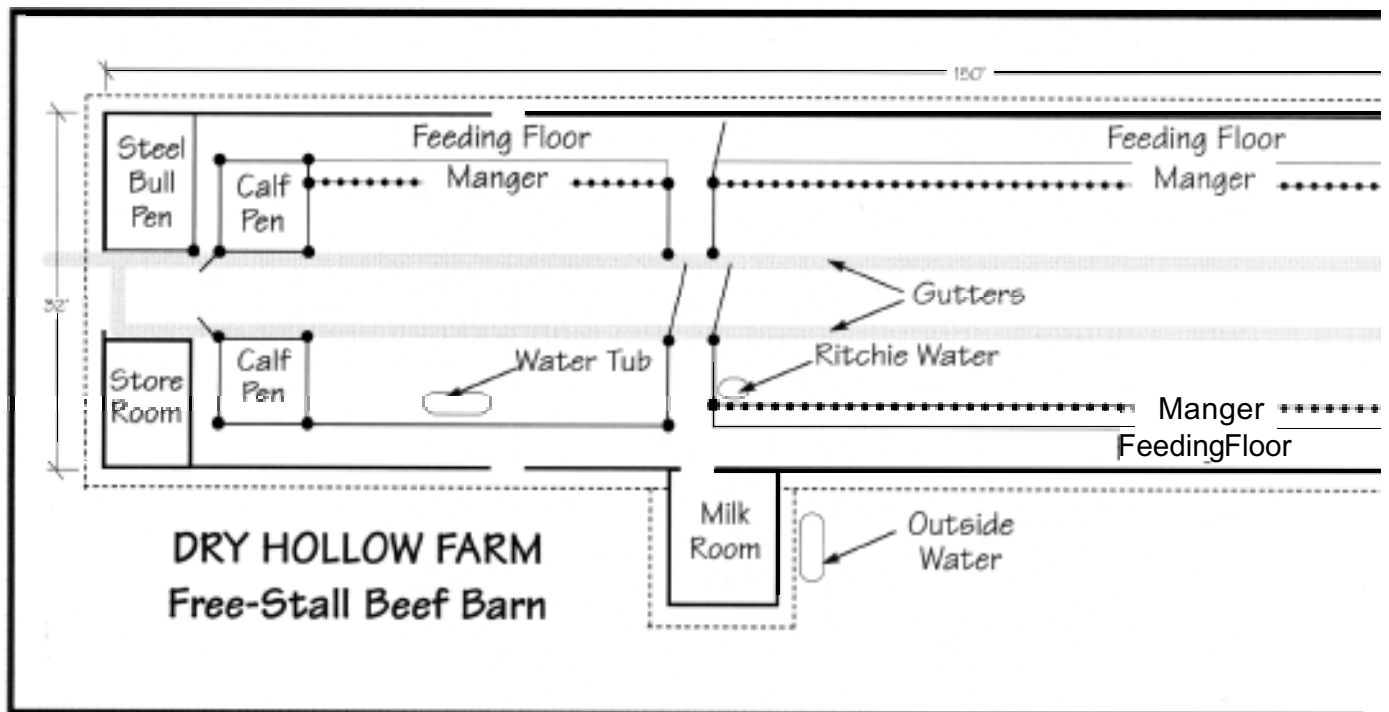
a successful herd management system; we just had to make a few modifications.

Stage One — Remodelling

The first change to take place was to convert the stanchion barn into a free-stall barn. Our barn naturally divides itself into a 100-foot section and a 50-foot section with walkways in between. We chose to use the 100-foot section for our main herd; the 50-foot section for weaned calves.

We removed the stanchions on the barn's east side to form a feeding area. Two rows of planks were nailed across the stanchions on the west side to form a wall. In 1988 we had taken down our wood stave silo and had stacked the staves under cover for future use. They proved ideal for our barn renovation project.

The thought behind the walled feeding area was that the cattle could eat on one side



and use the other to lie down. At the top of the feeding floor is a latch gate that prevents the smaller calves from escaping should they climb through the manger. At the other end of the feeding floor is a self-closing swing gate which connects to the center area. This gate swings out so we can easily get from one place to another. Its other advantage is that, if the calves climb onto the feeding floor, one person can drive them back to the center aisle by directing them to the gate. They push against it, it opens outward and the calves are back with the rest of the herd.

Stage Two—Water

Our next concern was water. Even with a closed barn full of cattle, water pipes and water bowls would occasionally freeze in the winter. We invested in a Ritchie insulated waterer. This was connected into the existing plumbing underground to provide year-round water under cover.

The water system for our 50-foot weaning facility was a little bit trickier but more cost effective. We used an old



This dairy stanchion barn at Dry Hollow Farm in Massachusetts was recently renovated into a free-tall beef barn. Recycled material, along with improved watering system and handling facilities make this barn more functional.

bathtub for the water tank. A hose was connected to a faucet in the old milkroom. The connection is low to the ground so it can easily be heated by one or two heat lamps depending on need. The hose then is gradually elevated to a peak outside the milkroom and then declines to the tub. The hose is insulated with Styrofoam tubing. When the bathtub is filled with water, the hose is turned off. The excess water still in the hose then drains into the tub or back to a valvecock in the milkroom, which prevent the hose from freezing. We also installed a heat lamp over the water tub to help keep it from freezing.

Stage Three — Handling Facilities

Our next major renovation project was adding metal gates, both new and used, to improve our cattle handling facility. We can use three

gates in our weaning area; one at each end and in the middle, if needed. A metal gate is also located at the beginning of the 100-foot free-stall section. We use two other gates when we need to use our headgate. One is hung before the pen that holds the headgate and one is hung after it. This forms a tunnel-like system to move the animals through the gate. We are still changing and perfecting this part of the facility.

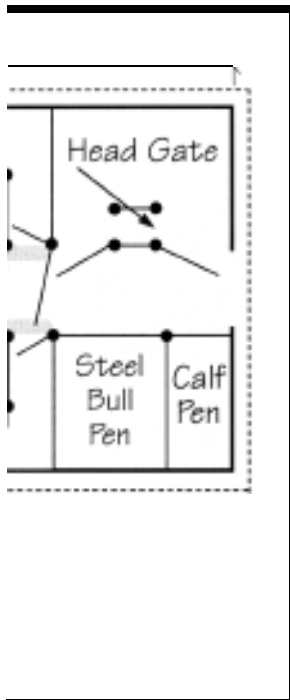
The benefits of having a confinement barn in New England are many. The cattle are fed inside and can be closely watched. They become accustomed to us and are calmer to work with when we have to do basic herd health procedures.

The animals still have free choice of location both in winter and summer. The barn is always an option, as is the pasture. Some summer days it's more comfortable for them

to be inside. The windows on the barn's east and west walls are removable to maximize cross ventilation. The barn is also equipped with two electric fans to increase ventilation as needed. In winter we can close the side and end doors in response to weather and wind direction.

The advantages of renovation over new construction are also numerous. We were able to use our cement stave silo and our silo unloader, which minimizes waste and produces excellent feed. Our hay equipment produces traditional square bales that easily fit into our cattle barn. Again, feed waste is at a minimum, and personal attention to the feed and animals is at a maximum.

Continued on next page





Aerial view of Dry Hollow Farm located near Southampton, Mass.



(Above) A view of the barn's east side center alley and cement feed mangers covered with plastic liner.



(left) Angus cattle feed in the barn's east side free-stall area.

DRY HOLLOW FARM

Stanchion to Free-Stall Barn Renovation Cost

Watering system & installation	= \$ 980
Seven gates & hinges	= \$ 294
Headgate & lumber	= \$ 300
Nails & gate chains	= \$ 20
Total	= \$1,594

Materials & Tools

Recycled staves from wood silo
Nails
Spikes
Hammer
Saw
Tape measure
Basic carpentry tools