A Useful Place to Calve

A mined-out gravel pit helps this Idaho operation minimize environmental stress at calving.

Story & photos by ***Kim Holt***

When Bill and Candy Jenkins start calving their purebred Angus cows each January, temperatures can be frigid and the wind howling. Luckily, though, there's not much guesswork to finding newborns on the Jenkins' Valli-Hi operation — heifers calve near their home, while the mature cows are about a mile away, all snugly tucked into a mined-out gravel pit.

The Jenkins run a bustling Angus and haying operation just south of Caldwell, about 35 miles west of Boise, Idaho. The family's Valli-Hi Angus Ranch includes 170 registered females. Each April they are synchronized, heat-detected and artificially inseminated (AIed), so they start calving the second week of January for 60 days.

Valli-Hi includes 65 acres of well-established irrigated pasture and, up until 2000, this is where all calving was carried out. The only problem was that moisture would turn the calving area to mud. Candy says it wasn't unusual to see a calf calved in a mud puddle, and in spring they'd have to replant areas of their pasture torn up by the cattle and winter's moisture, freezes and thaws.

Bill says they also tried calving in their feedlot, but that didn't work, either. Needing an alternative, the idea of using a nearby seven-acre gravel pit to calve mature cows struck him about 10 years ago.

Adapting to the pit

The pit is located on a piece of land Valli-Hi leases for hay, just down the road from the Jenkins' home place. It offers a drier environment and protection for newborn calves from the wind and cold of winter.

To make the pit functional for pairs, Valli-Hi fenced the acreage with a solar-powered fence charger. Well water is pumped to a

►**Above:** Since 2000, Valli-Hi has calved its mature cows in this 7-acre mined-out gravel pit. Environmental conditions such as cold, wind and moisture can have a tremendous effect on calf survival, and a protected calving area like the pit proves beneficial during cold-weather calving.

►**Right:** Bill Jenkins is his family's second generation to manage Angus cattle in Idaho's Treasure Valley. Valli-Hi's origin traces back to 1960, when Bill's grandfather helped his father, E.G. "Jerry" Jenkins, start out in the registered Angus business. About 75 to 85 bull calves are born each year, and Bill markets some 30 head by private treaty to western commercial producers. The balance is sold as newly weaned calves to Flying U Angus Ranch, Powell Butte, Ore. For about 10 years, Valli-Hi has been a Flying U bull cooperator (see page 182, September 2007 *Angus Journal*).

pond and is then fed into the stock tank through an underground pipe. Propane powers the water tank heater.

Cows are moved to this calving area by four-wheelers in early December and return to their home place in mid-March.

"The thing that's nice about the gravel pit," Bill points out, "is you can have a rainstorm or heavy snow that melts down and in a day and a half it's all gone — the moisture just dissipates into the ground. We manage it really tightly to make sure it's really clean in there," he adds.

Valli-Hi bales a good amount of straw, and they use this readily available commodity to bed the cattle in some 10 different locations around the pit. Soiled straw is removed with a loader and spread on nearby fields. The straw beds are replaced several times throughout winter, especially after stormy weather.

Bill explains that the Valli-Hi crew easily spreads new straw in the pit with a refurbished manure spreader, while they feed cattle out of a portable haybunk. The rolling feedbunk hooks onto a pickup, and each evening is towed to the stack yard where it's reloaded with three 1-ton bales. Bill says they feed at night to encourage calving during the day.

Mature cows are wintered on homegrown alfalfa and a mineral mix. Calves have access to the feeder and also to alfalfa hay inside the calf shelters. Bill constructed the shelters from old horse barns he pulled on skids to the pit location. Like the straw beds, the shelters serve as another form of environmental protection for calves born in early winter.

Research carried out by the National Animal Health Monitoring System (NAHMS) and other studies show that the majority of calf losses occur at or near birth, with more than half of these losses occurring within 24 hours of birth. Dystocia is the single most commonly identified direct cause of early loss.

Attributing calf deaths to other specific causes isn't as easy, but environmental conditions such as cold, wind and moisture can have a tremendous effect on calf survival, according to researchers. And this is where protected calving areas, like the gravel pit, can prove especially beneficial during cold-weather calving.

Ideal calving areas favor health

Dan Barrett, a private practitioner from Caldwell, Idaho, and Valli-Hi's veterinarian, confirms that protecting calves from environmental stress can dramatically help cut calf losses.

"You want to reduce environmental stress on calves, and anything you can do to

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►Calves, as well as cows, find comfort and protection in some 10 different straw beds located around the pit.

►**Below:** Soiled straw is removed with a loader and spread on nearby fields. The straw beds are replaced several times throughout winter, especially after stormy weather, to reduce contamination and the buildup of potential pathogens. New straw is easily spread in the pit with a refurbished manure spreader. Bill often redesigns equipment to make things easier and more cost-effective for both Valli-Hi's cattle and haying operations.

►Calf shelters provide another form of environmental protection for young calves in early winter. Bill constructed the shelters from old horse barns he pulled on skids to the pit location.

►**Left:** Mature cows are wintered on a mineral mix and homegrown alfalfa fed out of a portable haybunk refilled daily. Bill redesigned the hitch so it could be hooked onto a pickup and pulled to the stack yard. Valli-Hi feeds at night to encourage daytime calving.

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accomplish that is well worthwhile," he says.

Referring to producers in the north who calve in the fall, he says, "The main reason they do that is because the weather is nice — it's not cold, windy or wet — and they get away from calf disease, not 100%, but way better than spring calving.

"It just points out dramatically how important environmental stress is," he continues. "Many of the scour diseases alone, with no environmental stress, are not life-threatening. The calf can usually live through it by itself without treatment. The environmental stress complicating the disease is what kills the calf," he points out.

Barrett believes that producers need to think about what constitutes a good place to calve.

"Anytime you have a good calving facility, that's going to be helpful for scours. It doesn't necessarily prevent it, but it usually helps." He reminds that there are many things that go into scours prevention, including vaccines and other management factors.

Scours was an issue when Valli-Hi calved in pastures. It was cold; often there was mud and puddles or snow on the ground, along with wind. Compare this to the pit where the ground is rocky, sandy and drains well, and there is wind protection.

This drier environment and little or no mud "absolutely" help with scours prevention, Barrett confirms. The calving sheds also give calves cover from elements such as snow and rain.

Furthermore, the pit is only used by cattle from December through March. "If you have no cattle in a facility, and it sets there in the summer sun, the sun essentially bakes everything," Barrett explains. "So there's not a disease or buildup as it would be if there are cattle in it regularly."

►**Left:** The gravel pit is electric-fenced with a solar-powered fence charger, while well water is pumped to a pond and is then fed into this stock tank through an underground pipe. The water tank heater is powered by propane.

Valli-Hi also has a good vaccination program in place and keeps a careful eye on the condition of the pit's straw beds. Barrett reassures that keeping the straw beds clean and refreshed after they've become wet and/or contaminated with manure is much better for animals, as is clean ground where cows and calves can spread out.

"You're reducing the amount of potential pathogens the cattle are exposed to," he says.

Feeding hay from a portable feeder instead of on the ground also helps with sanitation and contamination issues because cattle, calves and their feces aren't as concentrated in the feeding area. Likewise, calves aren't using the hay for bedding.

Newborns need care

Similar to other producers, Bill has experienced sick calves at one point or another, so he's pretty cautious about doing all he can to keep calves alive, healthy and protected from the elements.

While Bill and his Valli-Hi crew have learned how to better handle environmental stress during cold calving months, Barrett says he continues to find other operations, particularly commercial, that struggle with this issue. The end result is calf loss that could have been prevented.

"Some producers want to think that because the baby calf is a bovine, a cow so to speak, that it should be tough and able to handle those environmental stresses," he explains. "So they try to treat it like a cow instead of a newborn baby, which is what it really is."

In the first few hours of life, calves have a tough time even thermo-regulating, Barrett says. If they don't get colostrum and dry and become chilled, "they're in real trouble in a hurry."

"All the help you can give them pays off big time," Barrett advises. "They don't get sick at all, they grow better, faster. They wean at a heavier weight, their yearling weights are heavier; all of those things come into play."

In Valli-Hi's case, healthy calves are important because bulls sell to commercial breeders and, as Barrett says, "they expect a quality animal when they buy a bull.

"The more that you can protect a calf from environmental stress, the better off it is," he concludes. AJ