



►Left: Marvin Large says he probably could have built and sold a lot of portable “dark boxes” like the one Large Ranch Manager Jeremy Gittlein demonstrates here. However, Marvin thought the concept was so simple and easy that people would build their own. The dark box, which is situated just behind a breeding barn, holds two animals in waiting. The covered top and nearly solid sides help keep cows or heifers calm. Pieces of used carpet hang down over the opening where, as Jeremy demonstrates, a handler can reach inside to administer injections. This is accomplished before the animals enter the breeding barn where Beef Quality Assurance-approved administration (in the neck) of injections can be challenging.



# Larges Put Wheels

Award recognizes pioneers in making breeding theory a reality.

Story & photos by **Troy Smith**, field editor

Often credited for increased application of artificial insemination (AI) in beef breeding herds are the various estrous synchronization protocols developed for fixed-time AI (FTAI). The ability to synchronize a group of heifers or cows so that mass breeding can be accomplished at a predetermined time without heat detection can reduce the time and labor requirements for AI. Perhaps nothing has contributed more to industry

adoption of FTAI than the Larges Beef Barn. Willie Altenburg, beef development advisor for Select Sires Inc., shared that opinion during an award ceremony recognizing Marvin Large and his late wife, Arlene, of Imperial, Neb. — the inventors,

producers and marketers of the Larges Breeding Barn.

“The Breeding Barn was in place when fixed-time insemination was a theory. It made fixed-time insemination a possibility,” stated Altenburg, presenting the award

during the Applied Reproductive Strategies in Beef Cattle (ARSBC) symposium Aug. 29-30 in Manhattan, Kan.

Created by the Beef Reproductive Leadership Team, the award recognizes



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— **Marvin Large**



►As newlyweds, Marvin (inset photo) and Arlene Large joined her parents’ farming and ranching operation. They later purchased the ranch and expanded it. Since Marvin and Arlene moved to town, resident manager Jeremy Gittlein and his family have resided at the ranch located northeast of Imperial.



►**Left:** Equipped with a head gate that can swing into position, the calm box can be used alone for processing, including administering protocols for estrous synchronization.

►**Right:** Bob Thompson (BT) says his welding shop in Imperial has produced 105 steel frames for Large breeding boxes — since he started counting anyway. Marvin moves the frame to his own shop to finish the painting and assembly.



# Under AI

outstanding contributions toward reproductive tools, technologies or service that have broadly benefited the beef industry. It will hereafter be known as the Marvin and Arlene Large Pioneer Award, in honor of its first recipients.

To date, some 500 Large-manufactured breeding units have been marketed across the United States and in four foreign countries, including single-, double- and triple-stall models, which can be stationary or portable. More than a dozen universities use Larges Breeding Barns when applying AI, embryo transfer or pregnancy testing research herds with ultrasound.

Often copied, Large designs have incorporated low-stress and secure confinement of animals during insemination with convenience and comfort for the inseminator. A far cry from breeding cows in a squeeze-chute, which is how Marvin Large first implemented AI, today's designs evolved from his own practical experience and the input of other cattlemen, AI technicians and, of course, Arlene.

"It's important that Arlene's name is included on the award. We truly were partners," says 82-year-old Marvin, emphasizing his wife's role in their farming and ranching operation, their custom-AI enterprise, and the breeding-barn business.

As newlyweds in 1955, Marvin and Arlene joined her parents' operation located on Stinking Water Creek, northeast of Imperial. The Larges raised their five children there, eventually assuming management and

ownership of the ranch. They added to its size and diversity. For many years, they raised hogs, as well as grain, hay and cattle.

A feedlot was added, allowing for retained ownership of calves and marketing of finished cattle.

## Humble beginnings

Early innovators, the Larges were among the first in the area to adopt crossbreeding, using Angus sires on the Hereford cow herd. They experimented with other breeds, eventually settling on an Angus and Simmental cross. Marvin was one of the first area commercial cattlemen to utilize AI, starting in 1972. Soon after, as a local

representative for American Breeders Service (now ABS Global), he and Arlene introduced the technology to other area cattle producers through custom AI service.

"It was for our own use, on the ranch and for custom work, that we came up with the portable breeding-barn concept. If you're going to [do] AI work for other people and go to their place and breed 100 or 200 head, you have to have a facility that allows you to do a professional job," says Marvin. "If you AI much at all, you're sometimes going to get caught in the rain, maybe hail and even snow. It's pretty nice to have a roof over your head."

The first portable breeding unit Marvin built had four stalls set at an angle. He admits that it was a little bit rough and cumbersome. It was so wide and heavy that a loader was

CONTINUED ON PAGE 94



►**Jason and Laverne Bieker** pose with the 173rd Large double-stall portable AI barn the father/son team has fabricated. Founded in Hayes Center and relocated to McCook about eight years ago, Biekers have been part of the Large team for 25 years.

## Larges Put Wheels Under AI CONTINUED FROM PAGE 93

needed to lift it up in order to roll a trailer underneath for transport.

“But it worked,” grins Marvin.

A lighter, easier-to-handle unit was built in 1980 — one that would more closely resemble the modern Large breeding units available today. Fashioned from plywood panels bolted to a steel frame, this prototype had just two straight-set stalls. Cattle flowed into the unit more readily, so it proved to be more efficient.

“We could actually breed more cows in less time than with the old four-stall breeding barn,” Marvin adds. “It was a lot easier to move around.”

Still, the unit had to be lifted with a farm jack to manually mount the wheels. Later, ratchet jacks were added to raise the unit up onto permanently mounted wheels. In 1992, a breeding barn with a hydraulic lift system was developed. Along the way, other improvements were added, such as making the lower 12 inches of the breeding stall walls vertical, instead of slanted all the way to the floor. Cattle could then take a wider, balanced stance and wouldn't lean on one wall while scratching and pawing at the other. Entry and exit doors and latches were modified to operate more smoothly and quietly.

“All the while we tried to avoid having too many moving parts, minimize weight and keep the cost as affordable as possible,” explains Marvin.

### Transitions

As the manufacture of breeding barns became a blossoming business, the Larges



► Marvin's grandson Ryan Large (right) is a sales representative for DV Auctions, but also does custom AI work and helps his grandfather with the breeding barn business.



► Marvin Large with a single-stall breeding box at his shop in Imperial, Neb.

sought the help of two area welding shops — BT's Machine and Fabrication, of Imperial, and Bieker Welding, formerly of Hayes Center and now located in McCook. Good working relationships have continued for some 20 years, and both firms still turn out units built to Marvin's specifications.

In 1996, Marvin and Arlene moved into Imperial — not to retire, but the move did facilitate a transition. Responsibility for day-to-day ranch operations was eventually placed in the hands of long-time employee Jeremy Gittlein. He manages the various cattle enterprises, including the cow herd, finishing of feeder cattle, and the development and sale of replacement-quality heifers and bulls. The ranch also develops and breeds outside heifers and takes in some outside cows, all on a custom basis.

With Gittlein at the ranch's reins, Marvin could spend more time on the breeding-barn business. For several years, he and Arlene traveled to select livestock expositions and trade shows, displaying their products. They also established a company website.

Marvin maintained a hands-on role in construction. For many years, he brought the steel frame for each unit to his own shop for painting and attachment of wooden panels. More recently, the Bieker Welding crew has been doing all the finish work on the multiple-stall units they build. Marvin still cuts, paints and applies wooden panels to the

single-stall frames turned out by BT's shop.

Marvin closes the deal on every sale, but insists his best “sales people” are satisfied

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customers. Many representatives of semen sales companies, AI technicians and others have hauled their portable Larges Breeding Barns around cow country, while providing custom AI services. It helped sell more units, as has the exposure gained when rancher-customers have

neighbors come help them at breeding time.

“We've always tried to follow up with new customers, after they've had a chance to use their new breeding barns — just to see how they're getting along,” explains Marvin, noting how customer feedback influenced the refinement of designs for various models.

“We will customize a unit, when people want specific changes, but we haven't incorporated any big changes in the standard designs. That always drives up the cost, so we try to stick with what's going to fit most situations and most pocketbooks,” he adds.

Many ranch folk are handy and have fashioned home-made breeding barns that, more often than not, were modeled after the Larges Breeding Barn. Marvin doesn't begrudge that fact. Being a do-it-yourself kind of guy is what got his business started in the first place. Besides, imitation is the sincerest form of flattery.

**Editor's Note:** Troy Smith is a cattleman and freelance writer from Sargent, Neb.