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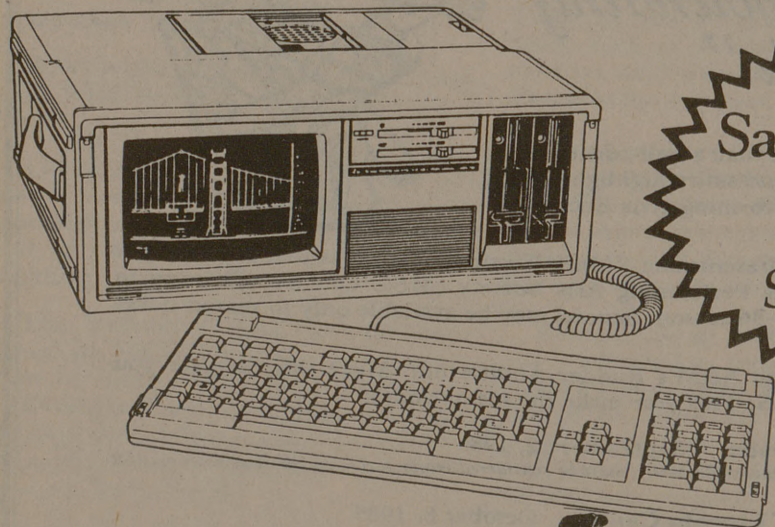
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Funky Winkerbean

by Tom Batiuk



Beef breeding

Embryo transfer process increasing cows' calf production, ranchers' profits

By BELINDA HOOD
Reporter

Embryo transfer — a process by which cows can be made to produce up to twice as many calves as they normally would — recently has gained popularity and may have a great impact on the future.

But in the horse-breeding industry the process is still undeveloped, making it inefficient and expensive. Dr. Duane Kraemer, professor of veterinary physiology and animal science at Texas A&M, said breeders find it difficult to justify the cost of embryo transfer since mares will only produce one embryo per flush.

The Reserve Grand Champion steer at the Houston Livestock Show and Rodeo this year was a product of embryo transfer, but Kraemer said the expense involved makes extensive use of the process impractical for commercial breeders.

Dr. Joe Massey, president of Granada Genetics, Inc., estimates the cost of one pregnancy to be about \$1,800. This includes the costs of artificial breeding, the recipient cow, feed, management, labor, and the actual cost of the process itself.

The purebred beef industry has enjoyed remarkable success with the embryo transfer process, and successful sales of embryos and flushes from genetically superior animals are convincing breeders of the profit-making possibilities of the process.

The basic advantage of embryo transfer is that it makes it possible for a cow to beat the biological clock. Instead of one pregnancy a year, a cow can be superovulated with drugs (to produce multiple eggs), bred, and have her embryos collected and implanted in recipient cows. This makes it possible to get 20-30 calves a year from one female.

Considering that the average cow can only produce six or seven natural calves in a lifetime, the advantages of embryo transfer are apparent.

Massey said that embryo transfer is the first tool that has allowed

ranchers to accelerate the females' genetic impact on the herd.

"It allows breeders to take advantage of the genetic worth on the front end, rather than wait 10 or 12 years," he said.

Granada Genetics, the largest embryo transfer company in the world, is based in Marquez, Texas. It provides genetic services, including the collection and transfer of purebred embryos from both dairy and beef

Unfortunately, not all cattle embryo transfer candidates.

Spencer Roberts, vice-president of sales for Granada Embryo Transfer Co., said only the top 10 percent of any breed should be used in an embryo program. He said the animals from these top individuals should be evaluated and compared to the possible economic disadvantages. The possibility of putting the animals in an embryo program can be considered.

For those who own these top-quality cattle, the economics of embryo transfer are impressive, although problems with the inefficiency of the process must be overcome.

The variabilities of superovulation, fertilization, synchronization, estrus (heat) between donors and recipients, and actual pregnancies produced are problems with the process that can be translated into costs.

Inducing females to produce multiple eggs (superovulation) is not a major problem, but 14-15 percent of the females are not capable of superovulation. Synchronization is a bigger problem because each recipient must be in estrus at the same time as the donor. This stage is about 10 percent efficient. After the embryos are collected, only about 50 percent are found to be fertilized. Finally, the good embryos are implanted into the recipients, about half of which become pregnant.

"One of the frustrations with the use of the technique is the results are unpredictable," Kraemer said. "It makes it difficult for those people who don't understand that variability to accept the results. The only time to use it is when the expense is justified."

Massey contends that if producers want top genetic material they must be willing to accept the unpredictable nature of the process and the expenses that come with it.

"If you want the very best genetics before everyone else, it's going to cost you money," he said.

"One of the frustrations with the use of the technique is the results are unpredictable. This makes it difficult for those people who don't understand that variability..." — Dr. Duane Kraemer, professor of veterinary physiology at Texas A&M.

breeds, to its domestic and international customers.

Both Kraemer and Massey agree that the key to making progress with embryo transfer is selection of "genetically superior" animals. Because the purebred industry has such a wide variety of goals, there is no formal definition for "superior". This makes selection a complicated process.

"There are as many ways to select the animals as there are breeders," Kraemer said. "Each one has his own goal of what he's trying to achieve."

But Massey said breeders usually use some form of progeny tests, show-ring performances or sale results to make their selections.

"In the beef industry the top offspring can be determined by using anything from progeny testing to show-ring results," he said. "Whatever family happens to be the winner at a particular show, basically, is the hottest thing going for the next year or two."

Sears to open for business on Sundays

Associated Press

HOUSTON — Sears Roebuck and Co., the nation's largest retailer, will open its doors on Sundays since the state's Blue Law has been repealed, officials announced.

Sears spokesman Ennis Chafin said Monday, "As a result of our competition opening and the governor finally signing the bill, we decided to meet our competition."

Chafin said stores in Houston, Austin, San Antonio, the Rio Grande Valley and the Beaumont-Port Arthur area will open Sunday.

Gov. Mark White last week signed a bill voiding the century-old Blue Law, which prohibited the sale of 42 regulated items on consecutive Saturdays and Sundays. It becomes effective Sept. 1.

Other stores which are opening seven days a week include Foley's, J.C. Penny Co., Joske's, Montgomery Ward & Co. and Macy's.

Around town

'Alert' program helps senior citizens

Carrier Alert, an emergency alert program is now available for all area residents, 60 years or older. Should an unusual amount of mail accumulate in your mail box, it could signify an emergency. Your letter carrier will contact the Senior Information Service, a group that will then provide help. To sign up for this program, please contact your letter carrier or post office, or contact the Area Agency on Aging at 822-7421 or 1-800-392-5563.

Grand jury indicts 13 on smuggling charges

Associated Press

SAN ANTONIO — A federal grand jury has indicted 13 people on charges alleging they ran a smuggling operation that brought cocaine and marijuana into the United States for five years.

The indictment, returned Monday, identifies transactions involving a total of 90,000 pounds of marijuana and two cocaine transactions of two and 55 kilos.

Some of those indicted are in custody and others, including some from foreign countries, are still being sought, officials said.

U.S. Attorney Helen Evershed said one of the men indicted is a Chicago lawyer who is charged with using his law practice to introduce prospective buyers to drug kingpins. The lawyer was identified as Marvin Glass, 44, who reportedly is hospitalized in Fort Lauderdale, Fla.

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