

Embryo transplants

(Continued from Page D10)

cow or a million-dollar bull.

While Hasler was working with his microscope, McCauley, Brooke and Carl Bartlett, a skilled animal technician, were readying eight recipient cows to receive the embryos.

In the early days of ET practice, both the donor and the recipient cow had to undergo surgery, and the procedures took place under operating room conditions. Veterinarians and assistants, gowned, masked and rubber-gloved, performed those first operations at a cost of roughly twice the \$900 to \$1200 it costs today.

But for all the study, skill and technology involved, today's procedure looks more like an auto assembly line than a classic operating room scene. Gowns and rubber gloves still are used, of course. So is sanitation. While the EmTrain operating theater looked a lot like a milking parlor, the room was scrupulously clean and the recipient cows were carefully prepared for the implementation of their foster sons and daughters.

The young heifers, carefully examined just minutes before to make sure they were ready to receive the embryos, were ushered

into the room. Eight narrow stalls, four on each side of the room were ready to hold the animals in place. They had been tranquilized in the barnyard so they'd be calm for the operation.

After all eight animals were standing in their stalls with their heads clamped, their rear flanks were shaved and sterilized with iodine solution. A shot at the base of each tail kept them dangling harmlessly. A local anesthetic was administered to each heifer to block the pain of the incision through which the uterus would be brought outside the body cavity to receive the embryo.

Brooke worked swiftly, making a foot-long incision on the rear flank of each animal. With his gloved hand, he reached through the incision, parted the muscle tissue with his fingers, grabbed the uterus and pulled it into view.

As each animal was ready, Hasler appeared with a narrow, hollow rod bearing the embryo to be implanted. Brooke pierced each embryo with a pointed device about the size of a knitting needle, the embryo was inserted, and the animal was sewn back up. All eight heifers were ready to leave the

operating room in less than half-an-hour.

The heifers are a real key to the success of the ET program, McCauley said later. They have to be healthy and well-grown and strong enough to withstand the stress — minimal though it is — of the operation.

EmTrain maintains a herd of some 400 non-lactating heifers, all with healthy appetites and all with a price-tag of about \$800. About a third of EmTrain's customers supply their own heifers. The rest buy the heifers that come to the farm bearing implanted embryos. Many farmers take advantage of the tax loss they can claim by paying \$2,000 for a pregnant heifer, then selling her for \$1000 after she delivers her calf. The recipient cows can also be milked before they're sold, adding some income to the herd operation.

McCauley said embryo transfers aren't for every dairyman, and certainly aren't indicated for every good cow. But he believes they are going to be an increasingly important factor in the dairy industry.

He sees a day coming when a dairyman can order ET bulls or heifers, depending on his particular planning. Frozen embryos, especially for the export market, should have a place in the future. And McCauley

Pydrin gets temporary label to combat pear psylla

HARRISBURG — The Environmental Protection Agency has granted a specific exemption of a pesticide to be used in the control of pear psylla in pear orchards of Pennsylvania.

"At our request, the EPA has agreed to help orchardists save the state's 1500 acre pear crop which has an estimated value of \$1 million," State Agriculture Secretary Penrose Hallowell said.

"The increase of pear psylla and decrease of effectiveness of pesticides presently being used led to the EPA's specific exemption which will terminate November 30, 1980."

Pear psylla is an insect which feeds on pear leaves, excreting honeydew (sugary waste) which serves as a source of food for a fungus and causes the fruit to turn black. Over the past several years, chemicals used to control pear psylla have not been effective at a

sees a definite possibility for herds in which the bottom procedures carry the offspring of the top producers, with the assistance of ET.

rate of application allowed, and the state's pear crop has steadily declined. It was estimated that one-half of the state pear crop would be lost without this exemption.

The pesticide granted for use is fenvalerate sold under the Shell trade name Pydrin. The EPA has labeled the exemption product specifically for Pennsylvania.

Secretary Hallowell indicated that all applicable directions, restrictions and precautions on the EPA product label must be followed.

Orchardists and farmers should be cautious when using the exempted product. The feeding or grazing or growing of orchard crops is prohibited.

The application of Pydrin

is limited to dormant through pre-bloom stages of pear tree development, and a single post-harvest application. The exempted pesticide has an effective life of less than one week, and when applied as directed, will not cause any environmental problems.

Any questions concerning the product and its use should be directed to the Pennsylvania Department of Agriculture's Division of Pesticides, Attn: Gerald J. Florentine, 717/787-4843.

"The increased control of pear psylla, and special pesticide exemption for the state is one of the many steps we are taking at the Department of Agriculture to insure that Pennsylvania agriculture is truly 'growing better,'" said Hallowell.

Fur and Feather to bowl

FLEMINGTON, N.J. — Members of the Fur &

to the Frenchtown Lanes for their party.

Feather 4-H club have planned a bowling party for April 19. They will meet at 6:30 p.m. at the extension building. The club will travel

The club is looking for new members and an additional leader. For more information call Mrs. Nief at 201/782-2526. Reported by Bryan Milz.

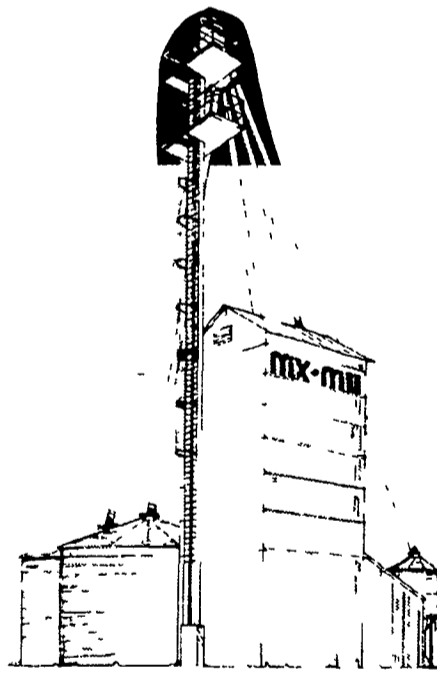
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