



Drs. Gregory Brooke, left, and John Hasler work with swift intensity to implant an embryo into the womb of a young heifer. The embryo had been flushed earlier in the day from the womb of an outstanding milker in upstate New York.

Embryo transplants

(Continued from Page D8)

McCauley explained ET practice in the farmhouse office that serves as headquarters for the firm.

McCauley, who got his DVM from Cornell in 1969, opened his first ET business in early 1978 just outside Mount Joy. In the years between 1969 and 1978, he completed an internship in large animal obstetrics and surgery, taught bovine and equine reproduction at Cornell for three-and-a-half years and had a dairy practice for three years.

In the last four months, McCauley, Hasler and their

helpers have completed 700 embryo transfers, and they're aiming for an eventual production of 300 ET's a month.

At first, McCauley said, they worked mostly with problem cows, good animals who couldn't be bred. ET can be a life-saver for problem breeders, because some 40-percent of them can produce good embryos when they're super-ovulated.

But properly managed, ET is more than a tool for dealing with fertility problems. It can be used by the dairyman who wants to build a top herd in a hurry,

and it can be used by the dairyman who wants to sell top breeding stock.

McCauley said they work with their clients in choosing animals and setting goals for an ET program.

"We look at type, pedigree and production, factors that Galen Crouse mentioned," McCauley noted. "Those numbers are pretty easy to get. One of the big question marks in ET practice is whether or not a cow can transmit those superior genes to her offspring."

After an EmTrain client selects a cow for ET breeding, she receives a series of drugs which cause her to super ovulate. After her ovaries have been in-

duced into releasing dozens of eggs at once, she is artificially inseminated.

Seven or eight days after she has been inseminated, McCauley, Hasler or Dr. Gregory Brooke, the other EmTrain veterinarian, visits the cow, flushes the embryos from her and, usually, bring them back to Elizabethtown.

The embryos are carried simply in a small bottle containing a nutrient solution. At this stage, the embryos are about six days and still encased in a tough membrane which withstands a surprising amount of

almost casual, even rough, treatment. McCauley carries the embryos in his shirt pocket, to help them stay warm.

At the E-town lab, the embryos must be separated from the bits and pieces that follow them out of the cow's uterus. Demonstrating the technique, Hasler dipped a syringe into a small bottle holding half-a-pint or so of fluid that has been added to the flushings from a cow's uterus.

He squeezed the bulb of the syringe a number of times, rapidly drawing the fluid up,

then ejecting it back into the bottle. This helped to break up the solids in the fluid, but it didn't affect the embryo, Hasler said.

Using a microscope, Hasler then looked for the embryos, then determined which were suitable candidates for transplantation and which weren't.

Those that were, he placed in a tiny dish on the microscope stage. When he finished, the dish held eight pinpoint of life, any one of which could now be on its way to becoming a \$200,000

(Turn to Page D11)

NEE-LEE BUILDING SYSTEMS

ANNOUNCES THE
NEW GUY IN TOWN.
Call Him About Your Needs.
Don't Wait Until Next Fall.

DO IT NOW!!

ADD PROFITS TO YOUR FARM OPERATION



Nee-Lee, Inc. manufactures a complete line of bins and accessories for all types of grain storage and handling, produces on-farm storage bins ranging from 15' to 48' in diameter with up to 43,016 bushels storage capacity

LOW COST
PER SQUARE FOOT
FREE-
SPAN
METAL
BUILDINGS

FOR RANCH OR FARM
THE RIGHT DESIGN
THE RIGHT PRICE



Versatile Slant Wall

40', 50' Widths
12' - 15' - Eave Heights

Different look — just as easy to put up as straight wall. Basic units are 50' with 25' add-on bays available. Unobstructed space for work or storage.

No bar joists, no rafters — just lots of clear work or storage area. 26-gauge steel, easily erected, maintenance-free. Protected endwall sliding door. Many options available.



All-Purpose Arch
30', 40', 50', 60', 70' Widths

Maximum usable space at minimum cost! Excellent for quick, easy storage of equipment and supplies. Corrugated steel Sliding door, 20' x 14'. Accessories on request.

Spacious Straight Wall

30', 40', 50', 60' Widths
10' - 16' Eave Heights



Pre-Engineered
Steel Buildings

Unlimited
Structural Design

NEE-LEE
Corporation

• FARM BUILDINGS
COMMERCIAL BUILDINGS •
• INDUSTRIAL BUILDINGS

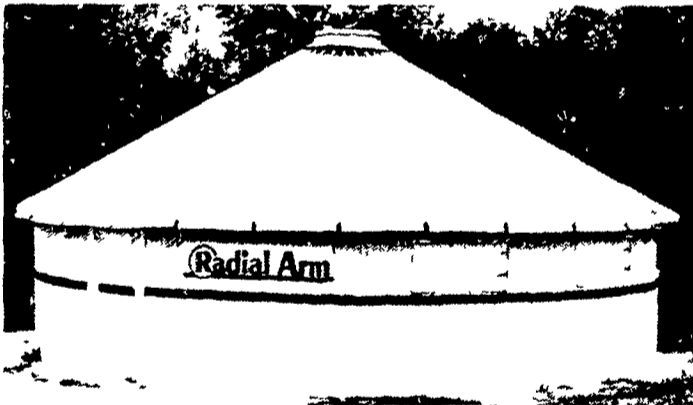
The Authorized New Guy In Town

ZINN BUILDERS, INC.

1408 Marene Drive
Harrisburg, PA 17109
717-545-0231

Introducing...

Radial Arm™
circular finishing
Automated Hog Confinement



NEW

SELF CLEANING
HOG
BARN
102 Head
Capacity

NEW EASY TO CONSTRUCT ROUND BARN.

Base comes in 12 curved sidewall sections. One section includes a dutch walk door. The other 11 sections can be ordered with or without a 24' x 48" ventilation door, thus allowing you to set up a natural ventilation condition or a total environmentally controlled unit or a combination of the two.

The unique circular design of the structure combined with vent doors that swing out (hinged on the side instead of at the top) provides a natural air scoop on one side and a natural air foil on the other side, thus causing air to cross ventilate regardless of wind direction. Roof cap on the bin roof can also be manipulated to provide additional natural air movement.

The 12 sections can be assembled in about one hour. Each section is complete with white painted strong panel steel on the exterior and fiberglass insulation in the wall. A fiberglass pig barrier is provided for interior covering and comes in a roll for installation after sidewall sections are assembled, thus providing for a seamless interior wall.

The assembled sidewall sections are covered by a conventional grain bin roof which is insulated with white polystyrene 3 1/2 inches thick. The polystyrene comes in panels and is 100% moisture resistant. The panels are installed using fasteners, and will not come down or sag with age. It also enhances the appearance of the interior of the barn.

SPECIAL INTRODUCTORY PRICE \$8,995⁰⁰ f.o.b.

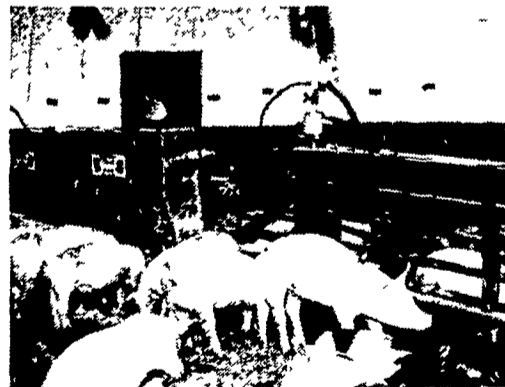
Contact Your Eastern Distributor

THOMAS BACHMAN & SONS

2501 Fallston Road

Fallston, MD 21047

301-557-7529 or 301-836-6877



CIRCULAR CONED FLOOR is divided in half by Radial Arm Cleaning unit and gate on which feeders are mounted. On command motor drives gate around pivot moving manure to gutter. Material flows down gutter pushed by scraper paddle into pipe and out of building.