Will 100 embryo splits be possible someday?

BY JOYCE BUPP Staff Correspondent

AIRVILLE — Dr. Alan Mc-Cauley, who has literally transferred thousands of embryonic cells of life from donor cows to recipient heifers, says the ability of science to transfer life from one system to another "still amazes me."

McCauley, who founded the Em-Tran firm, located at Elizabethtown, was the featured speaker for the York Holstein club's annual field day, hosted at the George Knight family's Woodbine Farms, R2 Airville.

About 200 members and guests gave up a day of hay baling weather to question the reproductive specialist, fellowship over a barbequed chicken dinner and judge classes of cows that included a group of four aged-cow Excellents, topped by a 92-point member of the Knight herd.

Speaking to the group gathered under the farm's spreading shade trees, McCauley said that embryo transfer work has made him appreciate life. In fact, he related that he still finds it hard to comprehend that a cell can be manipulated from one system to another and still be a living, healthy calf.

"It's the people, though, that have become the most rewarding part," claims McCauley, admitting that the actual physical transfer process becomes routine with repetition.

Praising the benefits of 4-H club involvement, the vet says he sees "young things" as agriculture's greatest assets, whether they be embryos or children.

He sees the future of farming as "exciting and competitive,' and predicts that ET technology will

follow a path similar to that of the development of artificial insemination, only on a much more rapid path of progression.

An admitted competitive individual, McCauley sees keeping up with rapid developments in the industry part of the competition angle of the ET business. To stay abreast of new embryo-splitting techniques being developed, Em-Tran recently hired a specialist in that field from Colorado State University, where egg division was pioneered.

New technology of embryo splitting, adds McCauley, now adds some value to formerly useless unfertilized eggs. Shells of these sterile eggs can beused to insert the ova created by halving fertilized cells.

Splitting is becoming so perfected that, at Colorado University, specialists implanted 35 eggs, split in halves, into 70 recipients during just one afternoon.

Dr. McCauley says he believes a four-way egg split has already been performed in Texas, and projects that, theoretically, up to one hundred divisions could someday come from a single fertilized egg.

In response to an audience question, he explained that identical twins resulting from embryo splitting do not necessarily have precisely the same coat coloring, although thus far they have been the same sex.

Transplant recipients have been found to occasionally deliver more than one calf from the documented implantation of a single embryo, leading reproductive specialists to conclude that multiple birth divisions take place beyond the seven to eight day age of embryos used in transplanting.

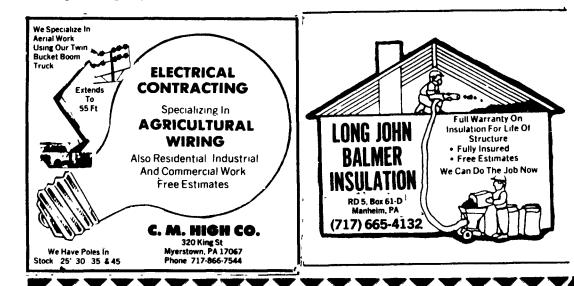


York Holstein picnic judging prizes went to, from left, C.E. Hubbard and Dana Doll, junior division; and senior divisions winners Dave Miller and Paul King.





Embryo transfer specialist Dr. Alan McCauley, left, chats with York Holstein breeders following talk at group's field day.



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