

He is now urging them to go ahead and buy land under this scheme. He is also going to great lengths to remove some of the disincentives that have worked against it in the past. Up to now the cost of servicing land for housing and the subsequent cost to the neighbourhood of schools, transport, etc. has tended to deter provincial and municipal investment, leaving the field wide open to the speculators. Mr. Basford, recognizing this, has now made offers of federal aid for the

installation of trunk services as well as direct federal assistance to the assembly of land.

He has also suggested that the profits made when land is subsequently sold or leased, at or near market prices, should not be retained by the governments concerned but should be put back into the market in land for open space, community facilities, school sites and other amenities. Any remaining profit could be applied to

the capital cost of community service buildings.

If it works out and urban land prices are effectively checked, the example of Canada will be of great interest to the rest of the free and overcrowded world. ♦

## One female produces eight calves

Eight full-blood Maine-Anjou calves conceived at one time by one cow, Cetella, but carried and given birth by seven different Jersey and Holstein mothers, have made agricultural history at Calgary, Alberta.

Cetella, the donor cow, was stimulated by the use of hormones to produce a number of eggs instead of the normal one or two, and five days after fertilization the embryos were removed by delicate surgery and implanted in recipient females. In one case the recipient was implanted with two eggs, resulting in twins.

Although experiments in embryo planting have been going on for some years, this is believed to be the largest number of purebred Maine-Anjou calves born from a single operation. It was performed by Alberta Livestock Transplants Ltd. of Calgary, who are hoping eventually to export frozen fertilized embryos. The freezing process has not, however, been perfected yet.

In announcing the eight births, the organization emphasized the fact that the calves were to be regarded as purebred in spite of the different breeds of the mothers that gave them birth. Each egg implanted by such an operation has similar brother-sister genetic potential and will not acquire characteristics of the recipient foster mother. There is no apparent difference in the growth of fetuses during normal pregnancy compared to recipient pregnancies. Once the transplanted egg has been implanted into the recipient uterus, there is no more chance of rejection or abortion than during a normal pregnancy.

Just as artificial insemination was the technique used in the last decade for the propagation of the blood lines of superior bulls, embryo transplants appear to offer similar possibilities for the immediate future for expanding the numbers of offspring which can be obtained from excellent dams. ♦

## Heifers reach puberty early on energy diet

What a heifer eats and when she eats it may determine how quickly she reaches puberty, according to research physiologist Jacques Dufour at Agriculture Canada's research station in Lennoxville, Quebec.

In an experiment, Dr. Dufour divided a herd of 36 heifers, each weighing 300 pounds, into two groups. For 100 days one group was fed a high energy ration and gained two pounds a day: daily diet included all the corn silage they wanted and about two pounds of mixed grains. The second group received a low energy ration, adjusted to provide weight gains of one pound a day: it included all the corn silage they wanted but only half a pound of grains a day. This part of the experiment did not appear to affect the heifers' puberty in either group.

After 100 days, Dr. Dufour divided the heifers into four groups. The first group continued to eat the high energy ration. The second group switched from the high to the low energy ration. The third group switched from the low to the high energy ration, and the fourth group continued on the low energy ration.

Both groups fed the high energy diet in the second part of the experiment reached puberty at a similar age (298 days) and more quickly than those fed on low energy ration. Both groups on the low energy diet reached puberty at an average age of 350 days, although some matured much earlier than others.

Dr. Dufour commented that having heifers reach puberty at a similar age makes planned mating easier. "Now we are going to study the relationship between heifer development and various rations beginning at three days of age. We want to see if it is more profitable to promote heifers' growth so they reach puberty as early as possible, or if it is best to wait." ♦

## Good farm land is wasted

Some of Canada's best farming land is being taken over for industrial and other purposes because its price has gone way beyond its market value as agricultural land and farmers can no longer afford it.

According to Norman Pearson, political science professor at the University of Western Ontario, if current trends continue all the best farm land will have gone within 60 years.

In an article in *The Agrologist* he has predicted that this could cause a severe food problem, since it will be difficult for farmers to produce as much on poor soils.

## Postal museum opens

A display of stamps from many countries will go on view when Canada's first postal museum opens in September.

A sales counter designed to look like a turn-of-the-century post office in a general store will be a feature of the museum, to be housed in a temporary building in Ottawa pending a new site to be ready by 1978.

The mock 1900's office will sell mint postage stamps and first day covers. All mail from the office will carry the museum's special cancellation mark.

Museum manager Jim Kraemer says he believes the museum has the finest reference collection of Canadian and British North American stamps in existence. News of the museum's opening has aroused interest abroad. ♦