

Improved fruit trees produced in test tubes

New, improved varieties of fruit trees can be quickly produced for commercial orchards as a result of research at Agriculture Canada's Summerland, British Columbia Research Station.

"Traditional fruit tree propagation can take as long as three years before the trees can be planted in orchards," explained W.D. Lane, a fruit-breeding specialist at the research station. "This has made it difficult to provide quickly the necessary numbers of new cultivars demanded by the industry."

However, with the development of a new tissue culture technique, young trees now can be ready for orchard planting in just one year. The technique is currently being used commercially with some easy propagate tropical plants such as the Boston fern. Dr. Lane has extended the method to fruit trees.

Number of steps

It involves a number of steps. First, small shoot tips — the growth points of branches on the trees — are removed and are grown

in a nutrient medium in test tubes.

"These tiny shoots are mother cultures that produce secondary shoots," said Dr. Lane.

The secondary shoots are cut from the mother culture and are rooted in another medium after they have grown to two centimetres in length. The mother culture can then generate another crop of secondary shoots.

An apple mother culture can produce about 20 sprouts every three weeks. Pear mother cultures can produce up to 50 secondary sprouts a month. The rooting success with both apples and pears is about 80 per cent — much higher than cuttings in greenhouses.

"All the test-tube cultures are placed in a growth room with high light intensity and controlled temperature and day length," Dr. Lane said.

The secondary sprouts are hardened off and permitted to develop roots. They are then transferred into a greenhouse. Six weeks later, an 18-inch tree is ready for planting in an orchard.

Two stamps complete endangered wildlife series

Canada Post has issued two stamps marking the end of its series of eight stamps on endangered wildlife which began in 1977. The Vancouver Island Marmot is featured on a 17-cent stamp and the Wood Bison on a 35-cent stamp.



severe winters have reduced the wood bison population. By 1922, no more than 2,000 remained, centred on what is now Wood Buffalo National Park. Interbreeding nearly wiped out the subspecies when the plains bison was introduced to the area. However, in 1957 the Canadian Wildlife Service discovered a purebred herd of 200 wood bison and has since been working for their preservation and propagation. Nearly 800 wood bison now exist.

Robert Bateman, a wildlife painter, has shown the wood bison in a wintery setting among the trees that distinguish its habitat from that of its relative, the plains bison. The marmot, painted by Michael Dumas, is depicted emerging from its burrow in a grassy clearing in the mountainous interior of Vancouver Island.



"From the initial step of establishing the mother culture to producing the first nursery-ready trees takes about six months," Dr. Lane said.

"Compared to the years required for traditional fruit tree propagation, the savings for commercial production are enormous. But the greatest benefit of the tissue culture is its flexibility. With it, we can adjust much faster to the changing needs of the industry than we ever could before."

Six to attempt Everest

Six Canadians will make an attempt to conquer Mount Everest, the world's highest peak, in 1982.

The attempt, the first major one by Canadians, will be led by George Kinnear, a physical education professor at the University of Calgary. The group said that it plans a series of Himalayan training climbs before the Everest ascent. This autumn the six will attempt to climb Nuptse, a 7,789-metre (25,554-foot) peak adjacent to Everest, in preparation for the Everest attempt.

The cost of scaling the world's highest mountain is estimated at \$465,000. The venture is being sponsored by Air Canada which will transport the six climbers, five support workers and 20 metric tons of supplies to Nepal for the assault on the 8,848-metre (29,028-foot) mountain. The airline will contribute another \$200,000 and the Alberta government has pledged \$50,000.

Southam News will have exclusive rights to on-the-spot coverage of the attempt. The news chain will designate a reporter to accompany the expedition and he will be the only newsman permitted to accompany the six on their climb.

Baumann breaks record

Alex Baumann of Sudbury, Ontario broke a world record for the men's 400-metre individual medley recently at the 1981 Canadian short course winter national swimming championships held in Victoria, British Columbia.

The 16-year-old covered the distance in a time of 4:12.67 to better his own world best of 4:15.11 set in January at an international swimming meet in Grainsville, Florida.