

Queen Breeder of the Saskatchewan North

November 13th and still in Saskatchewan and this time on a trip by truck to Candle Lake in Canada's far north. There we find Canada's outstanding queen breeder of Caucasian bees who ships mated queens into twenty six different countries. Everett Hastings of Birch Hills, Sask. picked me up around twelve o'clock noon and we took off into the bush north of Weirdale where he has two highly successful queen breeding projects about twenty miles apart, and approximately 328 miles north of the U.S. border.

Most of his colonies are being wintered at Birch Hills but he has nine colonies packed in black coated cardboard cases in one bush surrounded apary that are headed up by all sister queens. These are his drone producing colonies. His nuc. boxes are piled up in the yard ready for next summer. It is abundantly clear that any bees that escape from this yard by swarming will last only a short time before the bears would have them. Besides, there aren't any hollow trees or places that the bees could take up housekeeping away from the yard. Finally there are no beekeepers or colonies in the area. Hastings and his beeyards have achieved ISOLATION.

In any queen breeding project where natural matings are part of the programme and the objective is high quality stock, there must be absolute isolation. But this is only a starting point. Our afternoon with Everett apparently chatting casually about old times revealed information that has been hard won from the years of practical experience. Until this winter, Everett has been hired in our off season

as the queen breeder for the Australian Beekeepers Association. Paralysis or disappearing disease has been so devastating in Australia that his work with them had to be discontinued this winter. Not too much is known about paralysis but when the colonies go down instead of up, even the most innocent of beekeepers come to realize that something is very wrong.

Getting back to the queen breeding yards, the nine colonies being wintered have been provided with combs carrying a high area of drone comb to insure a high population of drones. A maximum of 150 nuclei are maintained at any one time. Consequently, queens will be mated the maximum number of times and so each queen will have an optimum number of sperm.

From Mr. Hasting's experience, he tells me that his queens can go up to four years under honey production demands before they run out of sperm. We should explain that some breeder queens can be managed, by restricting the laying area, to go up to seven years. For honey production, queens are managed to get all the bees that can possibly be raised before a major honey flow with the result that most queens are burned out by the end of two years.

In case the reader is puzzling over the bear situation, may we explain that electric fences are kept going full time around the yards when the bears are active. As soon as Saskatchewan cold weather hits and the bear heart slows down, the fences can be disconnected. Recently, Everett has heard about using moth balls in a small cotton sack nailed on the four corner posts of the yards. This seems to help repel the bears away from the yards. The principle here is if the bear doesn't

come in to investigate, then he doesn't have anything to forget. Should explain too that the area around Candle Lake is a forest reserve. There are a number of cottages and a new modern hotel to accommodate tourists and hunters in the late fall when the deer season has arrived.

DOUBLE GRAFTING

We asked Everett about the merits and demerits of double grafting. His answer was definitely "yes"; but it is very important that the work is carried out properly if it is to be successful.

Hastings uses twelve hour old larva for grafting and avoids all eighteen to thirty hour old larva. This is done on the belief that the royal jelly is of a different nature, consistency etc when prepared for twelve hour old larva. This larva is removed in twenty four hours and another twelve hour old larva is placed on the royal jelly. Great care is taken not to disturb the royal jelly from the first graft. A check after three quarters of an hour will tell whether or not the bees have removed the first supply of jelly. If they have, all effects obviously are lost. With the placement of the second twelve hour old larva, the bees will add more royal jelly of the right ingredients for this particular age and the result will be an extra generous amount of royal jelly for the growing larva. The principle here is if it is pabulum then it should be pabulum. His observation is to effect that 75% of these queens are superior to queens raised from grafting into the dry cell.

The careful selection programme that can be carried out in a small queen producing project is in direct contrast to the methods that can be carried out under mass production. The result in that Hasting Caucasian queens are all released to the market as breeder queens at \$25.00 per head.



In Salen's cottage at Candle Lake, Everett is surrounded by his friends, Harold Orr, Manager of a Bee Farmer Unit out of Tisdale; Ryder Salen, Birch Hills, a commercial beekeeper at Star



City and Dave Campbell, manager of the Saskatchewan Honey Producers Co-op. at Tisdale.

In a nuc. yard are the nine drone

producing colonies packed for winter in cardboard cases. Everett is wearing one of those fancy heavy sweaters that are popular in Northern Saskatchewan.