Sale of A.I. Breeder Queens – What is a fair price?

The Australian Honey Bee Industry Council, having recently established a national breeding programme known as the Australian Queen Bee Breeding Group, in November 2007 announced for sale by tender genetically improved breeder queens to beekeepers. The minimum acceptable tender price for evaluated stock was set at $440 per queen. Lines for sale were published on the AHBIC website at www.honeybee.org.au

I have been told recently that there is no way beekeepers will pay this sort of money for an A.I. queen. I have had a lot of experience in the field of bee breeding. Clearly, somebody needs to show the average beekeeping industry participant that the minimum tender price of $440 for a quality breeder queen is dirt cheap, not covering the true cost of production. That somebody had better be me.

When you set out to properly run a closed population bee breeding programme, you need to establish a number of lines, say 10-25, the more the better. The AHBIC programme has 15 lines. A closed population requires you to collect semen from the drones of each line, pool the semen, A.I. a set number of virgins from each line, say 10, so you can establish enough colonies for field evaluation. The best performing queens (after field evaluation) are the ones being offered for sale by tender.

Consider some of the basic hive materials and bees you need to assemble:

- 10 colonies for field evaluation x 15 lines = 150 strong colonies
- 150 nucleus colonies screened to prevent virgins flying, to receive cells, to hold virgins, to hold virgins during A.I., to hold inseminated queens after A.I. and during their establishment as laying queens. Running 25 lines the amount of hive materials escalates accordingly.

How many more queens must be produced for evaluation, as spares, for sale, for drone mothers? How many hours of checking, moving, clipping and marking, putting on excluders, catching, holding or transporting drones? How many hours of attention to detail, getting the timing spot on, etc?

Open mating is not a solution for a scientific or actual closed population programme. Sometimes it takes 10 drones for 10µg of semen, sometimes 30 (once it took me 120 because the drones were immature). Drones don't all mature at the same rate, some lines need longer than others. With A.I. the semen from each line is a measured amount, which is then mixed or centrifuged and then inseminated. The result then it that one can make a true selection among queens. The male input is equal in each mating.

If done properly the cost is immense, $5000 per A.I. queen might come close, $500 is nothing. In the case of a $500/A.I. queen, if a beekeeper produces from the queen 100 daughters, that's $5 per queen, if 500 its $1 a pop, if 1000 its 50cents. In the case of $5000, its $5 per 1000 etc.

It's time beekeepers were honest about a fair price for quality stock; ie. quality queens, breeder or untested. Do the sums. Expect quality, but be prepared to pay accordingly. Be realistic. A quality job is always respected and this goes not only for the queen breeding sector.

Gretchen Wheen

(Ed.Note: The queen in the above photo is NOT one of the queens from the AHBIC Australian Queen Bee Breeding Group programme, but has simply been used for illustration.)