



REPORT TO THE NATIONAL BEEKEEPERS ASSOCIATION CONFERENCE 1997

Telford Rural Polytechnic Apiculture Unit

Staff Changes

Nick McKenzie finished as Apiculture Tutor on 27 March 1997 and departed for Canada soon afterwards. Nick is looking to expand his international experience in beekeeping and will be working with a commercial apiarist while in Canada. I would like to take this opportunity to wish Nick well for the future and thank him for his contribution to Telford and the Certificate in Apiculture course. Nick spent several days exchanging information with me prior to his departure. This was invaluable as it assisted in maintaining continuity for the full-time students.

I began as Apiculture Tutor on 7 April 1997. I was employed for seven years prior to this as Senior Apicultural Adviser with the Department of Primary Industries in South Australia. I spent two years as a research scientist for Adelaide University working with leafcutting bees. I completed a Doctorate in Entomology at Massey University working on bumble bee domestication and foraging. I completed a Bachelor of Science and Master of Science in Ecology at the University of Canterbury. I first became interested in bees while working with Dr Barry Donovan and Dr Rod Macfarlane at the Agricultural Science Centre at Lincoln.

Students started the second term on 21 April. Mrs Valerie Bell remains as the Apiculture secretary.

Enrolment

During the first six months of 1996 there was one full-time student, this increased to two students in the second half of the 1996 year. During the first half of 1997, three students were enrolled in the full-time course. In the second half of the 1997 year it is anticipated there will be two full-time students who will continue until the end of the year. Agriculture students also participate for one week on the apiculture programme. Currently only one third of the agriculture students participate in the apiculture course and the rest gain agriculture work experience on farms. It is hoped that a greater proportion of agriculture students may gain apiculture experience in the future as part of their course requirements.

*Karen Bassett
Tim Samari - Sol. Is. He's done
for 1 yr. went
on his own
to NZTC &
got a
scholarship.*

There were twenty correspondence students on 1 July 1996. As of 10 July 1997 the number has increased to 23 correspondence students and these numbers help to maintain and justify the continuation of the Certificate in Apiculture course at Telford.

Course fees

Full-time students undertaking the 38 week Certificate in Apiculture course pay a fee of \$1,600 (includes GST) for a study right student and \$2,500 for a non-study right student. For the extramural two year course, the fee is \$350 per annum (study right and non-study right). Full-time students also pay \$50 enrolment fee and \$200 student association fee. Accommodation and meals for students staying at the hostel ranges from \$144 (5 days) to \$177 (for 7 days). All students outside Australasia enrolling in the full-time course are required to pay course fees of \$14,000. Any person interested in Telford courses should ring

free phone 0800 805 657.

Course activities

Students have been involved in a range of activities during the first two terms of 1997. These activities have included: rearing and marking queen bees, requeening hives, removing honey, checking hives for American foul brood, taking honey samples for testing by MAF, numbering boxes and frames and weighing supers, extracting honey, sugar feeding and wintering down hives. They have also been melting down wax and replacing equipment in the field. Students and staff completed a First Aid course on 7-8 July.

Field activities in the second term included a visit to a commercial apiarist on 17 June to observe the production and packaging of creamed honey and the rendering down of wax from old combs. Creamed honey produced by students is sold locally at Telford Farm. Staff and students attended the Otago Branch meeting in Dunedin on 6 June and the Southland Branch meeting at Gore on 13 June. Also, the MAF Coastal Otago discussion group meeting on 26 June at Invermay, was attended.

Visits to the Telford Apiculture Unit included: 80 third formers from South Otago High School on 23 May to observe manipulation of beehives and honey extraction; 40 careers advisers on 24 May to observe honey extraction; and also 220 students and the general public looked through the honey house on the Telford Open Day on 2 July.

Improvements to honey house

New aluminium doors have been installed in the extracting room to bee-proof this area and safety switches for appliances introduced. Excavation for a new 5x6m bee storage shed and workshop has improved the drainage. The new shed should be erected in the next 12 months, budget permitting. Within the next 4-6 months the storage room walls will be lined and new doors and a ramp will be introduced to improve the movement of supers through the plant.

Hive management

As of 1 July 1997 there are 367 beehives being overwintered in two areas, the Puerua Valley and Clydevale. There are 153 hives on 9 apiary sites in the Puerua Valley and 214 hives on 11 sites at Clydevale. A total of 26 sites are currently registered with MAF for use.

It is anticipated that hive numbers will be increased to around 400-425 producing hives. Hive production is currently being recorded on a per hive and apiary site basis and this information will be used by students to determine the most suitable sites and the most productive hives. Queen bees from these productive hives will be used for queen mother and drone mother production next season.

American foul brood (AFB)

A total of 13 hives were identified with AFB from February 1996 to February 1997. These hives were subsequently destroyed. No further outbreaks have been detected to date. Since April, the students have been encouraged to maintain good hygiene when inspecting hives, including washing gloves and hive tools in water with disinfectant when moving between

hives. No frames or boxes have been swapped between hives with the exception of introducing nucleus hives and these have all been recorded.

Frames and boxes have all been numbered so that the frames are returned to the same box after extraction and the boxes are returned to the same hive next season. As very little brood was present during late autumn when final disease checks were undertaken, honey samples (30-50 ml) were removed from brood frames of each hive in each apiary. Honey samples from each apiary site (20 total) were submitted to MAF, Invermay and tested for AFB. The results were all negative.

A policy of replacing 2-4 brood frames per hive with new frames of foundation will be introduced in spring/summer to improve the quality of brood frames and to reduce the bacterial build up and spore load in brood frames.

Awards/Scholarships

Following an interview on 8 July, Karen Bassett, from Wanganui, was awarded the NZ Honey Industry Trust Intramural Certificate in Apiculture Award for the first two terms of 1997. The award of \$1,000 is made on a term by term basis to a student showing effort and promise in beekeeping with up to \$2,000 awarded per year.

The NZ Honey Industry Trust awarded \$2,660 for two full-time students to undertake a study tour including attendance at the 1997 NBA conference and seminar in Nelson. The Apiculture Tutor and the students will visit the NZ Honey ^{Producers} Packers Co-operative (Pleasant Point), NZ Beeswax (Orari), Airborne Honey (Leeston) and Ecroyds Beekeeping Supplies (Christchurch) while travelling to and from the conference.

Summary of results from the 1996 questionnaire

The questionnaire was undertaken to determine whether the training needs of the apiary industry were being met by the current apiculture courses offered at Telford and whether by adapting tailor made courses for industry needs the enrolment in apiculture could not be increased.

Questionnaires were sent out in June 1996 to 226 beekeepers (4% of total beekeepers) who owned 300 or more hives and who in total owned 196,818 hives or 67% of all hives owned in New Zealand. The questionnaire was in three parts: Section A for employees of beekeepers, Section B for beekeeper employers, who employ at least one staff member and Section C for beekeepers whether or not they employ staff.

Employees of beekeepers (Section A) 16 respondents (7%)

Employees from throughout NZ responded; 69% of these respondents were working all year for their employer; 75% worked for an employer running over 500 hives with 93% being honey producers and 50% were involved in pollination and/or queen rearing (25%); only 31% had formal qualifications; 81% would be interested in further beekeeping training; 55% wanted training for 1-2 weeks maximum; 50% preferred training in late autumn or winter with 38% preferring the early spring or late summer/early autumn period; 75% of beekeepers would travel for training with 38% prepared to travel within their region and 38% were

prepared to either travel to Telford or within their island; nearly all (94%) indicated support from their employer to undertake training and 56% indicated they would be given financial assistance by the employer; the type of training requested included: disease recognition and control, queen rearing, all aspects of running a commercial operation, management for honey production, bee behaviour, artificial insemination techniques and honey extracting technology.

Beekeeper employing one or more staff (Section B) *21 respondents (9%)*

Beekeepers responding were employing between one (52%), 2-3 (29%) or more than 3 (19%) staff; 48% owned an operation with 500-1000 hives and 52% owned over 1000 hives; 90% were honey producers and 57% also provided hives for pollination with 38% also involved in pollen production or queen rearing; over two thirds (71%) would release their employees to attend training and provide financial assistance; 48% preferred training from one day to one week with 71% preferring the autumn or winter for training; two thirds (67%) would travel at least within their region for training and those in the southern South Island (19%) would travel to Telford; one quarter (24%) had employed a student from Telford and others would consider doing so in the future; the type of training included: disease recognition, queen rearing and breeding including, a.i. techniques, hive management for pollination, understanding brood cycles, time and financial management including computer skills, botany and mechanics.

Beekeepers own needs (Section C) *61 respondents (27%)*

Beekeepers from throughout the country responded; two thirds of respondents (66%) did not employ staff, those that did, employed either one person (18%), two staff (10%) or more (6%); half (51%) were in operations with 500-1000 hives, one quarter (26%) had 100-500 hives and 18% had over 1000 hives; 93% were honey producers, 37% were also involved in pollination and 7% solely in pollination, and 18% were also involved in comb production or queen rearing; 18% had formal beekeeping qualifications; 61% of respondents were interested in receiving further training; 46% wanted training from one day to one week with 7% wanting longer training; the majority (57%) wanted training during the winter or during spring/autumn (16%); 54% would travel within at least their region for training with 16% prepared to travel to Telford, while 13% would only attend a local training program; the type of training requested included marketing, record keeping and year planning, computer applications, two queen hive management, queen rearing and a.i. techniques, bee nutrition and pollen supplements, disease identification and inspector training, bee behaviour, honey plant and hive management; it was also recommended that use be made of field days to visit successful operations and to make use of up-to-date publications and books.

My impressions

Telford provides an excellent opportunity for learning land based skills. The facilities at Telford, especially in apiculture, are good but require improvements to bring them in line with new food hygiene requirements. Telford is positioned in a unique part of the world with regard to scenery and adventure and the lifestyle is unique, although the weather conditions are not as conducive for apicultural field work as other areas of Australasia. However, the opportunity for ecotourism based education would surely be considerable. The opportunity to attract students from overseas to either full-time or correspondence study has not been fully

explored either through advertising or on the Internet.

The disease status of New Zealand is unparalleled by most countries in the world and this has not been fully exploited to date. The opportunity for export of queen bees and package bees is enormous but weather conditions and technology have limited the full exploitation of this market to date. With the increase in honey prices and the innovation in alternative bee products the viability of the industry has improved, although it will always remain a difficult industry to maintain viability because of fluctuating seasonal conditions and overseas markets.

New Zealand beekeepers have always had an ability to add value to high quality products and to respond to internal and external changes, a position that is jealously respected by other competing neighbours. If Telford can assist in providing state of the art training in the latest technology it will have achieved its objectives in providing industry with a market edge and also provided a service to the wider community.

A handwritten signature in black ink, appearing to read 'D. Woodward', with a stylized flourish at the end.

David Woodward
Tutor in Apiculture