THE CONTROL OF AMERICAN FOULBROOD

Talk by Mark Goodwin for Waikato Branch Field Day, 5 March 1993.
Notes by Nick Wallingford.

Will break the talk into two parts. The easy part is the 'where to go', the 'what to do'. The hard part will be the 'how to get there'.

OPTIONS AVAILABLE

(1) Status quo - pay 50 cents/hive for, basically, an inspection service. This is, seemingly, leading to increased incidence of AFB. Ultimately this will probably lead to the call for the feeding of drugs to control AFB. At 1-2% AFB, probably drug feeding would not have so many proponents, but at 10-15%, quite likely yes.

(2) Stabilise at current rate of infection - Would need to change something in the current control situation. Could (1) increase the cost (2) change the methods/approach. Would then need to continue in the control mode at the current level into the future.

(3) Reduce level then stabilise - Again, a new approach would be needed, possibly with an initial increase in the cost/hive. Advantage would be less continuing investment in the future to maintain at lower level.

(4) Eradication - Again, possibly more cost and a different approach needed. Probably cheapest in the long term. Ironic that it is the approach that almost every beekeeper uses in their own operation (eradicate rather than manage) but many don't think of it as a national strategy.

IS ERADICATION POSSIBLE?

Yes, but would not be easy. Estimate of 250,000 declared hives. Possibly another 150,000 that are unregistered, under-declared or feral. Looking then at 400,000 hives. Eradication sounds difficult, but compare with eradication of hydatids in Iceland, brucellosis in Australia and smallpox throughout the world and its scale does not seem so large. Does not need to be done overnight, but could take 20 to 50 years, even.

Reading through NZ Beekeeper magazines of the 1920s and 30s - all talk is of eradication, not control, of AFB. If programme is in progress/successful, can also be powerful argument against the importation of honey from other places. Even if effort fails, will likely have lower overall level to contend with into the future.

ATTITUDINAL CHANGES REQUIRED

(1) That beekeepers spread AFB, rarely bees. Apart from the robbing out of dead diseased hives, almost all AFB spread is done by the exchange of bees, brood and hive equipment bythe beekeeper.

(2) That past/current programmes are primarily MAF driven. MAF has never actually inspected more than about 5% of hives. Beekeepers inspect 99%, often several times a year.

(3) That the inspection is the important thing, not the actual destruction. Hives with low/medium infections are not really the risk prior to destruction that many believe, based on work done with AFB hives at Ruakura.

(4) Should concentrate on the spread of AFB, not the identification or elimination. Current programme could be described as trying to burn AFB hives faster than beekeepers can create new ones. Emphasis should be on education.

Only beekeepers can control AFB, ultimately...

HOW COULD ERADICATION COME ABOUT?

(1) If all beekeepers would carry out an effective spring inspection and in the autumn before removing honey. Estimates that in 2-3 years time, we'd only have 5% of the AFB we have now.

(2) Carry out full brood checks when swapping equipment (mentions special case of pollination beekeeping).

(3) Quarantine of apiary where disease is found, marking honey supers so they come back to same site. Makes the inspection more concentrated.

(4) Serious education into how AFB spreads. Most spread occurs because of variations to acceptable management practices. Variations to management occur do to lack of education/willingness of beekeepers to talk with each other about AFB.

(5) Suggestion that if disease return from beekeeper exceeds 5%, that the beekeeper be automatically approached by MAF to ensure the beekeeper is capable of dealing appropriately with the problem. Still have the problem of beekeepers who under-report disease or simply don't know the extent of the problem.

Considers that some programme based on widespread screening of apiary units based on honey and live bee tests would be best approach to identify beekeepers with problems that they might not even be aware of themselves.