

Syllabus for: History of Beekeeping (Supplementary Module)

The Candidate shall be able to give an account of:

9.1 the early domestication of western honey bees.

9.2 the work of T. W. Cowan, F. Huber (Switzerland), R. Kerr and T. Nutt, S. White, T. W. Woodbury, P. I. Prokopovych (Ukraine), J. Dzierzon (Poland) for pre-Langstroth (US) beekeeping hives.

9.3 the principles Langstroth adopted to revolutionise hive design and construction of his patented moveable frame hive.

9.4 the development, impact and use of the moveable comb top bar hive first brought to UK by Sir G. Wheeler and the development of other modern hives used in UK today.

9.5 the work of J Mehring, E. B. Weed and Capt. J. E. Hetherington in the evolution of the use of wax foundation in hives.

9.6 the work of L'Abbé S-A Collin (France), L. L. Langstroth and P. I. Prokopovych in relation to queen excluders; the use and types of queen excluder available in UK and their use.

9.7 the work of Major F. de Hruschka and T. W. Cowan in the evolution of the design of the honey extractor.

9.8 the work of Brother Adam, H. Ashforth and C. C. Miller (US) in the development of feeders.

9.9 the work in the development of smokers by M. Quinby and T. F. Bingham and how smoke was applied prior to these developments.

9.10 the work of W. B. Carr, C. Dadant, J. R. Hoffman, R. O. B. Manley, I. A. Stoller on the methods of spacing frames in hives including the measurements used and justifications as to why they might differ.

9.11 the work of R. and E. C. Porter on the concept of the bee escape and how bees were cleared from honey stores prior to this development.

9.12 the work of C. G. Butler on the design principles and use of a queen introduction cage.

9.13 the work of I. Hopkins, H. Alley, G. W. Demaree, E. Barbeau, L. E. Snelgrove, C. C. Miller and G. M. Doolittle in the development of queen rearing methods.

9.14 the contribution of Mendel, Brother Adam, B. A. Cooper, J. Dzierzon and F. Ruttner to the development of bee breeding.

9.15 the founding, history and development of the following beekeeping organisations and publications with dates:

Apimondia, British Isles Bee Breeders' Association (BIBBA)

Apis Club Central Association of Beekeepers

Bee Craft Ltd International Bee Research Association (IBRA)

British Bee Journal (BBJ) National Diploma In Beekeeping (NDB)

British Beekeepers' Association (BBKA) National Honey Show (NHS)

9.16 the history and development of beekeeping suppliers in the UK from the late 1800's to the present day.

9.17 the work of F. Huber, A. J. Janscha, B. A. Cooper, G. and N. Koeniger in relation to honey bee mating.

9.18 the work of K. von Frisch, M. Lindauer, R. Ribbands, G. A. Rosch and J. L. Gould in relation to orientation and navigation of honey bees using visual and solar clues.

9.19 the work of C. G. Butler and J. B. Free on the importance of the production of different pheromones by the honey bee.

9.20 the investigation of J. Simpson into the causes of swarming and that of T. Seeley into the behaviour of swarms.

9.21 the work of J. B. Free concerning colony organisation and activity.

9.22 the work by T. Seeley on queen communication through vibration prior to and shortly after emergence.

9.23 the work by W. M. Wheeler, B. Holdobbler and K. Delaplane on superorganisms in relation to honey bees.

9.24 the research work of A. Betts, L. Bailey and B. Ball into honey bee diseases.

9.25 the work of R. Brown, L. Davies, A. L. Gregg and H. Storch concerning the 'reading' of the honey bee hive entrance.

9.26 the introduction of honey bee strains, other than *Apis mellifera mellifera*, to the UK.

9.27 the contribution of the following authors and their publication(s) with dates when they were first published:

A. Z. Abushady D. Hodges

Rev. Charles Butler E. Hooper

F. R. Cheshire R. Morse

Rev. W. C. Cotton A. I. Root

E. V. Crane R. E. Snodgrass

H. A. Dade J. Swammerdam

J. R. G. Digges E. B. Wedmore

L. Goodman M. Winston

W. Herrod-Hempsall