SBA MODULE 8 Syllabus Issue 2014

HONEYBEE MANAGEMENT, HEALTH AND HISTORY

The Candidate taking Module 8 must have attained Modules 1, 2, 3, 5, 6 and 7 and is expected to have a broad based knowledge of beekeeping.

The Candidate shall be able to give a detailed account of:-

8.1 the assessment and management of the quality of a colony for honey production;

8.2 the management of colonies for the production of oil seed rape (Brassica spp.) and ling heather (Calluna vulgaris) honey, the techniques involved in overcoming problems associated with extracting these honeys;

8.3 the management of colonies for the production of comb honey (sections and cut-comb) and its preparation and presentation for sale;

8.4 the properties of honey including specific gravity, refractive index, viscosity, hygroscopicity, electrical conductivity, reactions to heat and ageing;

8.5 the process of honey crystallisation including factors that affect its speed, crystal size, and the texture of the final product;

8.6 the preparation and bottling of liquid honey and set honey, including the requirements of the current UK statutory regulations relating to hygiene, handling, bottling, composition, labelling and weight of packs of honey;

8.7 the identification of pollen grains by their colour, size, specific shape and structure, using named examples, and an outline of the technique of melissopalynology to determine the floral source(s) and geographic origin of honey samples;

8.8 the nutritional value of honey to the honeybee colony;

8.9 the main constituents and physical properties of beeswax and propolis;

8.10 the commercial manufacture of wax foundation;

8.11 how foundation can be made on a small scale by the beekeeper including one method of wiring frames and embedding the wiring into this foundation;

8.12 the production and use of pollen supplement and pollen substitutes;

8.13 the assessment of the qualities of a queen and her colony and their subsequent management for queen rearing;

8.14 the structure and changes in function of the exocrine glands throughout the life of the castes of a honeybee colony, and the implications this has for the management of a honeybee colony;

8.15 the management of colonies used for migratory beekeeping for both honey production and pollination services;

8.16 the use of honeybees as pollinators in orchards and fields of seed crops including arrangements to be made with the farmer/grower;

8.17 the management needed to cope with geographic localities, weather conditions and the timing of the flowering of forage plants;

8.18 methods of swarm control suitable for use in small and large beekeeping enterprises;

8.19 the setting up, and management throughout the season, of an observation hive, and the uses to which it can be put;

8.20 the preparation of a risk assessment and safety policy relating to the handling, demonstrating and

showing of live honeybees;

8.21 methods of monitoring and seasonal management of the health of colonies;

8.22 the signs of disease and pest infestations of honeybees; the potential impact on bee health, the economic effect and how these diseases and pest infestations impact on the management of the colony.

8.23 procedures related to good hygiene practices on matters of personal clothing, manipulations and equipment to prevent the spread of disease between colonies and between apiaries

8.24 the development of hives and beekeeping equipment used in the United Kingdom (refer to list in Appendix);

8.25 the life histories of one selected species of each of the following found in the United Kingdom: solitary bee, social bee (other than Apis mellifera), solitary wasp and social wasp, and their interaction with honeybees.

The Candidate will be able to give an outline account of:-

8.26 the history of beekeeping through leading contributors (listed in Appendix) to the knowledge of honeybees and beekeeping practices;

Appendix to module 8

A guide to help candidates prepare for 8.24 and 8.26

History of beekeeping

Hives	**Names**
Collateral hive	Rev Stephen White 1756, Thomas Nutt 1832
Leaf hive	Huber (Switz)
Stewarton	Robert Kerr 1819
First moveable frame hive in UK	T.W.Woodbury 1862
First Double walled hive	T.W.Cowan
WBC	W.B.Carr 1890
Langstroth and bee space	Rev L. Langstroth 1851
Dadant	Dadant
Commercial (16x 10)	Simmins
Smith	W. Smith
British National and Modified National	Evolved from various sources
Long Hive	Robin Dartington
Top Bar Hive	Bill Bielby 1968 (Catenary) Dr Maurice Smith 1971 (Kenyan Hive)
Warre Hive	Abbe Warre (1867-1951)

Introduction of Beekeeping Equipment	**Names**
Queen excluder	Abbe Collin (Fr)
Smoker	Moses Quinby, T.F. Bingham
Bee escape	E.C.Porter 1891 (US)
Frame spacing	W.B.Carr (metal ends), Hofmann, Manley
Wax foundation	J Mehring 1857 (Germany), E.B.Weed 1896 (US)
Wired frames	Capt Hetherington
Extractor	Major Von Hruschka, T.W.Cowan
Feeder	Miller, Ashforth
Queen introduction cage	Dr Colin Butler
Swarm control board	Snelgrove

Introduction of bee strains to UK	Names
Intro of Italian Bees	T.W Woodbury 1859
Intro of Carniolan	W.C.Cotton 1870
Intro of Cyprian	T.B.Blow 1887
Development of Buckfast strain	Br Adam

Development of Beekeeping methods	Names
Swarm control	Snelgrove, Taranov, Pagden
Queen rearing	Miller, Doolittle
Two queen system	G.Wells 1894
Bailey comb change	Dr L Bailey
Moveable bar combs	Sir George Whelar 1682 (introduced idea from Greece)
Bee Space	Rev. L. Langstroth

Founding of important organisations	Name
Founding of BBKA	T.W.Cowan, C.N.Abbott,
Founding of BBJ	W.B.Carr, T.W.Cowan, C.N.Abbott
Founding of E.H.Taylor Ltd	T.B.Blow
Founding of I.B.R.A	Dr Eva Crane
Founding of BIBBA	Beowolf Cooper

Research areas	Names
Swarming, spring feeding	J. Simpson
Bee behaviour	Ribbands, Rosch, Von Frisch, Lindauer, Gould
Mating outside hive	Huber, J.Janscha, Beowolf Cooper
Parthenogenesis	J.Dzierzon
Pheromones	Dr C.Butler, Dr J Free

Influential authors	Texts
Rev Charles Butler	The Feminine Monarchie
Rev W.C.Cotton 1842	My Bee Book
F.R.Cheshire 1886	Bees And Beekeeping
Dr T.W Cowan 1881	British Beekeeping Guide Book
W. Herod-Hempsall	British Beekeeping Guide Book + Other texts
A.I Root (US) 1977	ABC Of Bee Culture
Rev L Langstroth	The Hive And The Honeybee
Dr J Free	Several Texts
Brother Adam	In Search Of The Best Strains Of The Honeybee + other texts
Dr Eva Crane.	Several Major Texts
E.B Wedmore	A Manual Of Beekeeping
R.O.B Manley	Honey Farming
Ted Hooper	Guide To Bees And Honey, Encyclopaedia
Dr M Winston	The Biology Of The Honeybee
K von Frisch	The Dance Language and Orientation of Bees
M Lindauer	Communication Among Social Bees
J Gould and C Gould	The Honeybee
Annie Betts	Diseases of Bees
Dorothy Hodges	Pollen Loads of the Honeybee