Scottish Beekeepers' Association

Education and Examination Committee

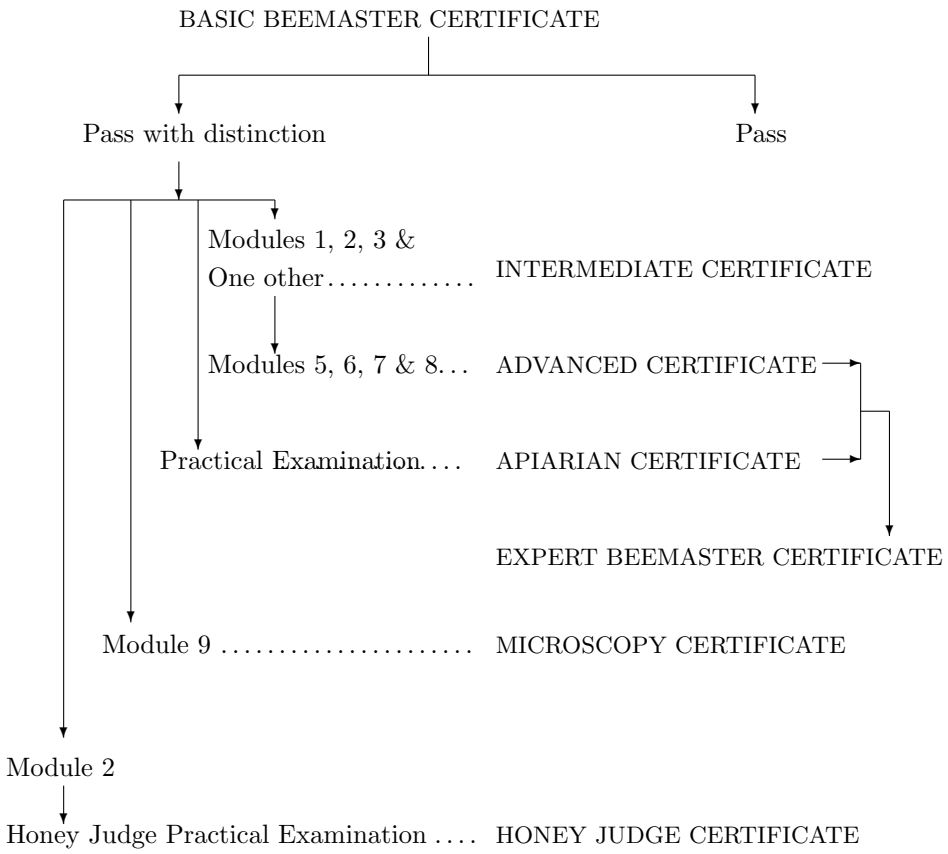
Syllabus

of Examination for Proficiency in Apiculture

Basic Beemaster Certificate

THE SCOTTISH BEEKEEPERS' ASSOCIATION

EXAMINATION STRUCTURE



THE SCOTTISH BEEKEEPERS' ASSOCIATION

THE BASIC BEEMASTER CERTIFICATE

Aims

1. To improve the standard of beekeeping in Scotland.
2. To provide beekeepers with a goal towards which they can work that will give a measure of their achievement in the basic skills and knowledge of their craft.
3. To provide a foundation for the more demanding Expert Beemaster and Honey Judge examinations.

The Examination

1. An Examiner approved by the Education Committee is required to conduct the examination at any suitable apiary. Normally only the Examiner and the candidate shall be present at the examination. Should the Education Committee wish a trainee Examiner or a member of the Committee to be present as an observer prior approval of the candidate or candidates will be obtained.
2. The examination shall comprise of two parts and the candidate must achieve the pass mark in both. The pass mark will be 50%. Candidates with a mark of 75% or more will be awarded a pass with distinction.
   (a) A practical examination of the candidate's ability to handle bees and beekeeping equipment and to interpret what is observed.
   (b) An oral examination of the candidate's understanding of basic beekeeping theory.

   The length of the examination should not exceed one hour.
3. The SBA Application form and fee shall have been received by the Education Convener.
4. As a prerequisite for entry to other SBA examinations it is normally expected that a candidate should have achieved a pass with distinction in the Basic Beemaster examination.

BOOK LIST RECOMMENDED FOR THE BASIC BEEMASTER CERTIFICATE

Title	Author	Publisher
A good introductory text		
Beekeeping for Beginners	A Richards	NBB
Recommended texts		
Guide to Bees and Honey	Ted Hooper	Blandford
An Introduction to Bees and Beekeeping	Scottish Beekeepers' Association	
Beekeeping Study Notes for:		
SBA Basic Beemaster Certificate	J. D. &B. D. Yates	BBNO
Other suitable and general textbooks are:–		
Practical Beekeeping	Clive de Bruyn	Crowwood
Beekeeping — A Seasonal Guide	R Brown	Batsford
Disease		
Managing *Varroa*		fera
Foul Brood Disease of Honey Bees		fera

Members may borrow books from the Moir Library.

BASIC BEEMASTER CERTIFICATE — EXAMINER'S REPORT

NAME OF CANDIDATE_____

PRACTICAL EXAMINATION

Syllabus Section	Learning Outcomes	Maximum Marks	Marks Awarded
1.0 Manipulation of a honeybee colony			
Opening hive & subduing bees	1.1–1.6	15 ..	_____
Handling combs/observations	1.7–1.14	20 ..	_____
Bee samples/shake comb	1.15–1.17	5 ..	_____
2.0 Equipment	2.1–2.5	10 ..	_____
3.0 Practice of Beekeeping			
Apiary siting etc	3.1–3.3	5 ..	_____
Colony Management	3.4–3.6	20 ..	_____
Swarming/Queen problems/Uniting	3.7–3.14	20 ..	_____
Moving bees	3.15–3.16	5 ..	_____
Extracting/Marketing	3.17–3.21	10 ..	_____
Apiary hygiene/disease control	3.22–3.23	10 ..	_____
	Marks	120	_____

THEORETICAL EXAMINATION

4.0 Natural History of the Bee			
Queen, Worker and Drone life cycles and functions	4.1–4.4	20 ..	_____
Ecological Aspects	4.5–4.6	5 ..	_____
Nectar/Water/Pollen/Propolis collection and use	4.7–4.8	10 ..	_____
Swarming	4.9	5 ..	_____
Winter Cluster	4.10	5 ..	_____
5.0 Diseases, Poisoning and Pests			
AFB & EFB	5.1–5.2	8 ..	_____
Acarapis/Nosema/Braula	5.3	7 ..	_____
Varroa	5.4–5.5	10 ..	_____
Advisory Service/Regulations	5.6–5.8	5 ..	_____
Pests (wax moth/mice)	5.9–5.10	5 ..	_____
	Marks	80	_____

Total Marks

Practical Examination	____
Theoretical Examination	____
TOTAL	____

5.0 DISEASES, POISONING AND PESTS

The candidate will be:

5.1 able to describe the appearance of healthy brood;

5.2 able to describe the signs of the bacterial diseases American Foul Brood (AFB) and European Foul Brood (EFB) and the fungal disease Chalk Brood and describe their effects upon the colony;

5.3 aware of acarine (a mite), nosema (a microsporidian fungus) and braula (a wingless fly) stating their effects upon the colony;

5.4 able to detect the presence of *Varroa* (a mite) and describe its effect on the colony including awareness of the effect of associated viruses;

5.5 able to describe ways of controlling *Varroa* using integrated pest management techniques;

5.6 aware of current legislation regarding notifiable diseases and pests of honeybees;

5.7 aware of the national and local facilities which exist to verify honeybee diseases and advise on treatment;

5.8 aware where to obtain assistance if any poisoning by toxic chemicals is suspected;

5.9 able to describe how comb can be stored to prevent wax moth damage;

5.10 able to describe how mice and other pests can be excluded from hives in the winter.

BASIC BEEMASTER CERTIFICATE

SYLLABUS Revised 2010

1.0 MANIPULATION OF A HONEYBEE COLONY

The candidate will be aware of:

1.1 the care needed when handling a colony of honeybees;

1.2 the reactions of honeybees to smoke;

1.3 the personal equipment needed to open a colony of honeybees and the importance of its cleanliness;

1.4 the reasons for opening a colony;

1.5 the need for stores;

1.6 the importance of record keeping.

the Candidate will be able to:

1.7 open a colony of honeybees and keep the colony under control;

1.8 demonstrate lighting and the use of the smoker;

1.9 demonstrate the use of the hive tool;

1.10 remove combs from the hive and identify worker, drone, and queen cells or cups if present;

1.11 identify the female castes and the drone;

1.12 identify brood at all stages;

1.13 demonstrate the difference between, drone, worker and honey cappings;

1.14 identify stored nectar, honey and pollen;

1.15 take a sample of worker bees in a match box or similar container;

1.16 state the number of worker bees required for an adult disease diagnosis sample;

1.17 demonstrate how to shake bees from a comb and how to look for signs of brood disease.

2.0 EQUIPMENT

The Candidate will be

2.1 able to name and explain the function of the principal parts of a modern beehive;

2.2 aware of the concept of the bee space and its significance in the modern beehive;

2.3 able to assemble a frame and fit it with wax foundation;

2.4 aware of the reasons for the use of wax foundation;

2.5 aware of the spacing of the combs in the brood chamber and super for both foundation and drawn comb and methods used to achieve this spacing.

3.0 PRACTICE OF BEEKEEPING

The condidate will be:

3.1 able to give an elementary description of how to set up an apiary;

3.2 able to describe the precautions which should be taken to avoid the honeybees being a nuisance to neighbours and livestock;

3.3 able to describe the possible effects of honeybee stings and to recommend suitable first aid treatment;

3.4 able to give an elementary description of the annual cycle of work in the apiary;

3.5 able to describe the preparation of sugar syrup and how and when to feed honeybees;

3.6 aware of the need to add supers, and the timing of the operation;

3.7 able to give an elementary account of one method of swarm control;

3.8 able to describe how to take a honeybee swarm and how to hive it;

3.9 able to describe the signs of a queenless colony and how to test if a colony is queenless;

3.10 able to describe the signs of laying workers and of a drone laying queen;

3.11 able to describe a simple method of queen introduction;

3.12 aware of the dangers of robbing and how it can be avoided;

3.13 able to describe one method of uniting colonies;

3.14 aware of the reasons for uniting bees and the precautions to be taken;

3.15 able to describe methods of securing stocks prior to moving;

3.16 able to state the risks in transporting live honey bee colonies;

3.17 able to describe a method of clearing honeybees from supers;

3.18 able to describe the process of extracting honey from combs and a method of straining and bottling honey suitable for a small scale beekeeeper;

3.19 aware of the need for good hygiene in the handling of honey for human consumption;

3.20 aware of the legal requirements for the labelling and sale of honey;

3.21 able to give an elementary account of the harvesting of beeswax;

3.22 aware of the need for good apiary hygiene;

3.23 aware of the need for regular brood comb replacement.

4.0 NATURAL HISTORY OF THE HONEYBEE

The Candidate will be

4.1 able to give an elementary account of the development of queens, workers and drones in the honeybee colony;

4.2 able to state the periods spent by the female castes and the drone in the four stages of their life (egg, larva, pupa, adult);

4.3 able to give an elementary description of the function of the queen, worker and drone in the life of the colony;

4.4 able to give a simple description of wax production and comb building by the honeybee;

4.5 aware of the importance of pollination to flowering plants, and consequently to farmers and growers;

4.6 able to name the main local flora from which honeybees gather pollen and nectar;

4.7 able to give a simple definition of nectar and a simple description of how it is collected, brought back to the hive and converted into honey;

4.8 able to give a simple description of the collection and use of pollen, water and propolis in the honeybee colony;

4.9 able to give an elementary description of swarming in a honeybee colony;

4.10 able to give an elementary description of the way in which the honeybee colony passes the winter.