Scottish Beekeepers' Association

Education and Examination Committee

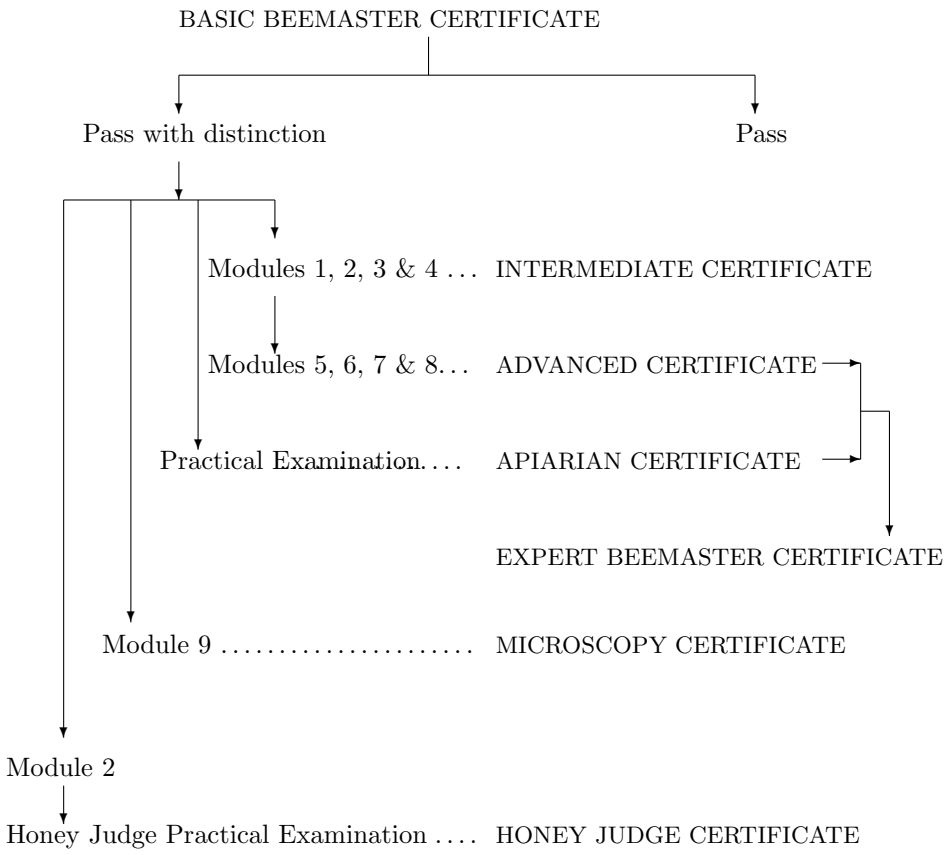
Syllabus

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 appropriate entry forms and fees shall have been received by the Education Convener.
4. As a prerequisite for entry to the Expert Beemaster examination 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	
Other suitable and general textbooks are:–		
Principles of Practical Beekeeping	R Couston	NBB
Beekeeping — A Seasonal Guide	R Brown	Batsford
Disease		
Honey Bee Brood Diseases	H Hansen	
MAFF Publications		
Diseases of Bees — Bulletin 100		
Common Diseases of the Adult Honey Bee — P3015		
Foul Brood of bees: Recognition and Control — P306		
Varroosis: A parasitic disease of honey bees — P384		

Members may borrow books from the Moir Library.

ESC 2.94

THE SCOTTISH BEEKEEPERS' ASSOCIATION

Examinations for Proficiency in Beekeeping

APPLICATION FORM

Candidate's Name..... Tel.....

Address:.....

.....

(Please print).....

Postcode.....

How many years a beekeeper?..... Present number of stocks.....

Books studied..... .....

Which Bee Journals do you read?.....

.....

Local Association..... SBA Member YES/NO

Examination(s) applied for [ ] Basic Beemaster
[ ] Module 1; 2; 3; 4; 5; 6; 7; 8; 9; (Circle as appropriate)
[ ] Apiarian
[ ] Honey Judge

Fee Enclosed:.....

Signature:..... Date: .....

N.B. A Candidate must already hold the Basic Beemaster (or other equivalent certificate) before applying for any other certificate.

Basic Certificate awarded by:..... Date: ..... Number: .....

Please send this form, with the necessary fee, to the Education Convener

BASIC BEEMASTER CERTIFICATE — EXAMINER'S REPORT

PRACTICAL EXAMINATION — NAME OF CANDIDATE_____

Syllabus Section	Learning Outcomes	Maximum Marks		Marks Awarded
1.0 Equipment	1.1–1.6	10	..	_____
2.0 Manipulation of the Colony				
Opening hive & subduing bees	2.1–2.7	15	..	_____
Handling combs/observations	2.8–2.12	20	..	_____
Bee samples/shake comb	2.13–2.15	5	..	_____
3.0 Practice of Beekeeping				
Apiary siting etc	3.1–3.3	5	..	_____
Colony Management	3.4–3.8	20	..	_____
Queen problems/Uniting	3.9–3.13	15	..	_____
Migratory Beekeeping	3.14–3.17	15	..	_____
Extracting/Marketing	3.18–3.21	10	..	_____
	Marks	115		_____

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	10	..	_____
Nectar/Water/Pollen/Propolis collection and use	4.7–4.8	10	..	_____
Swarming	4.9	5	..	_____
Winter Cluster	4.10	5	..	_____
5.0 Disease, Poisoning and Pests				
AFB & EFB	5.1–5.2	5	..	_____
Acarapis/Nosema/Braula	5.3–5.4	10	..	_____
Varroa	5.5	10	..	_____
Advisory Service/Regulations	5.6–5.8	5	..	_____
Pests (wax moth/mice)	5.9–5.10	5	..	_____
	Marks	85		_____

Total Marks

Practical Examination ____

Theoretical Examination ____

TOTAL ____

BASIC BEEMASTER CERTIFICATE

SYLLABUS Revised 1994

1.0 Equipment

The candidate should be able to

1.1 discuss personal equipment needed to open a colony of honeybees;

1.2 name the principal parts of a modern hive;

1.3 describe the significance of the bee space in the modern hive;

1.4 assemble a frame and fit it with wax foundation;

1.5 state the reasons for the use of wax foundation;

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

2.0 Manipulation of the colony

The candidate should be able to

2.1 explain the need for care when handling a colony of honeybees;

2.2 describe the reactions of honeybees to smoke;

2.3 state possible reasons for opening a colony;

2.4 assess the adequacy of the stores;

2.5 open a colony of honey bees and keep the colony under control;

2.6 demonstrate the use of the smoker;

2.7 demonstrate the use of the hive tool;

2.8 remove combs from the hive and identify worker, drone and queen cells or cups (if present), and to comment on the state of the combs;

2.9 identify the female castes and the drone;

2.10 identify brood at all stages;

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

2.12 identify stored unripe honey, honey and pollen;

2.13 take a sample of worker bees and put them in a match box or similar container;

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

2.15 demonstrate how to shake bees from a comb and how to look for brood disease.

3.0 Practice of beekeeping

The candidate should be able to

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

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

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

3.4 give an elementary description of the year's work in the apiary and of the management of a colony throughout the season;

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

3.6 discuss the need for, and the timing of, the addition of supers;

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

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

3.9 describe the signs of a queenless colony;

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

3.11 discuss the dangers of robbing and how it can be avoided;

3.12 discuss reasons for uniting honeybees;

3.13 describe one method of uniting colonies and any precautions necessary;

3.14 describe the preparation of colonies for any particular honey flow;

3.15 describe methods of securing stocks prior to moving;

3.16 state the risks involved in transporting live honeybee colonies;

3.17 describe a method used to clear honeybees from supers;

3.18 describe the process, which is suitable for the small beekeeper, of extracting honey from combs and filtering and bottling it;

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

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

3.21 give an elementary account of the harvesting of beeswax.

4.0 Natural history of the honeybee

The candidate should be able to

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

4.2 state, in each case, the periods spent in the egg, larva, pupa and adult stages by a queen, worker and drone;

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

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

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

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

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

4.9 give an elementary description of swarming in the honeybee colony;

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

5.0 Disease, Poisoning and Pests

The candidate should be able to

5.1 describe the appearance of healthy brood and how it differs from diseased brood or chilled brood;

5.2 describe the signs of the bacterial diseases American Foul Brood (AFB) and European Foul Brood (EFB);

5.3 describe the effect on a colony of *Acarapis woodi* (a mite), *Nosema apis* (a protozoan) and *Braula coeca* (a wingless fly);

5.4 distinguish between *Varroa destructor* and *Braula coeca*;

5.5 describe methods for detecting and monitoring the presence of *Varroa destructor* and describe its effect on the colony;

5.6 state the notifiable diseases pertaining to the honeybee;

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

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

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

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