

APPLICATION TO ENTER

Application to Enter

These should be made through the Local Examination Secretary of the Count Beekeeping Association or directly to the BBKA Examinations Board Secretary at the Address given below. Applications are required not later than 28th February in the year the Assessment is to be taken.

Application Form

Any application must be accompanied by a completed Application Form together with the Examination Fee. Cheques should be made payable to BBKA. The dates when relevant certificates were obtained must be entered on the Application Form. Certificates should not be sent.

Ensure that the Certificate of Qualification, on the Application Form, is completed by a Competent Person.

Assessment Fee

The current fee for the Assessment may be obtained from the Local Examination Secretary or the Board Secretary.

AUTHORITY

The above is issued by the BBKA Examinations Board and all communications in respect of this Assessment should be addressed to:

The Secretary,
BBKA Examinations Board,
The British Beekeepers' Association,
R.A.S.E.,
Stoneleigh Park,
Kenilworth,
Warwickshire.
CV8 2LG

Price £1:00

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General Certificate in Beekeeping Husbandry

PROSPECTUS

Aims

To encourage all new and many existing beekeepers to improve their understanding and practice of beekeeping.

The Candidate will be able to demonstrate a broad range of beekeeping skills and adequate understanding. The Candidate will be required to show that their management of colonies is aimed at producing a strong healthy force of foraging bees for the expected honey flows and that the resultant crop is processed for consumption in a hygienic manner with due regard to legal requirements.

Conditions of Entry

The Candidate shall have been awarded the BBKA Basic Certificate or an equivalent certificate acceptable to the Board. The date when this certificate was awarded shall be entered on the Application Form.

The Candidate shall have kept and managed bees for at least three years. A Competent Person who is familiar with the Candidate's beekeeping shall sign a statement to this effect, on the Application Form.

The Secretary to the Board shall have received a completed Application Form and fee by the 28th February in the year the Candidate intends to be assessed.

The Assessment

The Assessment will normally be conducted in May, June or July at the Candidate's apiary and will last about two hours. The Assessor will visit the Candidate's apiary and test his/her practical skills and knowledge of the important aspects of beekeeping and bee products, as defined in the Syllabus. The Assessor will observe the Candidate's practical skills at opening and manipulating colonies and note the correct use of beekeeping equipment and apiary hygiene. Honey preparation facilities will be inspected and the Candidate will describe their procedures for extracting and packaging honey. The Candidate's understanding of beekeeping, as covered in the Syllabus will be assessed through a discussion with the Assessor who may use the Candidate's Record Book as the basis of the assessment.

An Assessor appointed by the Board shall conduct the Assessment except for a retake when there will normally be two Assessors. The Board may wish a trainee Assessor or Board member to be present as an observer, but prior written agreement of the Candidate shall be obtained.

Preparation

The Candidate will prepare their apiary to show their approach to general beekeeping, queen rearing and swarm control. The Candidate may decide to attend a series of lectures, join a study group or follow private study using standard texts to prepare for the Assessment. Suggested texts and specialist leaflets are listed after the Syllabus. In addition, the Candidate will be required to have kept a Record Book of activities in the apiary for at least a season. Guidance notes on Maintaining Beekeeping Records are available from the BBKA and are recommended for all beekeepers even if they are not taking this Assessment.

Equipment

The Candidate will ensure the following equipment is ready prior to the Assessment, for inspection by the Assessor, and ready for immediate use:

Three Honey Production Colonies of honeybees.

One Nucleus Colony of honeybees.

Sufficient spare equipment: for preparing colonies for moving elsewhere;
 for feeding the colonies;
 to produce an artificial swarm;
 for queen introduction;
 for queen marking and clipping;
 for swarm collection.

Honey and wax processing and packing equipment.

Samples of liquid and set honey labelled as for sale. (a minimum of 6 jars)

Blocks of wax suitable for sale. (minimum weight 25 g)

Personal protective equipment.

Procedure

The Assessor will observe the Candidate's practical skills at opening and manipulating colonies and note the correct use of beekeeping equipment and apiary hygiene. Honey preparation facilities will be inspected and the Candidate will describe their approach to extracting and packaging honey. The Candidate will also be assessed on understanding of beekeeping as covered in the Syllabus. The Assessor may decide to use the Candidate's record book to lead the discussion on beekeeping. Assessors will use standardised assessment sheets supplied by the Examinations Board so that the outcome may be moderated if necessary.

Award of Certificate

There are no grades given. The Candidate either reaches the required standard or not. The candidate will normally be informed of the outcome within six weeks of the Assessment. The Certificate will be sent to the Local Examination Secretary for presentation to the successful candidates at a later date.

Record Keeping

The Record Book is used to give an overview of the Candidate's beekeeping activities and to help plan the work in the season. If it is kept as a Filofax it is possible to insert the hive record cards into the book to provide a complete record of the beekeeping season. However, many beekeepers prefer to keep their hive record cards with their hives. If this is done it is important to keep the cards in the dry and away from the bees otherwise they will chew up the card and all the records will be lost. The Record Book comprises three parts:

- **The Apiary Layout**

This can be pictorial and shows the location of each colony in the apiary and how they are marked. It is always recommended that hives are marked in some way so that other beekeepers and the public can identify the owners. Talk to your local beekeeping Association about the marking system used in your area. Individual record cards may also be kept with this section.

- **Plans for work in the Apiary**

This section will hold plans for managing the colonies in the apiary. It is particularly useful to record the activities and timings planned for queen rearing and swarm control. It can also be used as a reminder for repairing hives or buying new equipment. There is no special format for this section but most record keepers find it useful to plan activities using a simple diary approach.

If there is any concern over the general vigour or health of a colony it can be marked here as a reminder to replace certain queens or re-site colonies.

Information will also include the dates when inspections and manipulations are needed to raise new queens and other activities requiring forward planning, such as the preparation needed to provide a colony for an observation hive at a show.

- **Records of the season**

This will give information on the quantity of honey collected during the season and the quality of the queens. Records will also include the state of the hives and the work needed during the winter months to prepare for the next season.

Record Book

The Record Book may be kept in any convenient form by the Beekeeper and will be used to record the activities and conditions found on each and every inspection of a specific hive. It will also provide information on the performance of the apiary including the quantity of honey taken and processed from the hives.

The Record Book will provide a continuous record for at least one season.

There will be an entry in the Record Book each time the beekeeper visits the apiary and manipulates a colony.

The beekeeper will enter the date and time of the visit and for each colony and will use a quantitative method of assessing the following attributes of the colony:

- The existence of a queen from no evidence to laying queen observed or witnessed.
- The existence or otherwise of queen cells/cups.
- The temper of the colony from very docile to unworkable.
- The degree of disease and probable diseases seen.
- The brood size and pattern.
- Quantity of stores available (including pollen).
- Available space for colony expansion.
- Hive hygiene.

The Record Book will be used to record the activities of the beekeeper, such as:

- Feed.
- Frames/supers added or removed.
- Queen rearing activities.
- Swarm control activities.
- Disease control activities including the use of acaricides.
- Cleaning activities.
- Details of swarms collected.

More Information may be found in the BBKA leaflet 'Maintaining Hive Records'. An overview of the information required is given in the section on Record Keeping which follows.

General Certificate in Beekeeping Husbandry

SYLLABUS

General

- 1.1 The Assessment will take place at the Candidate's apiary.
- 1.2 The practical assessment will be conducted on any suitable day agreed with the Assessor in May, June or July. A minimum of three of the Candidate's own colonies shall be made available for examination. It is desirable that the Candidate's colonies are good tempered and do not follow more than about 5 metres from their hive.
- 1.3 In addition to three colonies, there shall be a queen-right nucleus for developing into a colony, or alternatively a mating nucleus used in conjunction with a queen rearing procedure.
- 1.4 The Candidate shall have in hand at the time of the assessment, a queen rearing procedure underway to demonstrate the Candidate's ability to rear queens suitable for the needs of the apiary.
- 1.5 On the day of the Assessment the Candidate's Record Book and any individual hive records shall be made available to the Assessor.
- 1.6 The Assessor will look for satisfactory use of the smoker and proficient manipulation of bees during the required demonstrations.
- 1.7 The Candidate will be able to describe the more usual situations that may result in honeybees becoming a nuisance to the public or livestock.
- 1.8 The Candidate will discuss methods of beekeeping and how these have been influenced by local conditions. Reference will be made to the choice of hives from those types commonly in use in the area, the merits of top and bottom bee space and apiary equipment.
- 1.9 The Candidate will describe the procedures for general maintenance including preservation of hives, fumigation of comb and equipment, prevention of wax moth damage, the use of predator guards, storing combs and general apiary hygiene.
- 1.10 The Candidate will describe the associated dangers of robbing and describe the methods in place to prevent robbing and to end robbing once started.

- 1.11 The Candidate will describe the methods used to minimise drifting and circumstances when diverting bees to another colony can be an advantage.

Practical Beekeeping

The Candidate will be able to demonstrate understanding of, and ability to perform the following tasks:

- 2.1 Describe the role of good hygiene in the apiary. The candidate will demonstrate satisfactory procedures, both with personal effects and apiary equipment.
- 2.2 Describe the appearance of healthy brood and, in contrast, the appearance of larvae, brood pattern and cell capping that will require further investigation.
- 2.3 Describe the procedures taken to avoid or reduce the transmission of infectious diseases and demonstrate that these are followed. Spare equipment used by the Candidate will be examined.
- 2.4 List the reasons for comb renewal and demonstrate the procedures adopted.
- 2.5 Discuss the progress of the colonies as described in the Record Book and the intentions for the rest of the season.
- 2.6 Review the age of existing queens and plans for their replacement. Describe how replacement of queens is carried out.
- 2.7 Describe the methods taken throughout the year to monitor and control varroa to non-damaging levels. Demonstrate the use of varroa control equipment in the apiary. Examine a brood chamber and floor for varroa. Demonstrate the use of comb for trapping mites in drone cells.
- 2.8 Describe the routine measures taken to look for disease in the colony.
- 2.9 Demonstrate the inspection of a brood comb for brood diseases.
- 2.10 Demonstrate taking a sample for the diagnosis of adult bee diseases.
- 2.11 Describe the factors that may initiate swarming and the indications that a colony is making preparations to swarm. Describe the economic and social effects of swarming and the procedures that are used to control swarming. Describe the procedures for creating an artificial swarm or any other method that may be used to ensure a colony does not swarm.

Stings

The Candidate will be able to:

- 7.1 Describe how to deal with a person who has been stung by a bee but shows no effect other than discomfort and slight local swelling.
- 7.2 Describe precisely the action to take when a person who has been stung by a bee, exhibits a severe reaction or anaphylactic shock.

Suggested Reading Texts

Practical Beekeeping	Clive de Bruyn
A Guide to Bees and Honey	Ted Hooper
Foul Brood diseases of honey bees	MAFF
Varroa jacobsoni monitoring and forecasting mite populations	MAFF
So you wish to sell Honey	BBKA leaflet
Bees and Neighbours	BBKA leaflet

- 5.12 Describe what action can be taken by beekeepers to avoid damage to honeybees by spraying.
- 5.13 Describe the signs that suggest a case of poisoning. Describe the actions that should be taken. Describe how a sample of affected bees is collected, packaged and labelled and where this is sent.

Honey and Honey Processing

The Candidate will be able to:

- 6.1 Demonstrate the apiary equipment normally used specifically for the production of honey, including super comb frames and spacers; section apparatus; queen excluders, devices for clearing bees from supers. Discuss their use.
- 6.2 Discuss the preparation of colonies for specific nectar flows in the area.
- 6.3 Demonstrate the equipment used to extract and prepare the honey produced in the apiary and show the place used for processing and packing honey.
- 6.4 Have available for inspection by the Assessor, typical samples of packed honey ready for the table and for retail sale.
- 6.5 Describe the arrangements made by the Candidate for extracting honey from the comb and the preparation of Comb Honey.
- 6.6 Describe the processing and storage arrangements for the honey and packaging for sale.
- 6.7 Describe how the requirements for public health and safety, consumer protection, food hygiene, as overseen by the Environmental Health Officer, apply to Candidates in the area.
- 6.8 Demonstrate familiarity with current regulations and any other statutory requirements as they affect those offering honey for sale.
- 6.9 Describe Liquid Honey and Set Honey (both granulated and soft set) and a method that may be employed to obtain these with good quality results, including mention of the recommended temperatures for satisfactory results.
- 6.10 Describe the spoilage of honey particularly by fermentation (including the effect of water content, storage temperature and the presence of yeast).

- 2.12 Describe the procedures used up to the time of the assessment in the queen rearing method demonstrated and explain what has yet to be done. Describe what is intended for the queens that have successfully mated. Describe the procedure that will be adopted to introduce queens into a colony.
- 2.13 Demonstrate marking and clipping a queen, or use a drone as a substitute if appropriate.
- 2.14 Describe the advantages of marking and clipping queens.
- 2.15 Describe the procedures adopted for adding supers.
- 2.16 Describe the procedures adopted when removing supers for honey extraction.
- 2.17 Describe how combs and cappings are dealt with after extraction. Refer to the methods adopted for clearing bees from supers and any treatment of the supers and combs that is routinely carried out before storage.
- 2.18 Describe how the colonies are prepared for winter and the timing of carrying out these arrangements.
- 2.19 Describe methods and reasons for feeding sugar syrup, candy, pollen and pollen substitute.
- 2.20 Describe how super combs are stored and the measures taken to combat wax moths.
- 2.21 Discuss the influence of honey production on apiary procedures.
- 2.22 Demonstrate how to prepare a colony for moving to another apiary.
- 2.23 Describe procedures used for moving a colony a short distance within an apiary and to another site beyond normal flying distance, making reference to the difficulties and dangers involved.
- 2.24 Describe the procedures used to prepare a nucleus colony. Discuss the many uses for a nucleus colony.
- 2.25 Describe the actions required to deal with a vicious stock of bees.
- 2.26 Demonstrate the procedures used for uniting two colonies and the precautions that need to be taken.
- 2.27 Demonstrate how beeswax is recovered with reference to the actual equipment used.

Natural History and Behaviour

The Candidate will be able to describe the following and explain their relevance to practical beekeeping:

- 3.1 The different races of honeybees and their characteristics.
- 3.2 The main external features of the drone and the two female castes.
- 3.3 The function of the hypopharyngeal glands, the Nasonov gland, the wax glands, the alimentary canal and the sting of the worker and queen.
- 3.4 The factors in the production of brood, which result in workers, drones and queens.
- 3.5 The mating of drones and queen.
- 3.6 The main stages in the development of the brood from egg to emerging adult and also the life expectancy of workers, drones and queens.
- 3.7 The changing circumstances throughout a year that influences the egg laying of a queen, indicating how the numbers will vary.
- 3.8 The nutritional requirements of honeybees and their main sources.
- 3.9 The signs in a colony of a drone laying queen and laying workers. Explain how these may arise and how they may be dealt with.
- 3.10 The seasonal variation in the hive population during a year including survival behaviour in winter.
- 3.11 The effect of weather on a summer colony and foraging.
- 3.12 The type of work done by a worker honeybee throughout its life including reference to summer and winter bees.
- 3.13 The collection of nectar and how it is converted into honey suitable for storing in sealed comb.
- 3.14 The collection of pollen and how it is carried to the colony and used.
- 3.15 The production of wax and how it is used in the colony.
- 3.16 The collection of water and propolis and how they used in the hive.
- 3.17 The factors that may give rise to swarm, supersedure and emergency queen cells.
- 3.18 The use made by honeybees of the alarm pheromones and the effect these have on the way bees are managed.

Foraging

The Candidate will be able to demonstrate understanding of:

- 4.1 The main plants of local importance to the bees throughout the year, giving details of flowering times.
- 4.2 Any measures taken by the Candidate to enable the bees to forage on a particular crop and any special action needed as a result of foraging on local crops or a crop to which bees have been taken. Rape, Heather and Borage are three possible examples.
- 4.3 Honeydew, being able to name sources and describe the impact of honeydew in the area of the Candidate.
- 4.4 Any sources of undesirable nectar found in the locality of the Candidate.

Disease, Pests and Poisoning

The Candidate will be able to:

- 5.1 Describe how disease can be spread between colonies and how good management practice can reduce disease occurring.
- 5.2 Describe the signs of American Foulbrood.
- 5.3 Describe the signs of European Foulbrood.
- 5.4 Describe what actions shall be taken to comply with statutory requirements if a brood disease is suspected.
- 5.5 Describe how to distinguish between female Varroa and female Braula coeca.
- 5.6 Describe the method adopted in the Candidate's apiary to monitor and control Varroosis.
- 5.7 Discuss the impact of virus damage related to Varroosis
- 5.8 Discuss the impact of re-infestation of Varroa on the management and timing of Varroa control.
- 5.9 Describe the impact of Nosema disease on a honeybee colony, and its diagnosis and treatment.
- 5.10 Describe Acarine, its detection and recommended method(s) of control.
- 5.11 Describe Chalk Brood and Sac Brood, detection and control measures.