An Introduction to the NBU New eLearning Site

By Jason Learner, National Bee Unit

Ever eager to bring you new ways of topping up your beekeeping knowledge, the NBU has developed an exciting, web-based eLearning portal delivered via BeeBase, as Jason Learner explains.

Some of you may recall, from previous articles published by the National Bee Unit (NBU), that we have been developing a new eLearning programme for beekeepers. Over the last year, with the help of David Blower, the BBKA's Education Coordinator, we have been working with the BBKA's Education Network to finalise the product for public use. During this testing phase, a group of beekeepers went through the eLearning site, testing each topic in turn and providing feedback. We then made changes to the modules and quizzes based on this. I am pleased to tell you that this process is now complete and this new and exciting eLearning platform is ready for you to use. I will now outline our eLearning facility, how you can access it and some potential future development plans.

What is eLearning?

You may, perhaps, be wondering what eLearning is. It is the means of educating and learning via a course or curriculum, using electronic technologies such as your computer, mobile phone or tablet device, online and outside of the traditional classroom. This brings many benefits and enables you to complete a piece of structured learning at your own pace, in the comfort of your own home or on the move and inside of your own schedule.
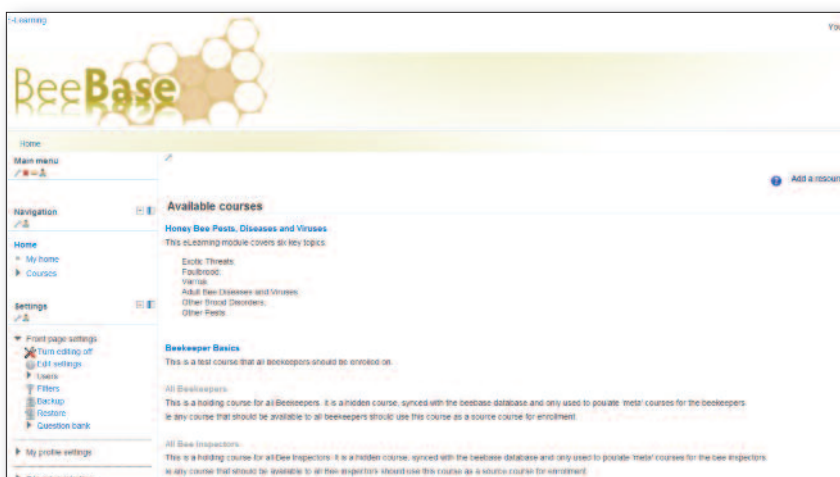
The National Bee Unit's eLearning programme

Our first eLearning module; 'Honey Bee Pests, Diseases and Viruses,' covers six main topics. It is aimed at those beekeepers who are new to the craft or who have never completed any formal training, although more experienced beekeepers may also wish to use it as a refresher. The topics covered in this module are:

Exotic Threats: This topic covers the life cycle of the two statutory notifiable pests; Small hive beetle and *Tropilaelaps* ssp., and information on the Asian hornet, an emerging threat for honey bee colonies in the UK. The aim of the topic is to give beekeepers an understanding of the impact each pest could have on UK beekeeping and the plans to be put in place should they arrive here. Additionally, through learning about the biology of each species, beekeepers will discover how to identify and monitor them in order to aid early detection.

Foul brood: Beekeepers will be taken through the biology of American foul brood (AFB) and European foul brood (EFB), shown what symptoms to look out for in their colonies and be advised of their responsibilities under statutory legislation. The eLearning also covers how to prevent infection and spread of the pathogens and the available controls should a colony become infected with either of these diseases.

Varroa: Beekeepers will explore the problems faced by *Apis mellifera* since the introduction of the mite, *Varroa destructor*. By learning about the life cycle of the mite, you will discover why it is such a huge problem and what can be done to control it. Beekeepers will be taken through some of the basic husbandry methods used to monitor mite populations and one of the biotechnical controls (methods which mitigate the use of varroa treatments) used to help reduce mite populations during the season. Additionally, the topic will outline how mites develop resistance to

varroacides and what the beekeeper can do to prevent or delay resistance in their colonies. Finally, the topic will outline the importance of using 'Integrated Pest Management' systems in order to keep colonies healthy.

Adult Bee Diseases and Viruses: Beekeepers will learn to identify adult bee diseases such as nosemosis, acarapisosis (tracheal mite), amoebiasis and some honey bee viruses. You will learn which symptoms are attributed to each disease and virus, the ways in which they are spread between colonies and, if available, what treatments to use.

Other Brood Disorders: This topic will outline how to identify the signs of other, more minor, brood disorders such as chalk brood, sac brood, bald brood, black queen cell virus, drone-laying queens and laying workers. Beekeepers will learn how each brood disorder is spread between colonies and what can be done to minimise and control the effects of each disorder.
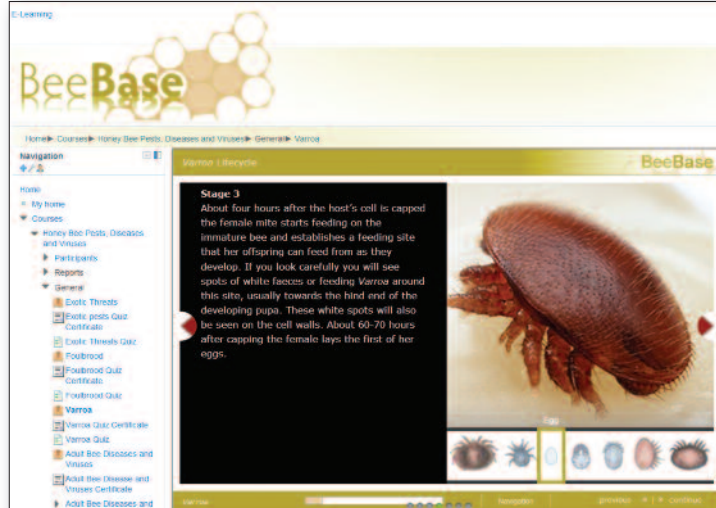
Other Pests: In the final topic, beekeepers will learn how pests such as rodents, wax moth, woodpeckers, wasps and badgers can cause problems for colonies within the UK. By the end of the module we hope that you will be able to identify signs of each pest in the apiary and know what can be done to manage them.

At the end of each topic there is an informal five question 'knowledge check' to review your understanding of the topic you have just covered. You will be required to select the correct answer from a range of pictorial, multiple choice or mix and match formatted questions. After completing the knowledge check you have the option to complete a further ten question quiz, as a more formalised assessment of learning and based on this a certificate is produced. However, it should be noted that this certificate is not a formal qualification; it is only a means to monitor your own personal development.

The length of each topic varies depending on the learning requirement, but overall the module should take about two hours to complete. The platform also includes a useful navigation tool to allow users to quickly refer back to an individual page or section. We hope that this will improve the ease with which the programme can be used as a reference tool for long term use.

How do I access the eLearning suite?
This eLearning is completely free of charge and can be accessed via the NBU's website; BeeBase. You will need to log-in to access it and will, therefore, need to register as a beekeeper if you have not already done so. Although not compulsory, it is important to sign up to BeeBase not only to be able to access the eLearning, but so that we can help protect your colonies better. By registering, you will receive pest and disease alerts regarding incidents in your area, enabling you to take extra precautions when inspecting your colonies. If we do not know where apiaries are, then in the event of a foul brood or exotic pest outbreak, we will not know where to send our Bee Inspectors and our eradication and containment efforts will be seriously jeopardised. You can register yourself on BeeBase via the following link: www.nationalbeeunit.com

Once registered, beekeepers will then need to log-in to their secure area where they will find an 'eLearning' tab to the left hand side of the navigation bar. By clicking on this the beekeeper will be redirected to the eLearning platform where they can access the above content. Like all our material, the aim of the module is to provide you with a good understanding of the issues that might affect colony health. It will be available on most mobile devices and tablets, although you will need to make sure that your web browser is up-to-date, otherwise you may experience compatibility issues with some of the content.

Future developments
If the eLearning proves a successful education tool, future plans for the eLearning include advanced modules for more experienced beekeepers looking at some of the more technical management techniques for pests and diseases. If you have any suggestions for possible topics then please contact me directly at Jason.learner@apha.gsi.gov.uk