



Dr. Peter Stöfen

Spring letter 2019

Dear beekeeping colleagues, dear customers and friends,

A short while ago, I had the opportunity to listen to two of the most renowned experts on the subject of beekeeping at a meeting in Oberlausitz. One of these experts was the zoologist Prof. Dr. R. Paxton from the University of Halle. His research team focuses on the effects of viruses, in particular the Deformed Wing Virus/DWV that currently afflicts so many bees. He explained that the virus, in conjunction with the Varroa mite is primarily responsible for the loss of colonies. At the same time the DWV genome is highly infectious and other viruses are of secondary importance. It is not currently possible to combat these viruses. The only option left open to us beekeepers is to combat the problem indirectly by **reducing the mite population.**

Prof. Paxton presented his project „Varroa-resistant bees in Saxony“. He provided a detailed overview of the broad palette of measures that can be taken to combat the mites. Every single solution is fraught with problems, whether because of the impact on the bees or because of the complex technological measures necessary to implement the measures. Consequently, beekeepers are pursuing a policy of breeding Varroa-resistant bees.

The primary reason for our long journey all the way across to the other side of the country was to get some further information from Paul Jungels on the state of play with regard to attempts to breed Varroa-resistant bees. It should be noted that he has played a leading

role in restoring the reputation of Buckfast bees in Europe. Moreover, he is considered to be one of the pioneers in the area of resistant breeding. He has been able to produce results that could hardly even be imagined a short time ago.

In spring of 2013 I was in Luxembourg and at the time, while listening to the remarks of our American colleague Bob Danka, it seemed that

The wise learn from
the wise,
the fools from their
own mistakes!

the chances of practically implementing the required measures were very low. Having been so negatively mentally conditioned, I was perturbed on the long drive home. Happily, Paul Jungels interpreted this information in a different way. As an aside it is worth mentioning that he has been a guest in my house on 2 occasions.

He couldn't believe the breeding possibilities which are open to us as a result of the concentration and sheer quantity of mating stations all along the North Sea coast.

It is not possible to boil the complex content of his presentation down to a few short sentences. Nevertheless, it is worth attempting to set out the cornerstones of his approach:

Single-drone-insemination: This process results in greater clarity according to his remarks. The characteristics of a colony with only one paternal figure can be better assessed and in a more targeted manner. Due to the relatively low sperm concentration in the spermatheca of the queen, the colonies can only be sustained in small units (Mini Plus). This modus operandi in small colonies has been continually devel-



oped and optimised so that the small colonies can first hibernate over the course of a winter and then be examined in the following year. The single-drone-insemination allows for a considerable reduction in the number of attempts that are needed when compared with insemination by drones of diverse origins and pedigree. Three light-brown combs are placed into the middle of the brood nest of the small colonies that are kept in small hives. Within 36 hours these are uniformly studded and are infected by 120-150 mites. 14 to 24 days later the brood is counted. The sealed brood is opened cell by cell and the level of Varroa infestation is measured. This test alone allows for positive Varroa Sensitive Hygien (VSH) hereditary dispositions to be determined.

This form of selective breeding is considerably more difficult than the standard hygiene test of the sealed brood. Measuring and evaluating the colonies can only occur at a period in time during which there is considerable pressure caused by the presence of Varroa mites. Hence it is only possible at the end of the season and it requires a significant amount of time be invested into this process. When queried, it was confirmed that brood hygiene and VSH only have a limited correlation to each other.

Our apiary as well as the Buckfast breeding cooperative in Friedrichskoog are not in a position to carry out all of the steps described by Paul Jungels as outlined briefly above. Consequently, we do not refer to our Buckfast-queens as VSH-queens. Even if the parents demonstrate VSH hereditary dispositions, there is no indication that the daughters necessarily also have this predilection. Any other assertion would be untrustworthy and would be unfair to all concerned in breeding VSH characteristics.

Having said that, we will continue to conduct the hygiene test. At the same time, we will be partially breeding with queens that possess verified VSH-characteristics. For example, the

drone mother for this year at the breeding station in Friedrichskoog was treated the last time in 2015. It can be assumed that she will manage to overcome the mites. We are continuing on our journey: allowing the queens to age and mature without any treatment whatsoever and evaluating the natural cases of mite infestation.

At the same time, we will be keeping a close eye on the tried and trusted Buckfast characteristics. This bee has been my constant companion for a number of years. I wouldn't want to be without them and were it not for them I probably wouldn't still be an active apiarist. Let us hope that we manage the delicate tightrope act of working with a bee that brings us high amounts of honey, is slow to swarm and placid and that it will manage to overcome the challenges of mite infestations as well. They won't be declared to be VSH-queens. We will be putting all our efforts over the next years into achieving this high aim. And we are optimistic that we will succeed.

Our breeding lines in 2019:

Drone mother

Breeding station Friedrichskoog

B15 (LE) = .16 - GR 65(LE) mrk B59 (MKN)

.15.- B103(IC) ilv mrk GR53(MKK)

The description of B15 will be made available shortly on our new website, which is currently under development. It has proven to have overcome the mites since approx. 1,100 days and illustrates all of the desired Buckfast characteristics as a result of 4 matings at breed stations. In the last few days we have carried out a hygiene test on all of our colonies using a coolant spray. Only 3 of 52 colonies showed house-cleaning behaviour of less than 85 %.

Breed mothers 2019

B69 (BZF) = .17-B92(DB) frkg144(HS)

B52 (BZF) = .17-B92(DB) frkg144(HS)

B71 (BZF) = .17-B92(DB) frkg144(HS)



As has been the case in previous years, we have made a careful selection of 3 from the **35 drone colonies** that remain from last year and we will transfer the larvae from this selection. This is my main occupation as a breeder: producing a well-bred bee, which has all the characteristics of a Buckfast bee. You will find a detailed description in our spring letter from 2018.

These breed mothers will provide us with the usual high quality economy queens, queens inseminated at the mating station as well as our select queens. We are pleased to be able to maintain the prices for the economy queens at last year's level. However, due to significant increases in the costs associated with operating the mating station we have had to make some minor increases in the prices for queens inseminated at the mating station in Friedrichskoog.

In addition, we will be in a position to offer a limited amount of daughters from **breeding mothers with a distinct hygienic behaviour**, which should be well able to cope with mites. These will primarily be descendants of bees produced by Jos and Annette Guth as well as Detlev Biel, which have then been mated at the mating station in Friedrichskoog. The respective pedigrees associated with each individual bee will be supplied along with your order. The great interest and the high number of orders for the hygiene+ queens shows that many beekeepers think similarly and want to follow this path with us. This breeding work is carried out in parallel to the usual breeding. In the autumn letter 2018 and on the website of the mating station in Friedrichskoog ([\[belegstelle-friedrichskoog.de\]\(http://belegstelle-friedrichskoog.de\)\), which is currently still under construction, we will be able to provide you soon with further information on the conceptual basics and the planned procedure of our breeding cooperative regarding the production of bees with distinct hygiene behaviour or with VSH characteristics.](http://www.buckfast-</p></div><div data-bbox=)

Orders

As always, you can start placing orders on our homepage:

<https://www.buckfast-zucht.de>

We are also completely remodelling the homepage at the moment to improve our service for our loyal clients. Please also feel free to place your orders using the order form included with this letter. There you will find all the information on the new prices and the shipping dates. The first shipping date for economy queens is 11.06.2019. Shipping of mating station queens starts approximately one week later. As every year we will be able to inform you about the shipping dates at the same time as the order so that you can plan better.

The fact that we ship exclusively by DHL-Express within Germany has proven its worth over the past year. And we have good success by using RFID-Responders for our shipments abroad. Given that the express parcel services do not transport bees in their aircraft, we really have no alternative.

Due to the extremely high demand at the moment, we recommend that you place your order in the near future to avoid disappointment.

May we all have a great year with our bees, may we always have luck in our dealings with our charges and may the elements favour us this season. It is in this spirit that I wish you much success and, above all, personal fulfilment in dealing with your protégés.

Kind regards,

Peter Stöfen



Order 2019	Quantity	Item	Price in EUR (incl. VAT)
		Package of 3 economy queens subject to availability, shipment from 11 June	114,-
		Buckfast breeding queen mated at the mating station Friedrichskoog subject to availability, shipment from 25th June to end of August	65,-
		Buckfast breeding queen selected, mated at the mating station Friedrichskoog subject to availability, shipment from 25th June to end of August	109,-
		Hygienic +, Buckfast breeding queen, selected, mated at the mating station Friedrichskoog subject to availability, shipment from 25th June to end of August	169,-
	Preferred shipping date:		
Shipping options	<input type="checkbox"/> Germany, ExpressEUR 18,- per delivery of up to 7 queens <input type="checkbox"/> Overseas, StandardEUR 20,00 Warenbrief International, priorité, with RFID tracking per delivery of up to 7 queens, islands might be more expansive Due to long shipping times we deliver to Romania, Bulgaria, Greece, Spain and Portugal only at the buyer's risk and after having received the payment. Please keep in mind that RFID tracking is not available in all regions of Europe.		
Contact details	Family name Mr / Mrs		First name
	Company		
	Address		
	Postcode	City	
	Country		
	Telephone number		
	Email address		
	<p>Payment: You will receive your invoice with your order confirmation.</p> <p>You are kindly asked to settle the invoice not later than 3 weeks prior to shipping.</p> <p>Shipping: Approximately one week prior to shipping, you will receive an email to ensure that the queens can be received safely.</p>		

(Date / Signature)

Infos: <https://www.buckfast-zucht.de>