

What is the Varroa population in my colonies?

Anton Imdorf and Jean-Daniel Charriere, Bee Dept, FAM, Liebefeld, 3003 Bern, Switzerland
 Translation: Ro Rayner

HOW MANY MITES ARE IN THE COLONIES? - many beekeepers will have to ask themselves this question in spring this year. Why? The effectiveness of Apistan and Bayvarol has lessened in various regions of Switzerland due to a growing resistance in Varroa. Under these conditions more mites may overwinter than is desirable. To avoid this problem, many beekeepers have changed over to formic acid.

For the formic acid treatment, long-term applications, such as the Krämer plate or the new fixed-dose equipment from Nassenbeider or Burmeister, were available, as well as the well-known short term treatment. In September 1996, climatic conditions were far from ideal for good results with formic acid and Apilife VAR. Moreover, many users had little experience with the new dosing equipment, or recommendations for the new equipment had not been tested for the Swiss Hive. Therefore treatment success was certainly not optimal in all cases. Control of

natural mite fall in October, or random sample application of oxalic or lactic acid in colonies without brood could have been used as control.

Critical infestation at the end of May

For those who have not carried out checks using inserts towards the end of 1996, natural mite fall can be measured with inserts protected by a grid covering the entire hive floor over 1-2 weeks at the end of May.

If mite fall is on average above 3 per day, treatment must not be delayed until the beginning of August. A one-week formic acid treatment in a long-term dose applicator, or 2 short-term treatments within a week must be carried out immediately after the Spring honey flow.

A treatment with formic acid at the beginning of June is not generally recommended. Therefore treatment between honey flows

should only be carried out where really necessary. Slight enrichment of honey with formic acid cannot be excluded in the following harvest. In areas where there is no interruption in the honey flow the treatment time can be delayed, depending on the degree of infestation.

How are the results of controlling natural mite fall (see table above) to be interpreted?

(1) If mite fall is 10/day at the end of July, feed can be given and optimal temperatures for the start of formic acid treatment can be waited for. If 10 mites fall daily at the end of May, the degree of infestation at the end of July will lie beyond the threshold unless husbandry measures such as culling out drone brood or making nuclei have been taken. Treatment at the beginning of June is therefore absolutely necessary. Beekeepers with a few colonies can also treat with lactic acid at any time except during a honey flow.

(2) If mite fall is around 20 per day, treatment should be given in any case during the following two to three weeks.

(3) If mite fall is higher than 30 a day, treatment must be organised without delay. Waiting for several weeks will result in the loss of colonies.

*From Schweizerische Bienen-Zeitung
 May 1997*

Mite fall and degree of infestation	
Natural mite fall per day	Degree of infestation
smaller than 1	low
1-10	acceptable for the moment (1)
11-30	approaching damage threshold (2)
greater than 30	Past damage threshold (3)

SHERRIFF

Protective Clothing for Beekeepers

S21
Size: S/M/L/EL
Veil & Vest

S28
Size: S/M/L

S41 Jacket
Size: S/M/L
White or Khaki

S36
Apiarist Suit
Size: S/M/L
White or Khaki

Detachable hood

SHERRIFF INTERNATIONAL

'FIVE PINES' MYLOR DOWNES, FALMOUTH
 CORNWALL TR11 5UN, ENGLAND
 e mail: sherriff.int@btinternet.com
 Home page: <http://www.btinternet.com/~sherriff.int/>

Name: _____

Address: _____

Post code: _____

Cheques payable to B.J.SHERRIFF
 I wish to pay by VISA/MASTERCARD. My number is:

Signed: _____ card expiry date: _____

**Dial-a-
 FREE
 brochure**

