

VERIFICATION TESTING IS A MUST

FOR INFESTATION LEVELS, RESISTANCE AND TREATMENT EFFICACY!

YOU MUST KNOW WHAT YOU HAVE!

TEST CHART SPRING – APRIL 11-16, 2005

Hive Number & Location O = Outside circle I = Inside circle Test for Treatment		Natural Drop Apr 11 (4:30pm) to Apr 15 (1:30 pm) Total x .258 93Hr 24Hr		Acid Drop Apr 15 (3:30 pm) to Apr 16 (4:30 pm) Total x .960 25Hr 24Hr		Treatment Efficacy and Resistance Multiple	Hive Evaluation 2 Story Langstroth Before ND - Frames of brood Frames of bees top box Boosted to Pol. Strength after ND			
Spring Treatment 2 half pads, 12g of acid, 21 days*1 Fall Treatment Apistan 2strips in top box Excluding QL natural drop Average 4.20 Olympic 3.19	O1	10	2.58						8	4
	O2	6	1.55						8	4
	O3	46	11.86	123	118.08	9.95x			8	4
	O4	5	1.28	17	16.32	12.75x	2F	1F brood	6	3
	O5	21	5.42	102	97.92	18.06x			8	4
	O6	9	2.32	9	8.64	3.72x			8	4
	O7	7	1.80				3F	Nuk	7	QL
	O8	17	4.38						8	4
	O9	6	1.55				3F	Nuk	7	QL
	O10	10	2.58				4F	Nuk	6	QL
Formic Acid 21 days*2 2 half pads 12 gram/day ND Ave- 3.190 Olympic 2.06	I 1	5	1.28						7	3
	I 2	10	2.58						7	3
	I 3	9	2.32	6	5.67	2.44x	2F		6	3
	I 4	2	0.51	5	4.80	9.41x			7	3
	I 5	36	9.28	45	43.20	4.65x			8	4
Formic Acid 21 day*2 3 half pads 18 gram / day ND Ave – 1.70 Olympic 1.37	I 6	7	1.80	5	4.80	2.66x			8	4
	I 7	14	3.61						8	5
	I 8	3	0.77						5	2
	I 9	3	0.77				3F	1F brood	8	4
	I 10	6	1.55						8	4

Total Natural Drop ↑
Collected for 3 – 5 Days
Natural Drop interpolated
into 24 Hours

Acid drop interpolated into 24 hours
Acid drop collected during the
first 24-48 hours after application

*1) SPRING 21 TREATMENT DAYS: Pads were installed April 15 and left for 40 days until the making of nukes (May 25)

*2) FALL 21 TREATMENT DAYS: Pads were installed on September 3 and left over winter until April 15 when 80% were reused by re-soaking. On very strong hives, bees may chew the comb around the pads. Our hives have 10-12 frames of bees and do not chew out the comb around the pads.

LOOKING AT THE CHART:

- These are the same hives as the ones in the fall (August- September) 2004 tests. For reference, print the Verification Testing August 30, 2004 document to compare the results. (go to www.mitegone.com - click on *PRINT LITERATURE* and then click on *SCIENTIFIC EVIDENCE*.)
- The counts were done courtesy of our local bee inspector Redge Kainast. Thanks Redge!
- The outside 10 hives were treated in the fall with fluvalinate. The inside hives # 1-5 were treated with formic acid using two MiteGone half pads. Hives # 6-10 were treated with 3 half pads of formic acid. In each section there is a natural drop average and the Olympic average (when you delete the highest and lowest entry). We also deleted queen-less hives from the count. All queen-less hives occurred in hives treated with fluvalinate. Also, the queen must have died recently as the hive was still okay with plenty of bees but no brood.
- While all treatments performed very satisfactorily and confirmed that we have no full resistance to fluvalinate, both averages point out that three pads of acid produced the best results. The results were three times better than Fluvalinate and twice as good as the two pads.
- This test reconfirms our **Rule of Thumb:** USE ONE PAD FOR EVERY FIVE FRAMES OF BEES AND BROOD – USE A MINIMUM OF THREE PADS IN THE FALL. USE HALF PADS FOR LOW AND MEDIUM INFESTATIONS. USE FULL LENGTH PADS FOR HIGH INFESTATIONS (more than 15 mites in prorated 24 hour natural drop).
- All hives were equalized to pollination strength before the spring acid treatment and all hives were treated with two half pads. An efficacy test was performed on three hives that were not affected by equalization and one hive boosted in each fall treatment group aiming at the highest natural drops. Five times or better efficacy is hard to reach in the spring if your counts are low (1-3 mites in the prorated 24-hour natural drop.)
- IF YOU HAVE A LOW COUNT TREAT ANYWAY – you will have an easier time in the fall.
- **TRACHEAL MITES:** As always, we took a random sample from each of 20 hives totaling about 300 bees and sent this sample to the Jaque Bunse lab for slicing. This is the first time in our history that we found two mites in 75 sliced bees. This is a 2.6% infestation and is considered negligible.
- **IF YOU TREAT VARROA WITH ACID, YOU WILL ALSO BE TREATING THE TRACHEA.**
- **COMMERCIAL BEEKEEPERS:** In the fall, bring 20-24 hives randomly selected (1-2 from each yard in a common geographic area) to a convenient location creating a test yard circle (15 ft radius to the outside hives) facing the hives on pallets in and out of the circle. This setup eliminates drifting and will give you a good idea of your infestation levels and treatment efficacy.

**TEST THE SAME HIVES IN THE FALL AND SPRING.
WITHOUT TESTING, YOU ARE
PLAYING RUSSIAN ROULETTE!**