Table S1. List of primers and probes used in the real-time PCR analysis. All probes were labelled with FAM as a reporter and TAMRA as a quencher, with the exception of SBV 331T and APV 121T, which are MGB (Minor Groove Binding) probes.

Target	Probe	Primer sequence (5' to 3')
18S[1]	Bee 18S F	TGTTTTCCCTGGCCGAAAG
	Bee 18S R	CCCCAATCCCTAGCACGAA
	Bee 18S Probe	CCCGGGTAACCCGCTGAACCTC
AIV[2]	AIV 12F	GGCTAGTAAACGTAGTGGATATGACAAT
	AIV 106R	CACCTGGTGGTCCAAGAGAAG
	AIV 41T	TGATTGGAAATATATCTTCTTTAATAAACCCAGTT GCTCC
APV[2]	APV 95F	TCCTATATCGACGACGAAAGACAA
	APV 159R	GCGCTTTAATTCCATCCAATTGA
	APV 121T (MGB)	TTTCCCCGGACTTGAC
BQCV[2]	BQCV 9195F	GGTGCGGGAGATGATATGGA
	BQCV 265R	GCCGTCTGAGATGCATGAATAC
	BQCV 8217T	TTTCCATCTTTATCGGTACGCCGCC
CPV[2]	CPV 304F	TCTGGCTCTGTCTTCGCAAA
	CPV 371R	GATACCGTCGTCACCCTCATG
	CPV 325T	TGCCCACCAATAGTTGGCAGTCTGC
DWV[2]	DWV 9587F	CCTGGACAAGGTCTCGGTAGAA
	DWV 9711R	ATTCAGGACCCCACCCAAAT
	DWV 9627T	CATGCTCGAGGATTGGGTCGTCGT
IAPV[3]	IAPV B4S0427_R130M	RCRTCAGTCGTCTTCCAGGT
	IAPV B4S0427_L17M	CGAACTTGGTGACTTGARGG
	IAPV Probe	TTGCGGCAATCCAGCCGTGAAAC
KBV[2]	KBV 83F	ACCAGGAAGTATTCCCATGGTAAG
	KBV 161R	TGGAGCTATGGTTCCGTTCAG
	KBV 109T	CCGCAGATAACTTAGGACCAGATCAATCACA
SBV[2]	SBV 311F	AAGTTGGAGGCGCGyAATTG
	SBV 380R	CAAATGTCTTCTTACdAGAGGyAAGGATTG
	SBV 331T (MGB)	CGGAGTGGAAAGAT
Trypanosomatids[4]	SEF	CTTTTGGTCGGTGGAGTGAT
	SER	GGACGTAATCGGCACAGTTT

[1] Chantawannakul *et al.,* 2006. [2] Ward *et al.,* 2007. [3] Kajobe *et al.,* 2010. [4] Meeus *et al.,* 2010

Table S2. Frequency and confidence interval ($CI_{95\%}$) of the general characteristics, pathogens and pesticides for the 99 apiaries sampled in the study.

Variables	n	%	$CI_{95\%}$	
			Inf	Sup
General characteristics[1] of sampled apiaries				
Operation size				
1-14	23	23.7	14.7	32.7
15-149	57	58.8	48.5	69.1
>150	17	17.5	9.4	25.6
Palynological *(detected)*				
Wild vegetation	94	94.9	88.6	98.3
Crops	5	5.1	1.7	11.6
Pathogens[2] detected in bee samples				
A. woodi [3]	16	16.2	8.4	23.9
BQCV *adult*	94	94.9	88.6	98.3
BQCV *brood*	53	53.5	43.2	63.9
DWV *adult*	94	94.9	88.6	98.3
DWV *brood*	81	81.8	73.7	89.9
KBV *adult*	5	5.1	1.7	11.4
N. apis [3]	4	4.0	1.1	10.0
N. ceranae [3]	38	38.4	28.3	48.5
P. larvae	6	6.1	0.9	11.3
SBV *adult*	2	2.0	0.2	7.1
SBV *brood*	2	2.0	0.2	7.1
V. destructor (brood)	35	35.4	25.4	45.3
V. destructor (exterior)	39	39.4	29.3	49.5
V. destructor (interior)	49	49.5	39.1	59.8
Trypanosomatids adult	52	52.5	51.5	52.5
Pesticides detected in stored pollen				
Bromopropylate	1	1.1	0.0	5.5
Chlorpyrifos	1	1.1	0.0	5.5
Fluvalinate	13	13.1	5.9	20.3
Chlorfenvinphos	2	2.0	0.2	7.1

[1]Characteristics with low heterogeneity are not shown in the table but they are described in the text. [2]*Ascosphera,* AIV, IAPV, ABPV and CBPV were not detected. [3] Pathogens determined only in exterior adult bees

Table S3. Varroa control treatment. Correct posology of each product. Frequency and degree of compliance declared by the 99 beekeepers included in the study for each product.

Product	Correct posology		Nº of responders (%)	Degree of compliance n (%)		
	Nº strips	Weeks		Nº strips	Nº weeks	Both
Apistan	2	6 to 8	70 (70.7)	63 (90)	32 (45.7)	29 (41.4)
Apistan/Bayvarol	2 or 4	6 to 10	3 (3.0)	3 (100)	3 (100)	3 (100)
Apivar	2	6 to 10	4 (4.1)	2 (50)	1 (7)	0 (0)
Bayvarol	4	6 to 8	14 (14.1)	7 (50)	8 (57.1)	4 (28.6)
Homemade	-	-	6 (6.1)	-	-	-
Non-responders			2 (2.0)			