

Supporting information: L Morawetz, H Köglberger, A Griesbacher, I Derakhshifar, K Crailsheim, R Brodschneider, R Moosbeckhofer; Health status of honey bee colonies (*Apis mellifera*) and disease-related risk factors for colony losses in Austria

**S9 Table. Metric colony characteristics related with survival in summer 2015 (summer losses) and winter 2015/16 (winter losses), respectively.** For each variable the number of cases (N), the median and the first (Q1) and third quartile (Q3) are given. Differences between the groups of alive and dead colonies were tested with a Wilcoxon Rank Sum Test (significant differences highlighted in gray). cols = colonies, yrs = years. n = 1569 colonies.

Season of loss	Variable	Colonies alive after the season		Colonies dead after the season		statistics
		N	Median (Q1-Q3)	N	Median (Q1-Q3)	
Summer losses	Varroa infestation level summer	1521	0.3 % (0.0-0.8 %)	42	1.3 % (0.0-2.8 %)	W = 20754, P < 0.001
	Experience as a beekeeper	1554	26.0 yrs (12.0-35.0 yrs)	42	31.0 yrs (10.0-48.0 yrs)	W = 29162, P = 0.239
	Company size	1544	33.0 (17.0-70.0 cols)	42	20 cols (9.0-54.0 cols)	W = 39614, P = 0.014
	Apiary size	1544	15.0 cols (10.0-20.0 cols)	42	9 cols (8.0-17.0 cols)	W = 40349, P = 0.009
Winter losses	Varroa infestation level summer	1394	0.1 % (0.0-0.8 %)	127	0.6 % (0.0-2.3 %)	W = 111430, P < 0.001
	Varroa infestation level autumn	1407	0.5 % (0.0-1.8 %)	124	3.5 % (0.8%-10.4 %)	W = 129220, P < 0.001
	Experience as a beekeeper	1423	27.0 yrs (13.0-35.0 yrs)	131	20.0 yrs (9.0-31.0 yrs)	W = 107240, P = 0.004
	Company size	1415	33.0 cols (17.0-75.0 cols)	129	37.0 cols (22.0-55.0 cols)	W = 93348, P = 0.668
	Apiary size	1423	15.0 cols (10.0-21.0 cols)	131	15.0 cols (8.5-20.0 cols)	W = 101430, P = 0.094
	Honey harvest per colony	1392	28.0 kg (20.0-40.0 kg)	131	27.0 kg (20.0-35.0 kg)	W = 93283, P = 0.661