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Bee Informed Partnership Sentinel Apiary Report

Beekeeper: Year: 2019
Sample Kit Code: SAPX

Report date: 10/12/20

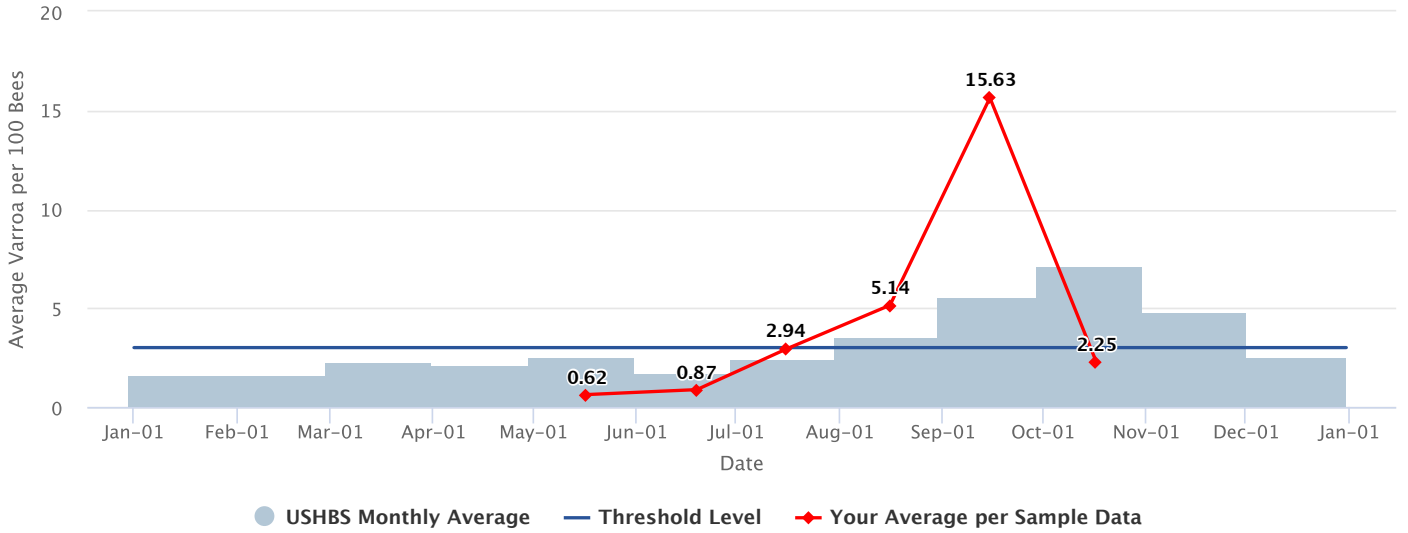
Varroa (mites per 100 bees)						
Hive	May	June	July	August	September	October
S19-SAPX-1	0.8	0.4	2.5	4.5	17.1	
S19-SAPX-2	1.5	0.3	0.6	1.5	13.9	1.3
S19-SAPX-3	1.4	1.9	6.2	14.8	56.2	0.0
S19-SAPX-4	0.0	0.5	1.4	1.8	8.0	5.9
S19-SAPX-5	0.0	1.0	5.0	8.7	8.1	4.0
S19-SAPX-6	0.3	1.1	1.7	3.8	13.0	2.1
S19-SAPX-7	0.0	0.6	0.3	1.3	4.6	
S19-SAPX-8	1.0	1.3	5.8			
S19-SAPX-9				4.9	4.2	0.3
Your Monthly Average	0.62 ±0.52 (8)	0.87 ±0.47 (8)	2.94 ±1.99 (8)	5.14 ±3.83 (8)	15.63 ±14.21 (8)	2.25 ±2.41 (6)
USHBS Average	2.53 ±0.26 (599)	1.7 ±0.13 (1144)	2.41 ±0.2 (932)	3.49 ±0.21 (1197)	5.49 ±0.34 (1259)	7.12 ±0.44 (1036)
Sentinel Average	1.04 ±0.23 (379)	1.45 ±0.26 (389)	2.82 ±0.5 (398)	3.35 ±0.57 (380)	5.95 ±1.07 (344)	6.67 ±1.09 (317)
Sentinel Last Year Average	0.99 ±0.22 (458)	1.18 ±0.32 (502)	1.99 ±0.33 (495)	2.75 ±0.41 (475)	2.73 ±0.4 (420)	4.45 ±0.61 (365)

- Data presented: average ± 95% Confidence Interval (# of samples)
- The ± 95% Confidence Interval represents the range of expected values for 95% of the data. Observations outside this range may have occurred, but we consider those outliers and not representative of the majority of the data.
- Sentinel Average, Last Year includes Sentinel data starting in June 2013.
- APHIS Honey Bee Disease Survey is a national effort sponsored by USDA Animal and Plant Health Inspection Service (APHIS) in collaboration with the Agricultural Research Service (ARS) and University of Maryland (UMD). To date, the data provided for the APHIS monthly average is a composite of data from 2009 - Present.
- We consider => 5 mites per 100 bees (highlighted in red) as approaching a high threshold at or beyond where you may want to consider some varroa mite control strategy.
- If you collected two sets of samples within the same calendar month, they are reported in the two separate closest months in this table. Example, samples collected on May 30th may show up in the June column if you already have samples collected earlier in May.

Nosema (millions of spores per bee)						
Hive	May	June	July	August	September	October
S19-SAPX-1	0.0	0.3	0.0	0.0	0.0	
S19-SAPX-2	0.2	0.0	0.0	0.0	0.0	0.1
S19-SAPX-3	0.0	0.0	0.0	0.0	0.0	0.0
S19-SAPX-4	0.0	0.1	0.0	0.0	0.0	0.0
S19-SAPX-5	0.1	0.1	0.1	0.0	0.0	0.0
S19-SAPX-6	1.1	0.0	0.0	0.0	0.0	0.1
S19-SAPX-7	2.3	0.6	0.0	0.2	0.3	
S19-SAPX-8	0.1	0.3	0.1			
S19-SAPX-9				0.0	0.0	0.0
Your Monthly Average	0.47 ±0.67 (8)	0.16 ±0.18 (8)	0.02 ±0.03 (8)	0.03 ±0.06 (8)	0.03 ±0.07 (8)	0.04 ±0.07 (6)
USHBS Average	2.53 ±0.26 (599)	1.7 ±0.13 (1144)	2.41 ±0.2 (932)	3.49 ±0.21 (1197)	5.49 ±0.34 (1259)	7.12 ±0.44 (1036)
Sentinel Average	1.21 ±0.23 (379)	0.45 ±0.11 (389)	0.19 ±0.05 (398)	0.23 ±0.1 (380)	0.18 ±0.07 (340)	0.18 ±0.07 (317)
Sentinel Last Year Average	1.05 ±0.17 (459)	0.49 ±0.11 (502)	0.12 ±0.05 (495)	0.14 ±0.05 (471)	0.29 ±0.14 (421)	0.22 ±0.06 (365)

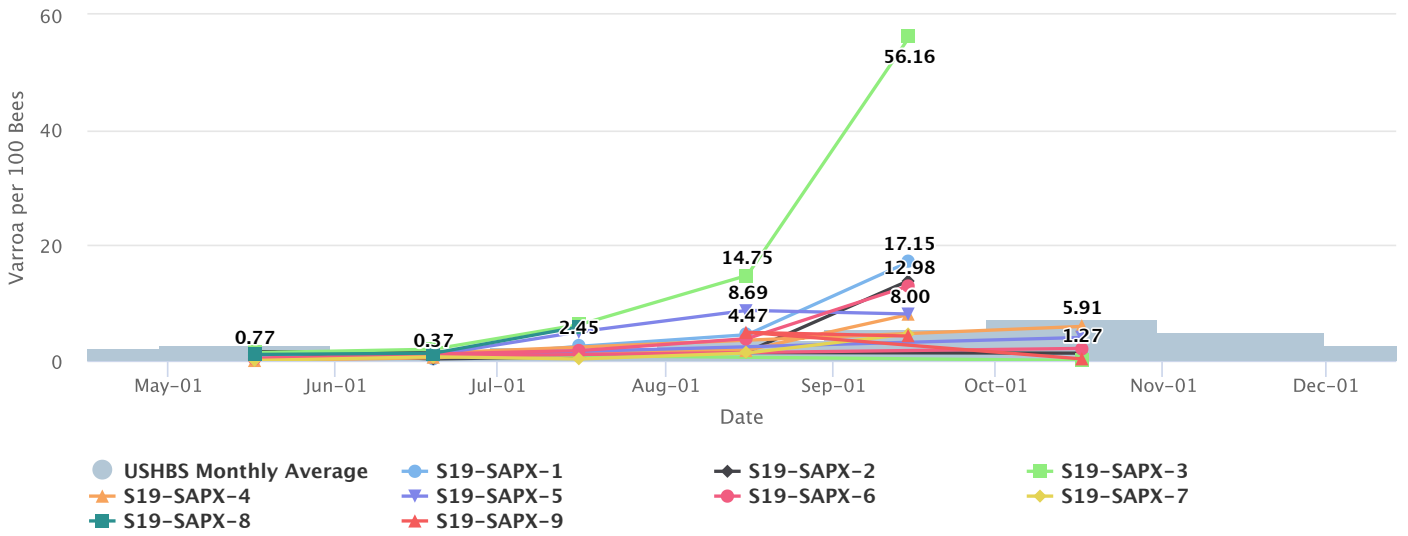
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- Sentinel Average, Last Year includes Sentinel data starting in June 2013.
- APHIS Honey Bee Disease Survey is a national effort sponsored by USDA Animal and Plant Health Inspection Service (APHIS) in collaboration with the Agricultural Research Service (ARS) and University of Maryland (UMD). To date, the data provided for the APHIS monthly average is a composite of data from 2009 - Present.
- We consider => one million spores per bee (highlighted in red) to be the acceptable threshold in a hive. Your nosema levels will fluctuate with temperature and colonies' sun exposure every month.

Average Varroa per 100 Bees in 2019 for Your Samples Compared to the National Average



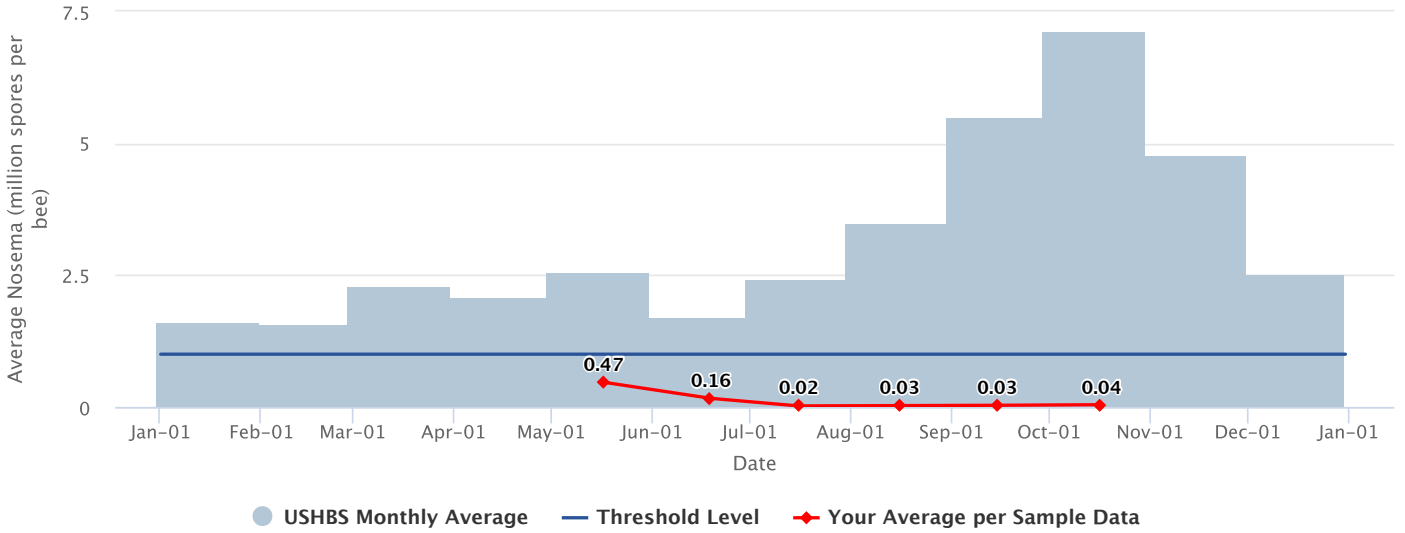
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Varroa per 100 Bees per Colony in 2019 for Your Samples Compared to the National Average



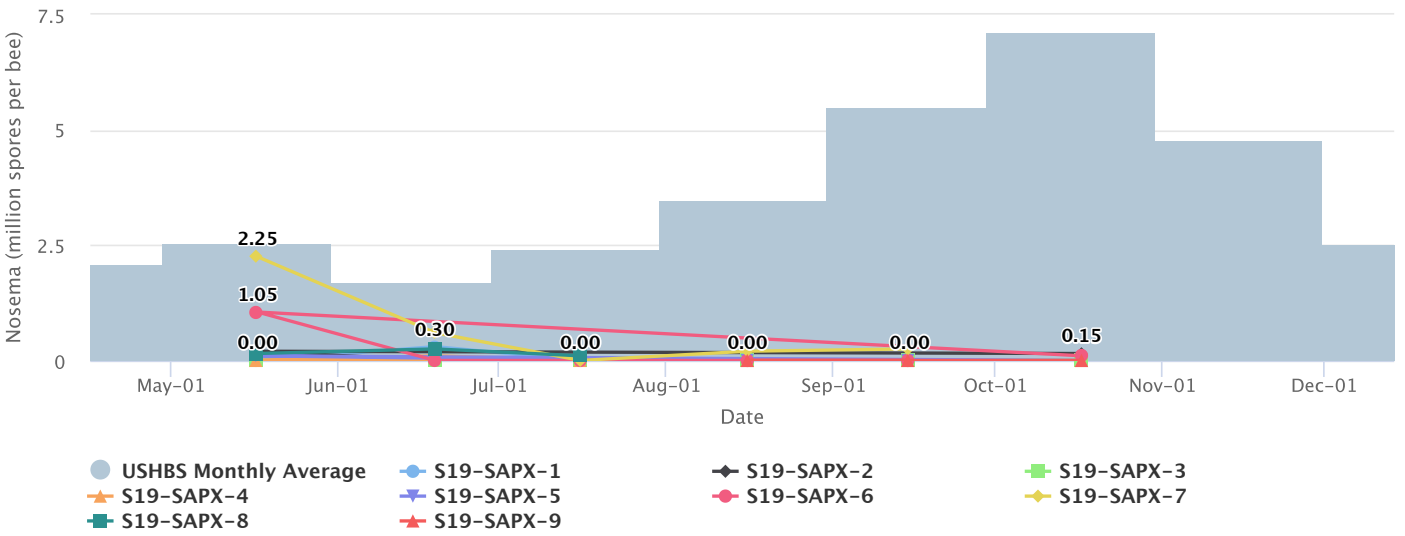
Highcharts.com

Average Nosema in Million Spores per Bee in 2019 for Your Samples Compared to the National Average



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Nosema in Million Spores per Bee per Colony in 2019 for Your Samples Compared to the National Average



Highcharts.com

All Samples for year

Hive	Sampling Date	Queen Status	Brood Pattern	Frames of Adults	Particular Observation	Recent Management	# Bees in Sample	# Mites / 100 Bees	Millions of Spores per Bee
S19-SAPX-1	May 17, 2019	QL	5.0	5.0	took queen 5/9		261	0.8	0.00
S19-SAPX-2	May 17, 2019	QS	4.0	2.5	queen has only been laying 5 days		331	1.5	0.20
S19-SAPX-3	May 17, 2019	QS	5.0	10.0			295	1.4	0.00
S19-SAPX-4	May 17, 2019	QR	5.0	16.5			374	0.0	0.00
S19-SAPX-5	May 17, 2019	QR	3.0	6.5			370	0.0	0.10
S19-SAPX-6	May 17, 2019	QS	5.0	10.0			300	0.3	1.05
S19-SAPX-7	May 17, 2019	QR	5.0	8.0	queen has only been laying 15 days		341	0.0	2.25
S19-SAPX-8	May 17, 2019	QS	4.0	8.0	queen has only been laying 15 days		289	1.0	0.15
S19-SAPX-1	June 19, 2019	QS	5.0	5.0	hopguard 6/5	treatment	269	0.4	0.30
S19-SAPX-2	June 19, 2019	QS	5.0	4.0	hopguard 6/5	treatment	380	0.3	0.00
S19-SAPX-3	June 19, 2019	QS	5.0	12.0	new queen, they either swarmed or superceded, lots of emerging brood and eggs, no larvae, hopquard 6/5	treatment	307	1.9	0.00
S19-SAPX-4	June 19, 2019	QS	5.0	16.0			435	0.5	0.10
S19-SAPX-5	June 19, 2019	QR	4.0	7.0			312	1.0	0.05
S19-SAPX-6	June 19, 2019	QR	4.0	7.0	6/13 took 13 frames of brood and bees		360	1.1	0.00
S19-SAPX-7	June 19, 2019	QR	4.0	6.0	8 frames o fbees on 5 frames, super crowded		316	0.6	0.60
S19-SAPX-8	June 19, 2019	QL	0.0	0.0	5/25 took Q, 5/26 introduced virgin, 6/5 hopquard, 6/19 obsconded	treatment	318	1.3	0.25
S19-SAPX-1	July 16, 2019	QR	5.0	5.0			366	2.5	0.00

All Samples for year

Hive	Sampling Date	Queen Status	Brood Pattern	Frames of Adults	Particular Observation	Recent Management	# Bees in Sample	# Mites / 100 Bees	Millions of Spores per Bee
S19-SAPX-2	July 16, 2019	QR	4.0	4.5			323	0.6	0.00
S19-SAPX-3	July 16, 2019	QR	5.0	11.0			353	6.2	0.00
S19-SAPX-4	July 16, 2019	QR	5.0	17.0			345	1.4	0.00
S19-SAPX-5	July 16, 2019	QR	5.0	6.0			382	5.0	0.05
S19-SAPX-6	July 16, 2019	QR	4.0	6.0			351	1.7	0.00
S19-SAPX-7	July 16, 2019	QR	4.0	7.0			382	0.3	0.00
S19-SAPX-8	July 16, 2019	QR	3.0	5.0			394	5.8	0.10
S19-SAPX-1	Aug. 16, 2019	QS	4.0	5.0			380	4.5	0.00
S19-SAPX-2	Aug. 16, 2019	QR	4.0	5.0			328	1.5	0.00
S19-SAPX-3	Aug. 16, 2019	QR	4.0	12.0			325	14.8	0.00
S19-SAPX-4	Aug. 16, 2019	QR	4.0	13.0	1 cell with sacbrood		395	1.8	0.00
S19-SAPX-5	Aug. 16, 2019	QS	4.0	5.0			333	8.7	0.00
S19-SAPX-6	Aug. 16, 2019	QS	2.0	4.0	No sign of disease. Really spotty brood pattern.		343	3.8	0.00
S19-SAPX-7	Aug. 16, 2019	QS	4.0	8.0	Some bald brood		386	1.3	0.20
S19-SAPX-9	Aug. 16, 2019	QR	4.0	5.0	Some bald brood		410	4.9	0.00
S19-SAPX-1	Sept. 15, 2019	QS	3.0	3.0	some melted larvae		338	17.1	0.00
S19-SAPX-2	Sept. 15, 2019	QR	3.0	3.0			352	13.9	0.00

All Samples for year

Hive	Sampling Date	Queen Status	Brood Pattern	Frames of Adults	Particular Observation	Recent Management	# Bees in Sample	# Mites / 100 Bees	Millions of Spores per Bee
S19-SAPX-3	Sept. 15, 2019	QR	4.0	10.0			245	56.2	0.00
S19-SAPX-4	Sept. 15, 2019	QR	5.0	12.0			362	8.0	0.00
S19-SAPX-5	Sept. 15, 2019	QS	2.5	7.0			372	8.1	0.00
S19-SAPX-6	Sept. 15, 2019	QR	1.0	6.0	PMS awful!!!		323	13.0	0.00
S19-SAPX-7	Sept. 15, 2019	QR	1.0	2.0	PMS awful!!!		282	4.6	0.25
S19-SAPX-9	Sept. 15, 2019	QR	4.0	5.0			331	4.2	0.00
S19-SAPX-1	Oct. 17, 2019	QL	0.0		Absconded!	treatment			
S19-SAPX-2	Oct. 17, 2019	QS	4.0	4.0		treatment	316	1.3	0.15
S19-SAPX-3	Oct. 17, 2019	QS	5.0	2.0		treatment	262	0.0	0.00
S19-SAPX-4	Oct. 17, 2019	QS	4.0	8.0		treatment	389	5.9	0.00
S19-SAPX-5	Oct. 17, 2019	QS	4.0	2.0		treatment	350	4.0	0.00
S19-SAPX-6	Oct. 17, 2019	QS	3.0	2.0		treatment	383	2.1	0.10
S19-SAPX-7	Oct. 17, 2019	QL	0.0		Absconded!	treatment			
S19-SAPX-9	Oct. 17, 2019	QS	4.0	4.5		treatment	393	0.3	0.00

- Hive # highlighted in blue indicates hive scale installed. Yellow indicates pollen trap installed.