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Bee Informed Partnership Sentinel Apiary Report

Beekeeper: Year: 2020
Sample Kit Code: SAZP

Report date: 10/29/20

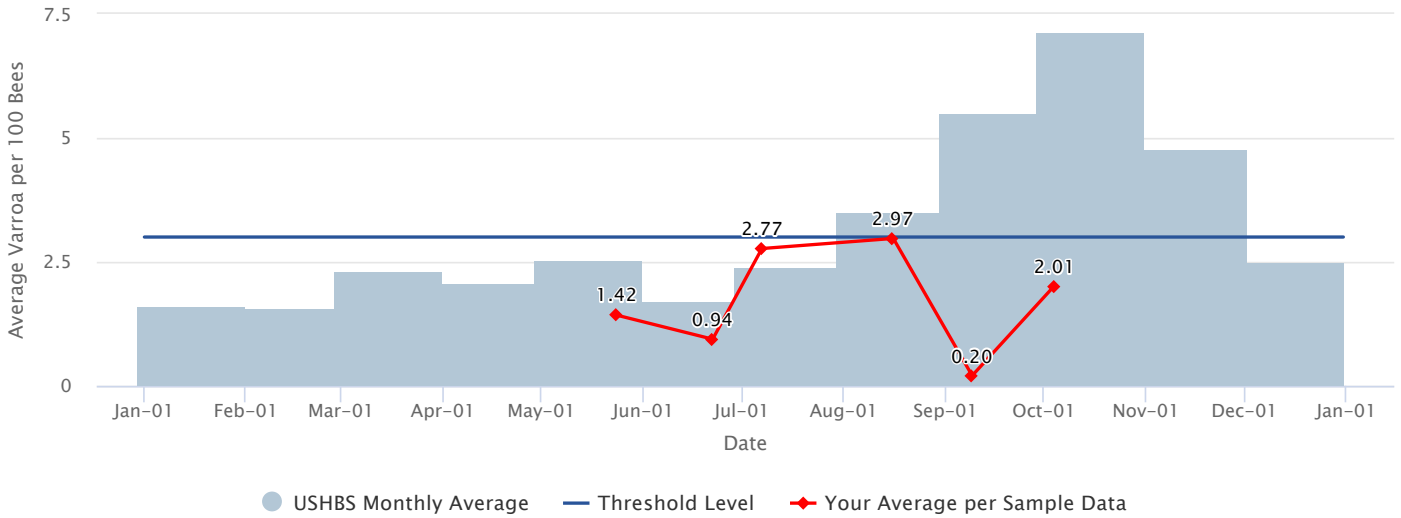
Varroa (mites per 100 bees)						
Hive	May	June	July	August	September	October
S20-SAZP-1	3.2	1.8	3.4			
S20-SAZP-2	0.6	0.6	0.0	1.4	0.0	0.7
S20-SAZP-3	1.9	0.0	0.0	0.3	0.6	1.5
S20-SAZP-4	0.0	1.4	7.6	0.3	0.2	2.1
S20-SAZP-5				9.9	0.0	3.7
Your Monthly Average	1.42 ±2.28 (4)	0.94 ±1.27 (4)	2.77 ±5.76 (4)	2.97 ±7.45 (4)	0.2 ±0.45 (4)	2.01 ±2.01 (4)
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	1.43 ±0.28 (341)	1.72 ±0.3 (363)	2.4 ±0.49 (327)	2.53 ±0.46 (310)	3.22 ±0.64 (275)	1.86 ±0.87 (32)
Sentinel Last Year 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)

- 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
S20-SAZP-1	1.6	7.4	1.7			
S20-SAZP-2	0.3	4.0	0.8	0.0	0.0	0.0
S20-SAZP-3	1.5	0.0	0.0	0.0	0.0	0.0
S20-SAZP-4	0.9	0.8	0.0	0.0	0.0	0.0
S20-SAZP-5				0.0	0.0	0.3
Your Monthly Average	1.09 ±1.01 (4)	3.03 ±5.38 (4)	0.62 ±1.29 (4)	0.0 ±0.0 (4)	0.0 ±0.0 (4)	0.06 ±0.2 (4)
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	1.57 ±0.32 (340)	0.89 ±0.25 (363)	0.38 ±0.14 (327)	0.24 ±0.08 (310)	0.24 ±0.06 (275)	0.38 ±0.31 (32)
Sentinel Last Year 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)

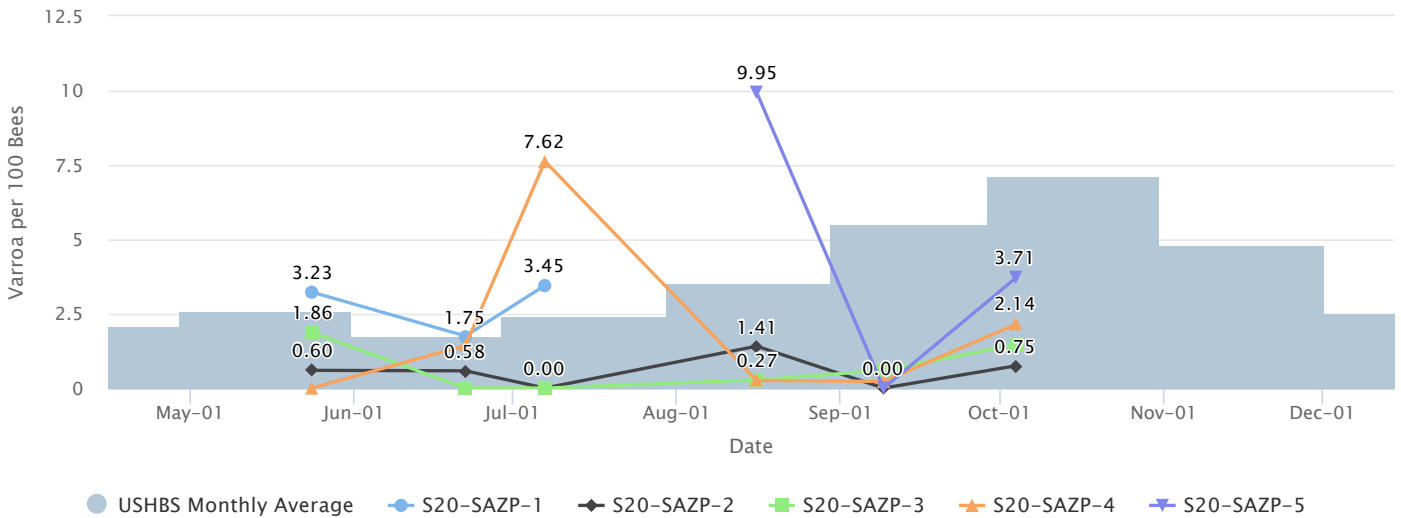
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- We consider => one million spores per bee (highlighted in red) to be the acceptable threshold in a hive. Your nosema levels will fluctuate with temperature and colonies' sun exposure every month.

Average Varroa per 100 Bees in 2020 for Your Samples Compared to the National Average



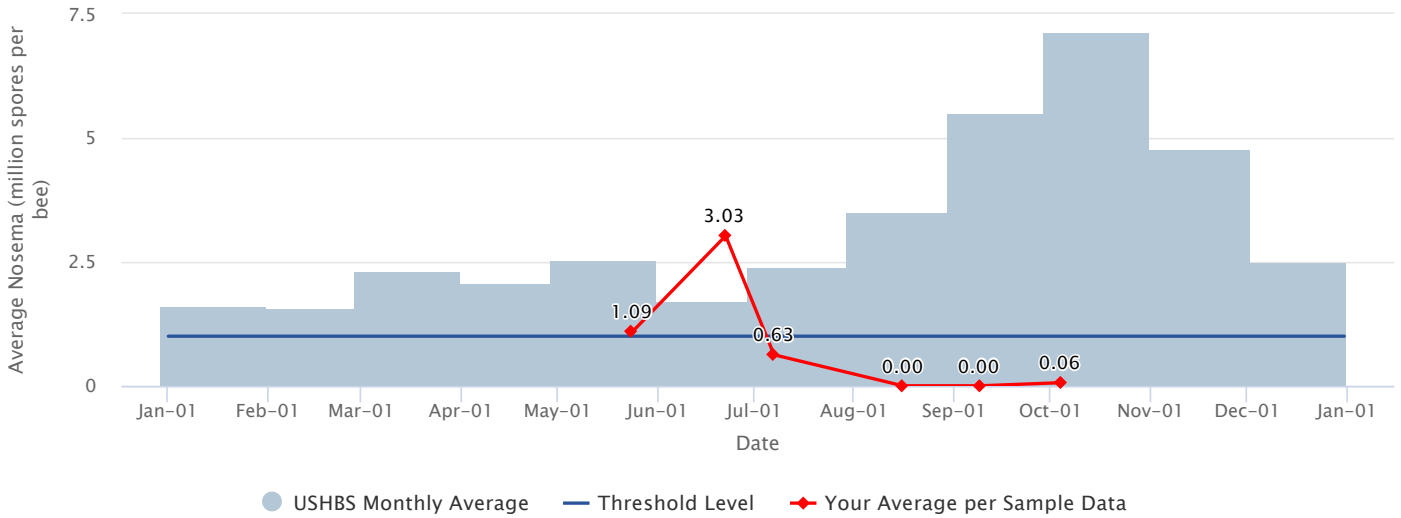
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Varroa per 100 Bees per Colony in 2020 for Your Samples Compared to the National Average



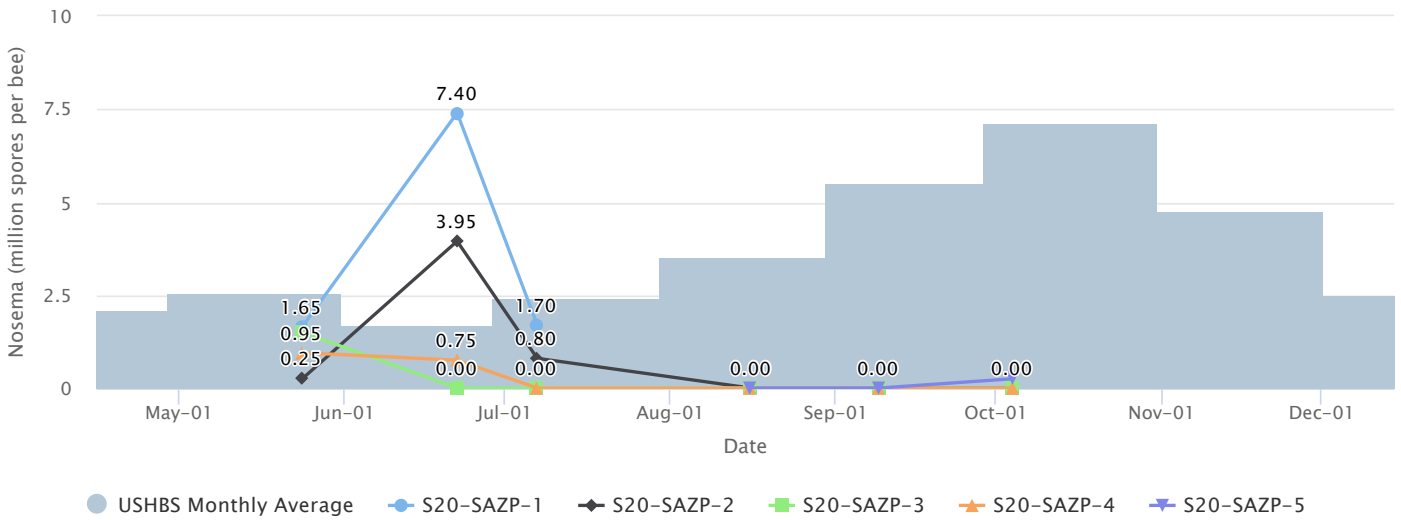
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Average Nosema in Million Spores per Bee in 2020 for Your Samples Compared to the National Average



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Nosema in Million Spores per Bee per Colony in 2020 for Your Samples Compared to the National Average



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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
S20-SAZP-1	May 24, 2020	VQ	1.5	4.5	Backfilling, multiple VQs (3). Opened and destroyed swarm cells, high % drones.		124	3.2	1.65
S20-SAZP-2	May 24, 2020	VQ	2.5	7.0	Some backfilling, VQ observed, swarm cells (opened & sealed)		168	0.6	0.25
S20-SAZP-3	May 24, 2020	VQ	2.0	7.5	Some backfilling, VQ observed, three sealed swarm cells.		161	1.9	1.50
S20-SAZP-4	May 24, 2020	QR	4.5	8.0			161	0.0	0.95
S20-SAZP-1	June 22, 2020	QL	0.0	5.0	No brood, back filling, no eggs. High percentage of population are drones -> 50%+		114	1.8	7.40
S20-SAZP-2	June 22, 2020	QS	3.5	8.0	Unmarked queen		171	0.6	3.95
S20-SAZP-3	June 22, 2020	QS	0.0	6.0	No capped brood, eggs and all stages of larvae seen. Unmarked queen (hive requeened itself)		140	0.0	0.00
S20-SAZP-4	June 22, 2020	QS	4.0	10.0	Unmarked queen. Hive requeened		140	1.4	0.75
S20-SAZP-1	July 7, 2020	QNS	1.0	6.0	Lots of drone brood		145	3.4	1.70
S20-SAZP-2	July 7, 2020	QS	3.0	13.0	Eggs		254	0.0	0.80
S20-SAZP-3	July 7, 2020	QR	4.0	11.0	Lots of eggs		222	0.0	0.00
S20-SAZP-4	July 7, 2020	QNS	3.0	13.0	No evidence of queen. Capped brood		222	7.6	0.00
S20-SAZP-2	Aug. 16, 2020	QR	3.0	9.0	Looks ok. Plenty of honey.	treatment	355	1.4	0.00
S20-SAZP-3	Aug. 16, 2020	QS	4.0	10.0	Bottom fairly empty of honey, top heavy. Bottom has majority of capped brood. Removed super.	treatment	363	0.3	0.00
S20-SAZP-4	Aug. 16, 2020	QR	3.0	11.0	Food stores ok. Bottom box mostly empty.	treatment	389	0.3	0.00
S20-SAZP-5	Aug. 16, 2020	QR	3.0	14.0	Lots of honey. Defensive. Switched out 2 broken frames.	treatment	281	9.9	0.00
S20-SAZP-2	Sept. 9, 2020	QS	2.0	7.0	More open brood than capped brood. Pollen present. Honey and nectar. 7 frames brood in bottom box. Hive beetles seen.	treatment	374	0.0	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
S20-SAZP-3	Sept. 9, 2020	QR	2.0	11.0	Eggs seen. Capped brood low. Looks like queen just started laying again. Honey, nectar, pollen present.	treatment	335	0.6	0.00
S20-SAZP-4	Sept. 9, 2020	QR	3.0	12.0	Bottom box empty. Top brood, CB and eggs. Bees defensive. Will reduce to one deep. Hive beetles seen.	treatment	447	0.2	0.00
S20-SAZP-5	Sept. 9, 2020	QS	3.0	9.0	Looks much better. Room in lower box for brood. Top is mostly honey. 7 frames of brood below, pollen present.	treatment	254	0.0	0.00
S20-SAZP-2	Oct. 4, 2020	QS	2.0	7.0	Added 3 Apivar OB, not much capped brood.	management	267	0.7	0.00
S20-SAZP-3	Oct. 4, 2020	QS	3.0	10.0	Apivar added (3 strips), pollen patty looks good (1/4), nectar coming in. Well fed.	management	273	1.5	0.00
S20-SAZP-4	Oct. 4, 2020	QS	3.0	7.0	3 Apivar added, 1/4 pollen patty, 3 frames brood. Honeybound. Added 2nd deep drawn comb and will feed heavily.	management	280	2.1	0.00
S20-SAZP-5	Oct. 4, 2020	QS	2.0	9.0	Open brood, not much capped. Small hive beetle larvae removed from pollen patty. 3 Apivar and small amount of pollen.	management	215	3.7	0.25

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