APHIS State Report for year: 2020 and state: Idaho

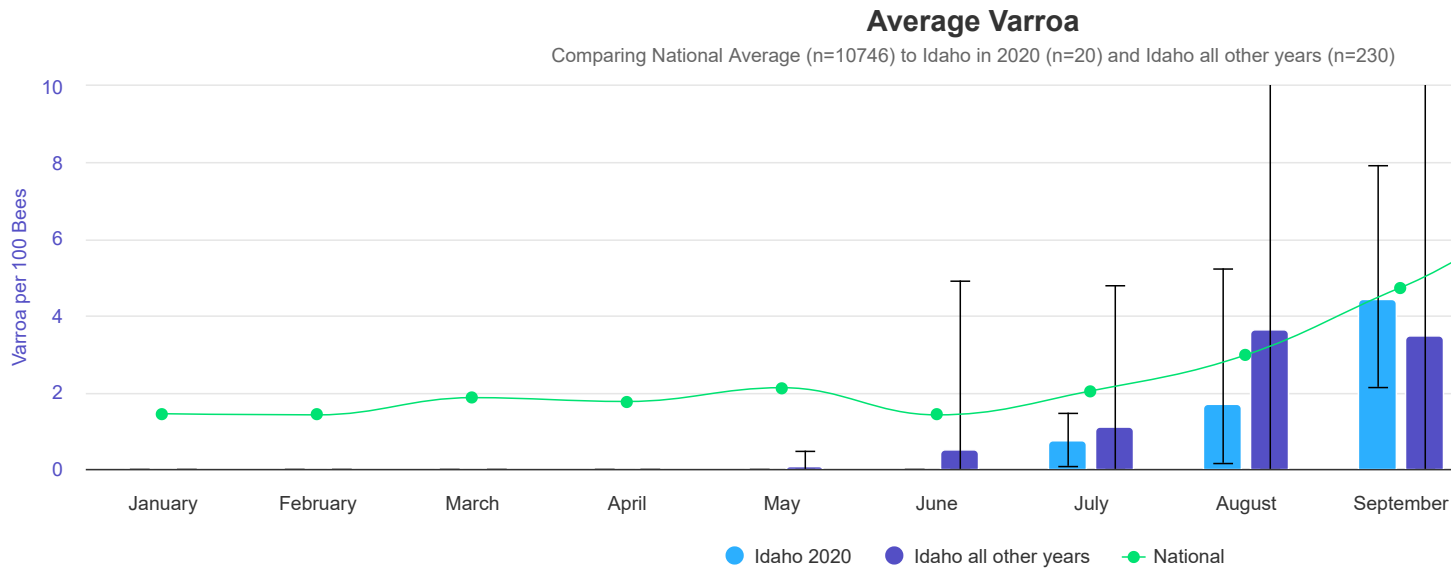
Essential tips for reading data:

You can hover over any data in the graphs to view specific data and sample size

All graphs on this page can be downloaded by clicking the “hamburger menu” ( ) at the upper right of each graph. Once downloaded, you can paste the image into presentations or reports.

Please note that if you choose 2016 or earlier, the pesticide results shown will be for Bee Bread only. If you choose 2018 or later, the pesticide results will show only Wax. In 2017, we switched from Bee Bread to Wax for residue analysis. In 2017 only, you will get both Bee Bread and Wax results.

You may download the data used for this data explorer by clicking here and filling out the request form. You will be asked to create an account and login first.

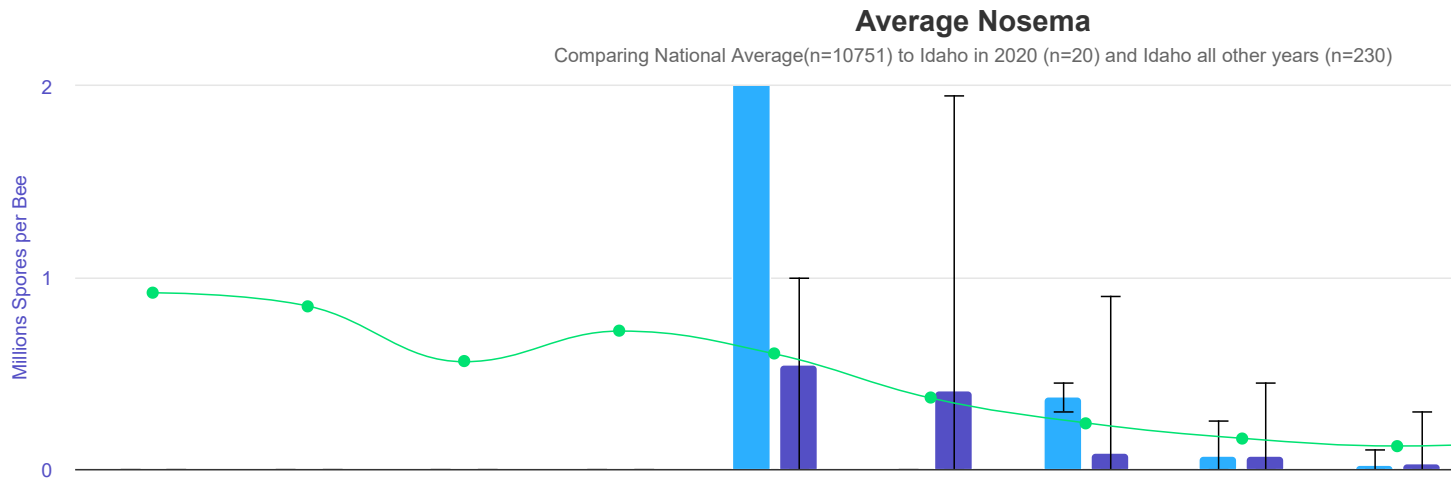


Varroa: (Remember, hover over any data on the graphs to view data details)

"Average Varroa" chart shows the national monthly average varroa level for all samples and all years in the APHIS survey, charted as a green line. The error bars are based on the 95% confidence interval which represents the range that 95% of all samples are within.

The blue columns represent the average varroa level in samples collected in the state Idaho during the year 2020. The error bars for the state monthly average represent the minimum and maximum varroa levels found.

Months without columns have no samples taken during those months.

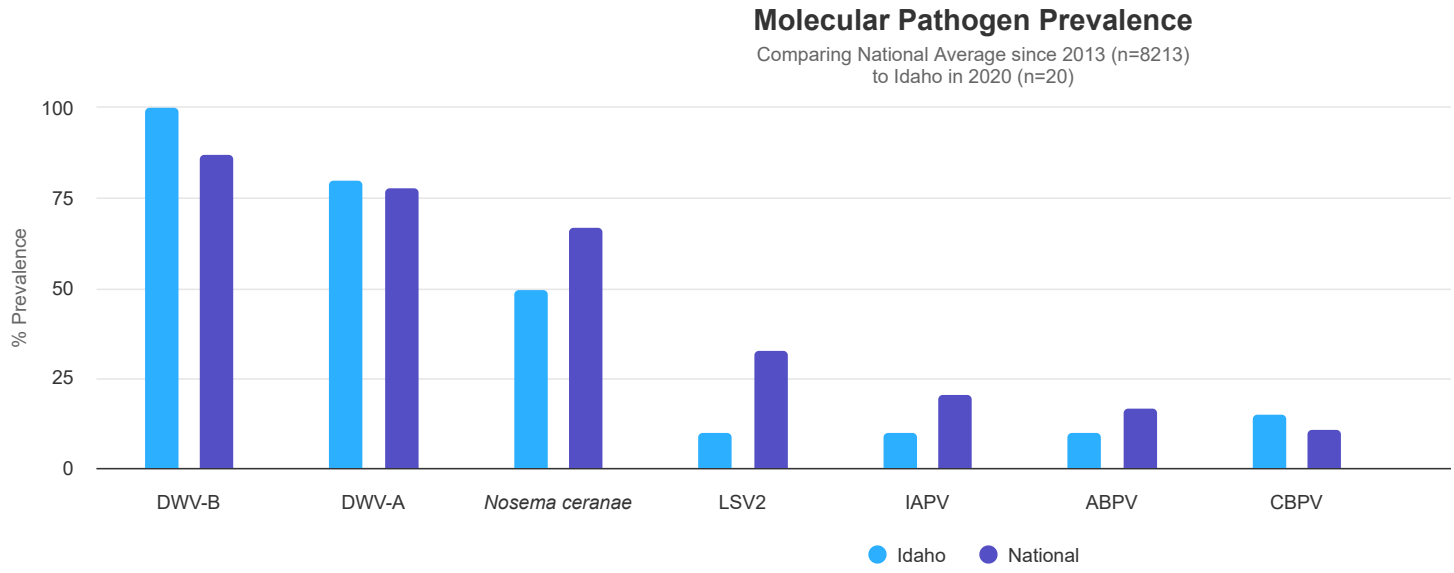


Nosema: (Remember, hover over any data on the graphs to view data details)

The "Average Nosema" chart shows the national monthly average nosema level for all samples and all years in the APHIS survey, charted as a green line. The error bars are based on the 95% confidence interval which represents the range that 95% of all samples are within.

The blue columns represent the average nosema level in samples collected in the state Pennsylvania during the year 2018. The error bars for the state monthly average represent the minimum and maximum nosema level found.

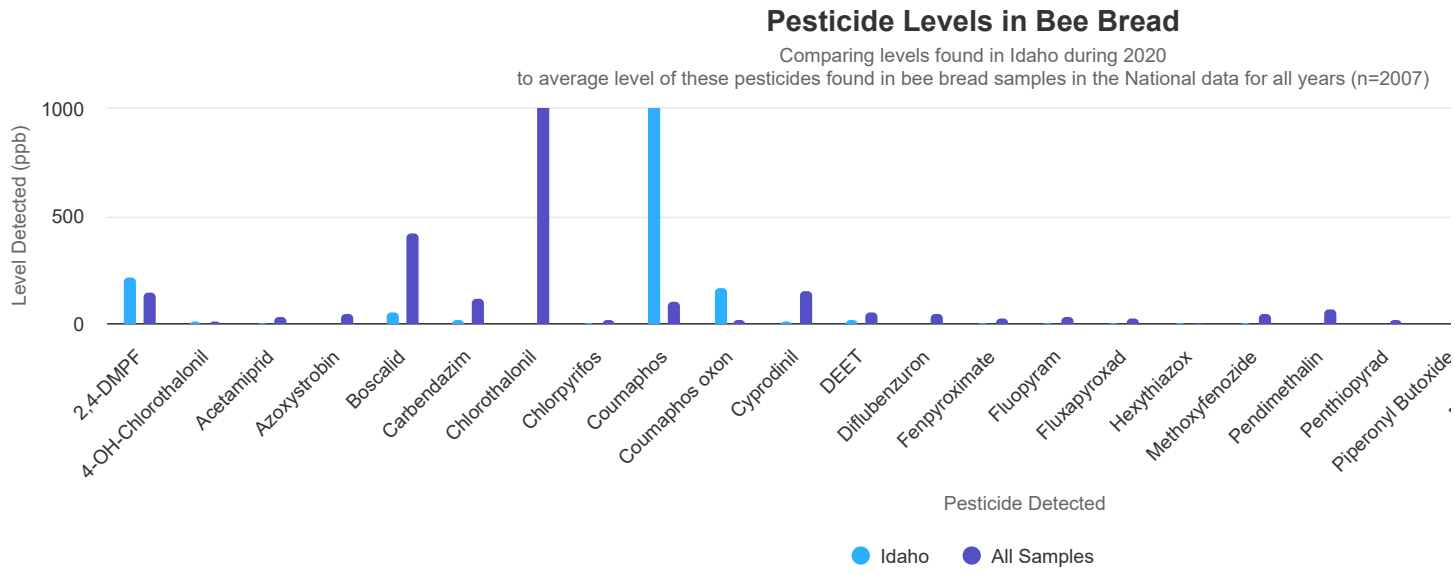
Months without columns have no samples taken during those months.



Molecular: (Remember, hover over any data on the graphs to view data details)

The molecular pathogen prevalence chart shows the percentage of samples in Pennsylvania in 2018 that were positive for each of the listed pathogens (blue bars).

The National prevalence displays the percentage of all national samples in all years since 2013 that were positive for each of the listed pathogens (black bars)



Pesticides: (Remember, hover over any data on the graphs to view data details)

The pesticide level chart displays the specific pesticide detected and the level it was detected in the state in this year. Average national levels of this pesticide are also shown for comparison.

Table1: Sample Details. Threshold of 3 mites per 100 bees and 1 millions spores per bee are highlighted red. If pesticide results are available, the sample type is given (examples: Bee Bread or Wax), then the pesticides found and level detected.

Month	County	Varroa per 100 Bees	Million Spores per Bee	ABPV	CBPV	DWV-A	DWV-B	IAPV	KBV	LSV2	SBPV	MKV	Pesticides(ppb)
May	Cassia	0.0	2.2	-	-	-	below 30th	-	-	50th	-	-	Bee Bread, 2,4-DMPF (479.0), Azoxystrobin (3.0), Boscalid (115.0), Carbendazim (39.0), Cyprodinil (13.0), DEET (Trace), Fluopyram (Trace), Fluxapyroxad (7.0), Pendimethalin (Trace), Pyraclostrobin (69.0), Pyriproxyfen (17.0), Trifloxystrobin (Trace)

Month	County	Varroa per 100 Bees	Million Spores per Bee	ABPV	CBPV	DWV-A	DWV-B	IAPV	KBV	LSV2	SBPV	MKV	Pesticides(ppb)
July	Lincoln	1.45	0.3	-	50th	below 30th	60th	below 30th	-	-	-	-	
July	Lincoln	0.07	0.45	-	-	below 30th	50th	-	-	-	-	-	
August	Ada	2.79	0.15	-	-	below 30th	below 30th	-	-	-	-	-	Bee Bread, Acetamiprid (10.0), Chlorothalonil (Trace), Coumaphos (44.0), DEET (38.0), Fenpyroximate (7.0), Thymol (3210.0)
August	Bingham	1.3	0.05	-	-	50th	30th	-	-	-	-	-	
August	Bonneville	2.84	0.0	-	-	40th	40th	-	-	-	-	-	Bee Bread, 2,4-DMPF (124.0), Azoxystrobin (3.0), Coumaphos (5290.0), Coumaphos oxon (337.0), DEET (15.0), Diflubenzuron (Trace), Fluxapyroxad (4.0), Methoxyfenozide (3.0), Penthiopyrad (Trace), Pyraclostrobin (6.0)

Month	County	Varroa per 100 Bees	Million Spores per Bee	ABPV	CBPV	DWV-A	DWV-B	IAPV	KBV	LSV2	SBPV	MKV	Pesticides(ppb)
August	Cassia	0.15	0.05	-	-	-	below 30th	-	-	-	-	-	Bee Bread, 2,4-DMPF (60.0), Azoxystrobin (Trace), Boscalid (Trace), Chlorothalonil (Trace), Chlorpyrifos (6.0), DEET (36.0), Fluopyram (8.0), Hexythiazox (10.0), Propargite (4.0), Pyrimethanil (18.0), Trifluralin (Trace)
August	Idaho	5.2	0.05	-	-	below 30th	50th	-	-	-	-	-	
August	Kootenai	0.48	0.05	-	-	-	below 30th	-	-	-	-	-	
August	Kootenai	0.25	0.0	-	-	below 30th	30th	-	-	-	-	-	
August	Nez Perce	1.32	0.25	-	-	-	below 30th	-	-	-	-	-	
August	Owyhee	1.12	0.0	-	-	below 30th	below 30th	-	-	-	-	-	
September	Bannock	6.56	0.0	-	-	70th	80th	60th	-	-	-	-	
September	Bonneville	2.86	0.05	-	-	30th	50th	-	-	-	-	-	

Month	County	Varroa per 100 Bees	Million Spores per Bee	ABPV	CBPV	DWV-A	DWV-B	IAPV	KBV	LSV2	SBPV	MKV	Pesticides(ppb)
September	Canyon	7.9	0.0	40th	-	70th	80th	-	-	-	-	-	Bee Bread, 2,4-DMPF (72.0), Azoxystrobin (4.0), Chlorpyrifos (6.0), Coumaphos (15.0), DEET (24.0), Piperonyl Butoxide (Trace), Propargite (104.0), Trifluralin (Trace)
September	Canyon	2.12	0.0	-	-	40th	70th	-	-	-	-	-	
September	Gooding	4.67	0.0	-	-	below 30th	30th	-	-	30th	-	-	Bee Bread, 2,4-DMPF (373.0), 4-OH-Chlorothalonil (14.0), Azoxystrobin (5.0), Carbendazim (Trace), Chlorpyrifos (Trace), Coumaphos (151.0), Coumaphos oxon (3.0), Cyprodinil (11.0), DEET (18.0), Fluopyram (6.0), Fluxapyroxad (3.0), Methoxyfenozide (7.0), Pyraclostrobin (6.0), Pyrimethanil (Trace), Thymol (1980.0), Trifloxystrobin (Trace)
September	Minidoka	2.3	0.1	-	-	30th	60th	-	-	-	-	-	

Month	County	Varroa per 100 Bees	Million Spores per Bee	ABPV	CBPV	DWV-A	DWV-B	IAPV	KBV	LSV2	SBPV	MKV	Pesticides(ppb)
September	Twin Falls	4.85	0.0	-	below 30th	90th	60th	-	-	-	-	-	
October	Canyon	4.86	0.0	below 30th	below 30th	50th	70th	-	-	-	-	-	

Table1 legend

- Molecular targets with a negative result are represented with a '-' in their cell.
- Molecular targets with a positive result are ranked into percentiles. The percentile shows the percent of samples found at the same level, or below, for that particular target. You can think of it as a ranking from 0 to 100, with lower rank is "better" (less virus). For example, a pathogen found to be postive and ranked at 'below 30th', would be a relatively low level at the lower third compared to other samples.

Information regarding sample collection

Four distinct collection methods were used to sample each apiary according to the APHIS Survey protocol. They include:

Live adult bees (¼ cup of bees per brood frame from each of the 8 sampled colonies). The total of ~2 cups of live bees were deposited in a ventilated shipping box containing a water source and fondant. Sample was immediately shipped to the University of Maryland (UMD) where it was frozen at -80°C until molecular testing (qPCR) could be performed.

A second live bee sample (1/4 cup per colony, 2 cups total from 8 colonies) was collected in alcohol and sent to the UMD Honey Bee Lab for varroa mite and nosema spore analyses.

A third collection was taken from "bump" samples off brood comb and also shipped to UMD for microscopic analyses to test for presence/absence of the Tropiliaelaps mite.

When pesticide sampling was done, samples were collected from stored pollen in brood comb or wax.

For national viral data, we show data since 2013 only due to improvements made to the molecular techniques used to determine if the pathogen is present. For data collected previous to 2013, we still show the prevalence of these samples per state and those are still compared to improved (>2013) molecular data.