



National Agricultural Genotyping Center

1616 Albrecht Blvd N Fargo, ND 58102
TEL: (701) 239-1451
www.genotypingcenter.com



To: Chocolatiers of the Arid SW
2828 Cacao Street
Phoenix, AZ 86968

Attn: Amaury Guichon

REPORT ON THE EXAMINATION OF PHYSICAL SAMPLES

Testing Request: Honey Bee Quantitative

Laboratory Case #: 23-0620

Report Date: August 09, 2023

Description of Submitted Samples:

<u>Item</u>	<u>Description</u>
1	One (1) 50ml conical tube labeled Item 1 containing bees
2	One (1) 50ml conical tube labeled Item 2 containing bees
3	One (1) 50ml conical tube labeled Item 3 containing bees
4	One (1) 50ml conical tube labeled Item 4 containing bees
5	One (1) 50ml conical tube labeled Item 5 containing bees
6	One (1) 50ml conical tube labeled Item 6 containing bees
7	One (1) 50ml conical tube labeled Item 7 containing bees
8	One (1) container labeled 23-01-6-1.1 containing honey
9	One (1) container labeled 23-01-6-2.1 containing honey
10	One (1) container labeled 23-01-6-3.1 containing honey

Results/Interpretations/Opinions:

The Honey Bee Quantitative Pathogen Panel was performed on a subsample of Items 1 through 10. The results are reported in **total target copies/sample and can be viewed on the following page(s) of the report.

Disposition of Samples:

Items 1 through 10 will be retained and stored by the laboratory for thirty days before final disposition according to NAGC policy.

Report Disposition:

Chocolatiers of the Arid SW
NAGC Proficiency Testing Committee



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Item	Aapis	ABPV	AFB	Awoodi	BQCV	CBPV	Cme	DWV-A	DWV-B	DWV-C	EFB	IABPV	KBV	Lpa	LSV1	LSV2	N. apis	N. ceranae	SBPV	SBV	Trop
1	37 Thousand	-	-	-	16 Thousand	-	-	-	15 Thousand	-	-	-	-	-	179 Thousand	5 Million	-	50 Million	-	93 Million	-
2	80 Thousand	-	-	-	234 Thousand	-	-	26 Million	20 Million	-	-	27 Thousand	-	-	-	-	-	43 Million	-	2 Million	-
3	-	-	-	-	-	-	-	2 Million	1 Million	-	-	-	-	-	-	24 Million	-	161 Million	-	3 Million	-
4	-	-	-	-	16 Thousand	-	-	540	271 Thousand	-	-	-	-	-	-	-	-	9 Million	-	1 Million	-
5	-	-	-	-	670 Thousand	-	-	8 Million	2 Million	-	-	-	-	-	-	37 Million	-	614 Million	-	232 Million	-
6	793	-	-	-	10 Thousand	-	-	-	308 Thousand	-	-	-	-	-	-	8 Million	-	663 Thousand	-	4 Million	-
7	-	-	-	-	834 Thousand	-	-	5 Million	12 Million	-	-	-	-	-	-	10 Million	-	639 Million	-	22 Million	-
8	-	-	-	-	3 Thousand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34 Thousand	-
9	-	-	-	-	4 Thousand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	334 Thousand	-
10	-	-	-	-	6 Thousand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	187 Thousand	-

ABL2 - ABPV: Acute Bee Paralysis Virus

AES - AFB: American Foulbrood

CAA - CBPV: Chronic Bee Paralysis Virus

DWV - DWV-A: Deformed Wing Virus A

ISL1 - IABPV: Israeli Acute Bee Paralysis Virus

KNN - KBV: Kashmir Bee Virus

TLC - Trop: *Tropilaelaps* spp.

BQCV: Black Queen Cell Virus

EFB: European Foulbrood

Aapis: *Ascosphaera apis*

***DWV-B**: Deformed Wing Virus B

SBPV: Slow Bee Paralysis Virus

N. apis: *Nosema apis*

Lpa: *Lotmaria passim*

LSV2: Lake Sinai Virus 2

SBV: Sacbrood Virus

Awoodi: *Acarapis woodi*

DWV-C: Deformed Wing Virus C

LSV1: Lake Sinai Virus 1

N. ceranae: *Nosema ceranae*

Cme: *Crithidia mellificae*

*formerly known as Varroa Destructor Virus 1 (VDV1)



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**The reported pathogen quantities for a sample are an estimate of the true quantity. It should be noted that qPCR will amplify both actively growing organisms, spores, and organisms that have died or are dormant, but their genetic material is still present in the sample and therefore pathogen quantities are often slightly higher than expected for a true infection.

NOTE: For more information regarding estimated pathogen quantities and to compare your results to others, please visit <https://genotypingcenter.com/services/bees/quantities>

- denotes a “not detected” result for the pathogen tested.

QNS stands for Quantity Not Sufficient. This notation indicates the pathogen was detected, but at levels too low to accurately quantitate.

NT specifies the pathogen was not tested, per request.



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I hereby certify that the above report is true and accurate and represents my opinions and interpretations.



Lucas Andes
Research Analyst

This report shall not be duplicated or distributed, unless in full.