



114 Pleasant St
Southbridge, MA 01550
(303) 817-7758

Questions? info@vernebio.com
<https://www.vernebio.com>

WE-Test Pathogen Testing

Order Number: Brothers Grimm Seeds (C44) - Johnstown CO (L1) - Test Order #2

Sample Collection Date: Unknown

Sample Received Date: 10.07.2022

Testing Date: 10.11.2022

Result Summary

20 : Number of Samples Submitted

ALL PASSED: Quality Control

0 : Samples Detected Pathogen

Submitted Samples Summary

Sample ID	Test ID	Sample Info
8	C44L1P8	Alani X Glvey Batch 1
9	C44L1P9	DT X Glvey Batch 1
10	C44L1P10	Jack Henen X Glvey Batch 1
11	C44L1P11	Rom X Glvey Batch 1
12	C44L1P12	ICE P X Glvey Batch 1
13	C44L1P13	Grimm Mints XX Batch 1
14	C44L1P14	Apple Fritta XX Batch 1
15	C44L1P15	Apollo XX Batch 1
16	C44L1P16	Rosetta Stone XX Batch 1
17	C44L1P17	Q of Soul Batch 1
18	C44L1P18	C99 XX Batch 1
19	C44L1P19	Killa Queen XX Batch 1
20	C44L1P20	Cinderella Pinapple XX Batch 1
21	C44L1P21	Space Queen XX Batch 1
22	C44L1P22	DT X C99 XX Batch 1
23	C44L1P23	Mota Hari XX Batch 1
24	C44L1P24	Prince Haze XX Batch 1
25	C44L1P25	Grimm Glue XX Batch 1
26	C44L1P26	Durban Nights XX Batch 1
27	C44L1P27	Grimm Truffles XX Batch 1

Nathan T. Johnson, Ph.D.
CEO & Co-Founder

Sebastian Mana-Capelli, Ph.D.
CSO & Co-Founder
COA Review

Seth Joubert, B.S.
Lab Technician



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Raw CT - qPCR Results

Test ID	Viral Panel*			Fungal Panel				Internal Controls	
	Hplvd	TMV/ AMV/ CCV	LCV/ ToRsV	Fusarium	Botrytis	Powdery Mildew	Pythium	DNA	RNA
C44L1P8 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P8 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P9 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P9 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P10 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P10 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P11 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P11 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P12 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P12 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P13 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P13 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P14 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P14 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P15 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P15 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P16 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P16 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P17 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P17 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P18 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P18 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P19 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P19 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P20 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass

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C44L1P20 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P21 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P21 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P22 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P22 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P23 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P23 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P24 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P24 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P25 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P25 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P26 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P26 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P27 (supernatant)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
C44L1P27 (seed pellet)	ND	ND	ND	ND	ND	ND	ND	Pass	Pass
Spiked in pathogen	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Negative Control	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

*ND = Not Detected (Teal), NT = Not Tested (Blue), Detected (Red)

** Values are measured in Cycle Threshold (CT)

*** Verified through melt curve analysis and comparison to clean tissue culture sample

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Results Meaning

Nothing detected!

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Possible Pathogen Testing

Virus / Viroid Panel

Alfalfa Mosaic Virus (AMV)
Cannabis Cryptic Virus (CanCV)
Hop Latent Viroid (HpLVd)
Lettuce Chlorosis Virus (LCV)
Tobacco Mosaic Virus (TMV)
Tomato Ringspot Virus (ToRSV)

Fungal Panel

Golovinomyces spadiceus (Powdery Mildew)
Golovinomyces ambrosiae (Powdery Mildew)
Golovinomyces cichoracearum (Powdery Mildew)
Botrytis cinerea and Botryotinia fuckeliana (telomorph) (Botrytis)
Fusarium oxysporum f. sp. cannabis (Fusarium)
Fusarium oxysporum f. sp. vasinfectum (Fusarium)
Pythium Myriotium (Pythium)
Pythium ultimum (Pythium)
Pythium aphanidermatum (Pythium)