FARMER FREEMAN

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Pathogen Diagnostic Report

BCTv

CUSTOMER NAME
Casey Flores

COMPANY / ORGANIZATION
Farmer Freeman

EMAIL
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REPORT DATE
October 15, 2026

RUN DATE
October 15, 2026

DATE OF LAB RECEIPT
October 14, 2026

Diagnostic Results

Sample ID	Strain	Nickname	Sample Type	BCTv	IC
VT00001	Blue Dream	BD-A01	Root + Leaf	NOT DETECTED	PASS 26.00
VT00002	Gelato 41	G41-B02	Root + Leaf	DETECTED 21.70	N/A 24.50
VT00003	Wedding Cake	WC-C03	Root + Leaf	NOT DETECTED	PASS 25.30
VT00004	Runtz	RZ-D04	Root + Leaf	NOT DETECTED	PASS 24.80
VT00005	Girl Scout Cookies	GSC-E05	Root + Leaf	DETECTED 28.40	N/A 25.10

- DETECTED — Pathogen present; IC not required for detection
- NOT DETECTED — No pathogen signal; IC valid
- UNDER ANALYSIS — IC failed; being retested, ready in 1–2 business days
- Lower Cq values typically correlate with a greater pathogen load in the sample.

Interpretation Summary

Pathogen Detected

One or more samples tested positive for: **BCTv**. Immediate action is recommended. Isolate affected plants and equipment. Do not take cuttings from positive plants. Sanitize tools between plants. Contact a cultivation advisor to develop a remediation plan.

About the Pathogens Tested

Beet Curly Top Virus (BCTv)

Channel: FAM **Type:** Virus **Threshold:** Cq < 35

Beet Curly Top Virus (BCTv) is a curtovirus transmitted by the beet leafhopper (Circulifer tenellus). Infected cannabis plants display severe stunting, upward leaf curling, and darkening of veins. There is no cure once a plant is infected; management relies on controlling leafhopper populations.

Methodology

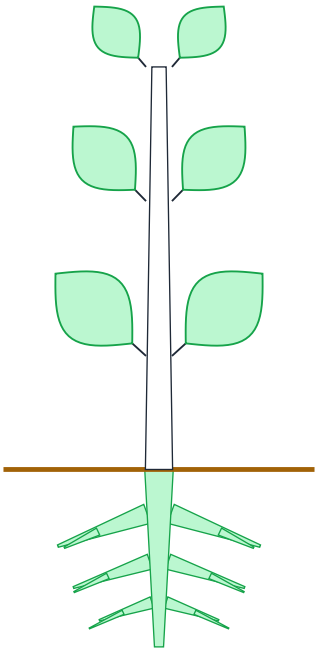
This report utilizes quantitative reverse transcription PCR (RT-qPCR) performed on an Agilent AriaMX Real-Time PCR instrument. Nucleic acids are extracted from plant tissue using a validated extraction protocol. Each reaction includes an internal extraction and amplification control (IC/HEX channel) to confirm assay validity. A Cq threshold of 35 cycles is applied for most targets (40 cycles for Russet Mite): samples with Cq at or below threshold are reported as Detected. Samples with Cq between 35 and 40 cycles are also reported as Detected when the IC Cq is below 35, confirming assay validity. A positive target result is reported as Detected regardless of IC status. Wells with no target signal and a failed IC are reported as Under Analysis and will be retested by the laboratory.

Questions? Contact support@farmerfreeman.com or call 202-697-7640. Submit new samples at www.farmerfreeman.com.

VT00001

Blue Dream

BD-A01



No pathogen detected
Pathogen detected
Not tested

PANEL
BCTv

SAMPLE TYPE
Root + Leaf

DATE OF RECEIPT
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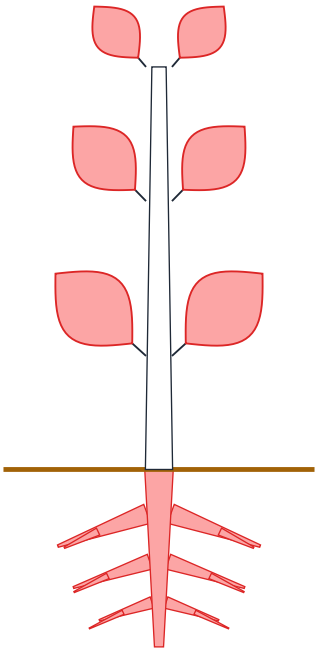
RUN DATE
October 15, 2026

Results

BCTv	**NOT DETECTED**	No Cq
Internal Control (IC)	**PASS**	Cq 26.00

VT00002

Gelato 41
G41-B02



No pathogen detected
Pathogen detected
Not tested

PANEL
BCTv

SAMPLE TYPE
Root + Leaf

DATE OF RECEIPT
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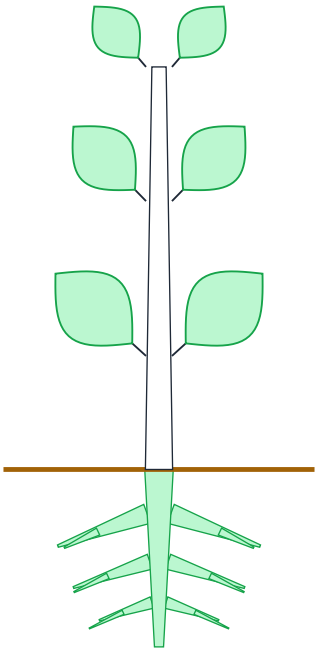
Results

BCTv	**DETECTED**	Cq 21.70
Internal Control (IC)	**PASS**	Cq 24.50

VT00003

Wedding Cake

WC-C03



No pathogen detected
Pathogen detected
Not tested

PANEL
BCTv

SAMPLE TYPE
Root + Leaf

DATE OF RECEIPT
October 14, 2026

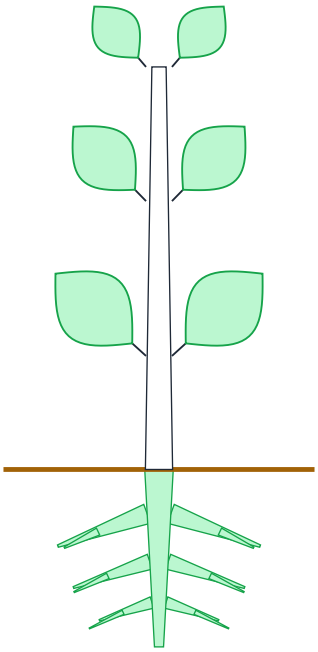
RUN DATE
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Results

BCTv	**NOT DETECTED**	No Cq
Internal Control (IC)	**PASS**	Cq 25.30

VT00004

Runtz
RZ-D04



No pathogen detected
Pathogen detected
Not tested

PANEL
BCTv

SAMPLE TYPE
Root + Leaf

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RUN DATE
October 15, 2026

Results

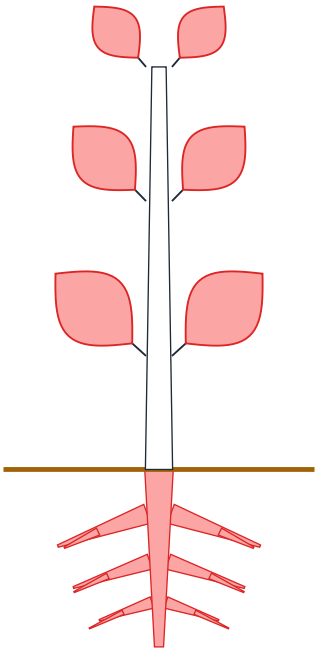
BCTv	**NOT DETECTED**	No Cq
Internal Control (IC)	**PASS**	Cq 24.80

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VT00005

Girl Scout Cookies

GSC-E05



No pathogen detected
Pathogen detected
Not tested

PANEL
BCTv

SAMPLE TYPE
Root + Leaf

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October 15, 2026

Results

BCTv	**DETECTED**	Cq 28.40
Internal Control (IC)	**PASS**	Cq 25.10