FARMER FREEMAN

1415 Elliot Pl NW, Building B, Washington, DC 20007
202-697-7640 support@farmerfreeman.com
www.farmerfreeman.com

Pathogen Diagnostic Report

Powdery Mildew

CUSTOMER NAME
Casey Flores

COMPANY / ORGANIZATION
Farmer Freeman

EMAIL
support@farmerfreeman.com

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	Powdery Mildew	IC
VT00001	Zkittlez	ZK-A01	3x Leaf	DETECTED 22.90	N/A 25.20
VT00002	Gorilla Glue #4	GG4-B02	3x Leaf	NOT DETECTED	PASS 24.70
VT00003	Purple Punch	PP-C03	3x Leaf	DETECTED 25.40	N/A 24.10
VT00004	White Widow	WW-D04	3x Leaf	NOT DETECTED	PASS 25.90
VT00005	Runtz	RZ-E05	3x Leaf	NOT DETECTED	PASS 24.50

- 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: **PM**. 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

Powdery Mildew (PM)

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

Powdery Mildew is caused by Golovinomyces cichoracearum and related species. It appears as white, powdery patches on leaf surfaces and reduces photosynthetic capacity, trichome development, and cannabinoid yields. Unlike most fungi, powdery mildew thrives in dry conditions with moderate temperatures.

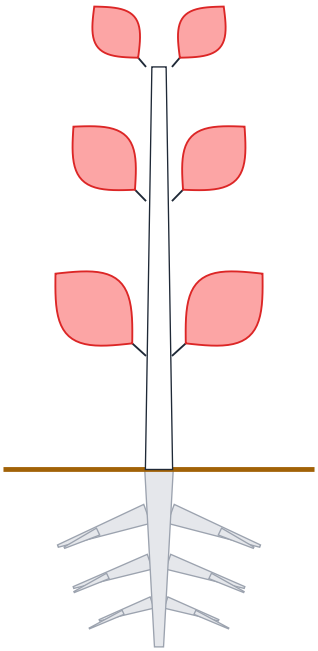
Methodology

This report utilizes quantitative PCR (qPCR) performed on an Agilent AriaMX Real-Time PCR instrument. DNA is 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

Zkittlez
ZK-A01



No pathogen detected
Pathogen detected
Not tested

PANEL
Powdery Mildew

SAMPLE TYPE
3x Leaf

DATE OF RECEIPT
October 14, 2026

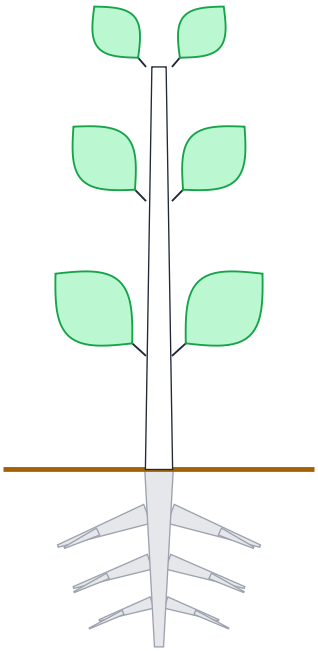
Results

Powdery Mildew	**DETECTED**	Cq 22.90
Internal Control (IC)	**PASS**	Cq 25.20

VT00002

Gorilla Glue #4

GG4-B02



No pathogen detected
Pathogen detected
Not tested

PANEL
Powdery Mildew

SAMPLE TYPE
3x Leaf

DATE OF RECEIPT
October 14, 2026

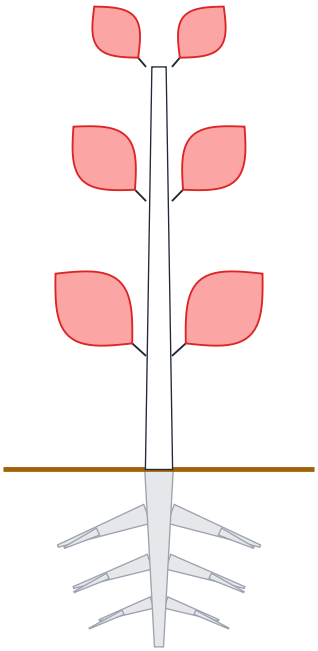
Results

Powdery Mildew	**NOT DETECTED**	No Cq
Internal Control (IC)	**PASS**	Cq 24.70

VT00003

Purple Punch

PP-C03



No pathogen detected
Pathogen detected
Not tested

PANEL
Powdery Mildew

SAMPLE TYPE
3x Leaf

DATE OF RECEIPT
October 14, 2026

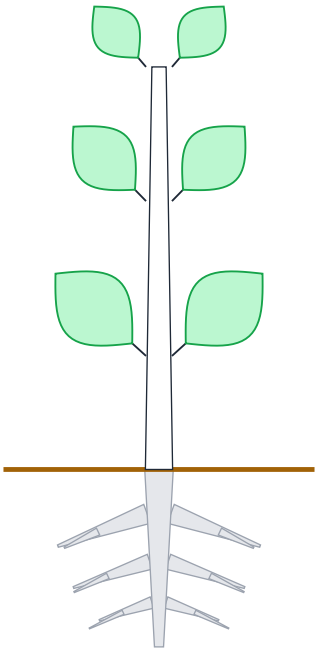
Results

Powdery Mildew	**DETECTED**	Cq 25.40
Internal Control (IC)	**PASS**	Cq 24.10

VT00004

White Widow

WW-D04



No pathogen detected
Pathogen detected
Not tested

PANEL
Powdery Mildew

SAMPLE TYPE
3x Leaf

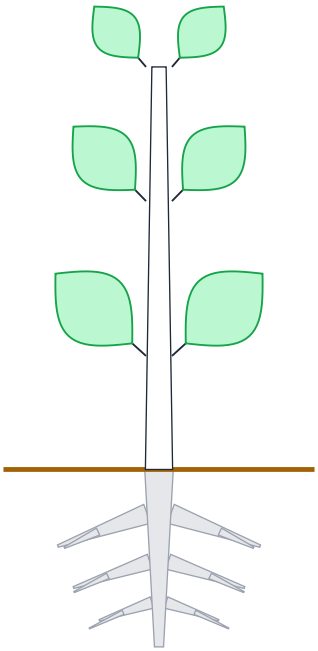
DATE OF RECEIPT
October 14, 2026

Results

Powdery Mildew	**NOT DETECTED**	No Cq
Internal Control (IC)	**PASS**	Cq 25.90

VT00005

Runtz
RZ-E05



No pathogen detected
Pathogen detected
Not tested

PANEL
Powdery Mildew

SAMPLE TYPE
3x Leaf

DATE OF RECEIPT
October 14, 2026

Results

Powdery Mildew	**NOT DETECTED**	No Cq
Internal Control (IC)	**PASS**	Cq 24.50