FARMER FREEMAN

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

# Pathogen Diagnostic Report

**Pan-Fusarium**

CUSTOMER NAME
Jordan Rivera

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 | Pan-Fusarium | IC |
|---|---|---|---|---|---|
| VT00001 | OG Kush | OGK-A01 | Root | NOT DETECTED | PASS 24.20 |
| VT00002 | Zkittlez | ZK-B02 | Root | NOT DETECTED | PASS 25.00 |
| VT00003 | Gorilla Glue #4 | GG4-C03 | Root | NOT DETECTED | PASS 24.80 |
| VT00004 | Purple Punch | PP-D04 | Root | DETECTED 29.30 | N/A 24.10 |
| VT00005 | White Widow | WW-E05 | Root | NOT DETECTED | PASS 25.50 |

- 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: **PFUS**. 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

### Pan-Fusarium (PFUS)

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

The Pan-Fusarium Detection Test is your frontline defense against a wide range of Fusarium pathogens. This assay detects the following species: F. oxysporum, F. solani, F. avenaceum, F. equisiti, F. falciforme, F. graminearum, F. lichenicola, F. proliferatum, F. sporotrichioides, and F. brachygibbosum. A positive result warrants immediate quarantine of affected material and implementation of sanitation protocols to prevent further spread.

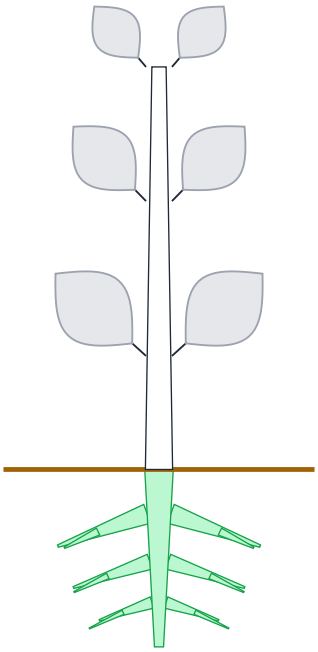
## Methodology

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

**OG Kush**
OGK-A01



No pathogen detected
Pathogen detected
Not tested

**PANEL**
Pan-Fusarium

**SAMPLE TYPE**
Root

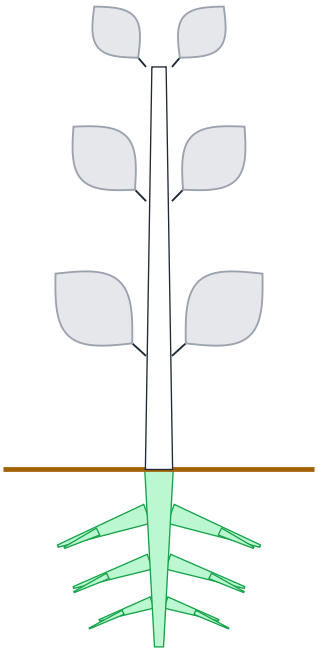
**DATE OF RECEIPT**
October 14, 2026

## Results

| | | |
|---|---|---|
| **Pan-Fusarium** | **NOT DETECTED** | No Cq |
| **Internal Control (IC)** | **PASS** | Cq 24.20 |

## VT00002

**Zkittlez**
ZK-B02



No pathogen detected
Pathogen detected
Not tested

**PANEL**
Pan-Fusarium

**SAMPLE TYPE**
Root

**DATE OF RECEIPT**
October 14, 2026

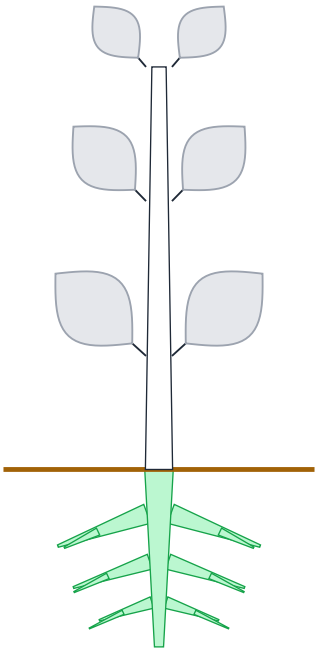
### Results

| | | |
|---|---|---|
| **Pan-Fusarium** | **NOT DETECTED** | No Cq |
| **Internal Control (IC)** | **PASS** | Cq 25.00 |

# VT00003

## Gorilla Glue #4

GG4-C03



No pathogen detected
Pathogen detected
Not tested

**PANEL**
Pan-Fusarium

**SAMPLE TYPE**
Root

**DATE OF RECEIPT**
October 14, 2026

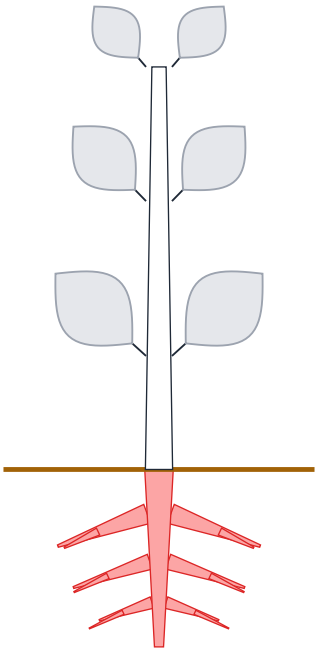
### Results

| | | |
|---|---|---|
| **Pan-Fusarium** | **NOT DETECTED** | No Cq |
| **Internal Control (IC)** | **PASS** | Cq 24.80 |

# VT00004

## Purple Punch

PP-D04



No pathogen detected
Pathogen detected
Not tested

**PANEL**
Pan-Fusarium

**SAMPLE TYPE**
Root

**DATE OF RECEIPT**
October 14, 2026

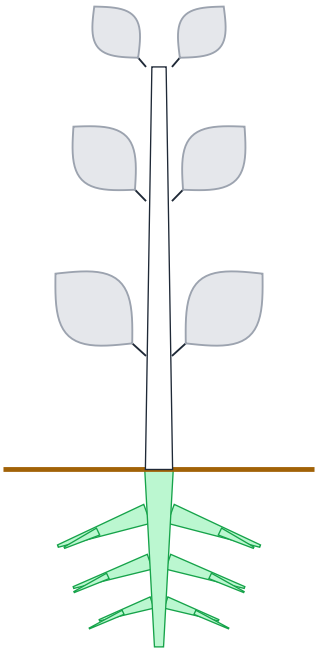
### Results

| | | |
|---|---|---|
| **Pan-Fusarium** | **DETECTED** | Cq 29.30 |
| **Internal Control (IC)** | **PASS** | Cq 24.10 |

# VT00005

## White Widow

WW-E05



No pathogen detected
Pathogen detected
Not tested

**PANEL**
Pan-Fusarium

**SAMPLE TYPE**
Root

**DATE OF RECEIPT**
October 14, 2026

### Results

| | | |
|---|---|---|
| **Pan-Fusarium** | **NOT DETECTED** | No Cq |
| **Internal Control (IC)** | **PASS** | Cq 25.50 |