Humboldt Farm Case Study

Not all pathogen testing services are created equal

AT A GLANCE

Challenges

- Transitioned from 7-acre outdoor facility to 4,000 sq. ft. indoor facility
- Unfamiliar with Hop latent viroid or pathogen testing in the cannabis industry
- Couldn't trust results from various pathogen testing services due to discrepancies in positivity rates

Results

- Custom pathogen mitigation plan paired with existing systems proactively prevents infection and spread
- Estimated 'thousands' saved by proactively testing new plants and testing before cutting clones

"Our testing budget is nothing compared to what we lose when plants have HLVd. The 10%-20% yield loss over 1000 plants per run can literally be a million dollar issue."

Humboldt Farm

Introduction

The Humboldt Farm team was previously operating an outdoor, 7-acre facility but then transitioned to indoor cultivation. Not long after the transition, the cultivation team at Humboldt Farm experienced 30% yield reduction and reduced flower quality.

They initially suspected that the nutrition, irrigation or air filtration system was creating suboptimal growing conditions. But any changes to these variables did not significantly increase yield. After conferring with an acquainted nursery, the team learned about Hop latent viroid and were referred to TUMI Genomics for pathogen testing.

Challenge

Even using their information systems to monitor plant health and growth, the team wasn't familiar with HLVd or pathogen testing services in the cannabis industry.

Before testing with TUMI Genomics the Cultivation Director at Humboldt Farm, began by vetting 12 HLVd testing laboratories, narrowing the list down to four that had the right reputation and price.

For two months, the Humboldt Farm team worked in tandem with the four different labs to test sick plants. Through testing and retesting, it became clear that other labs were not detecting HLVd. However, TUMI Genomics was accurate every time and measured a 20% - 25% positivity rate across the facility.

Results

TUMI's quantitative load data made phased recovery possible without halting production. The team pulled the highest-load plants first. They quarantined valuable low-load genetics, recloned them, and retested under strict sanitation. They built a nuclear "grandmother" stock to repopulate the nursery long-term, testing every plant twice before entry and again every 4 weeks.

Within four months, infection rates dropped to single digits. By six months, the operation was running at a sustainable 2–5%. Harvests jumped from 300–500 pounds to 500–700 pounds per run, an increase of more than 50%. The nursery won a product quality award after recovery and never stopped producing.