

SOIL AND NUTRIENT LAB

Plant Analysis Packages	
Cannabis Package	<p>Total nitrogen (TN), Phosphorus (P), Potassium (K), Magnesium (Mg) and Calcium (Ca), Aluminum (Al), Boron (B), Copper (Cu), Iron (Fe), Manganese (Mn), Molybdenum (Mo) Sodium (Na), Sulphur (S) and Zinc (Zn) in botanical material.</p> <p>AFL is an OMAFA-accredited laboratory using OMAFA-accredited tests. Although tissue analysis is not specifically part of the OMAFA accreditation program, OMAFA-accredited labs demonstrate the necessary proficiency to perform plant tissue analysis. As an OMAFA-accredited lab, the AFL participates in the North American Proficiency Testing Program (NAPT).</p>

PLANT DISEASE CLINIC

Cannabis Virus Screen (ELISA)	
Cannabis Virus Screen by ELISA	<ul style="list-style-type: none"> • Alfalfa Mosaic Virus (AMV) • Arabis Mosaic virus (ArMV) • Cucumber Mosaic Virus (CMV) • Tobacco Ringspot Virus (TRSV) • Tobacco Streak Virus (TSV) • Tobacco Mosaic Virus (TMV) • Tomato Bushy Stunt Virus (TBSV) • Tomato Mosaic Virus (ToMV) • Tomato Ringspot Virus (ToRSV)

RT-PCR Method for Hop Latent Viroid	
Hop Latent Viroid by RT-PCR	Hop Latent Viroid

Percent Germination	
Germination % - Canadian Methods and Procedures for Testing Seed	200 seeds (submit exact amount)

Plant Disease Diagnosis
Diagnosis

- Various (see below)
- Diseases of Hemp (Source: APS) (<https://www.apsnet.org>)

FUNGAL DISEASES

Anthraco nose (*Colletotrichum coccodes*)

Black dot disease (*Epicoccum nigrum*)

Brown blight (*Alternaria alternata*)

Brown leaf spot and stem canker (*Ascochyta* and *Phoma* spp.)

Charcoal rot (*Macrophomina phaseolina*)

Cladosporium stem canker (*Cladosporium* spp.)

Curvularia leaf spot (*Curvularia* spp.)

Cylindrosporium blight (*Cylindrosporium* sp.)

Damping-off (*Botrytis cinerea*, *Fusarium oxysporum*, *Fusarium solani*, *Macrophomina phaseolina*, *Pythium* spp., *Rhizoctonia solani*)

Fusarium foot rot and root rot (*Fusarium solani*)

Fusarium stem canker (*Fusarium sulphureum*)

Fusarium wilt (*Fusarium oxysporum*)

Downy mildew (*Pseudoperonospora* spp.)

Gray mold (*Botrytis cinerea*)

Hemp canker (*Sclerotinia sclerotiorum*)

Leptosphaeria blight (*Leptosphaeria* spp.)

Olive leaf spot (*Cercospora cannabis*, *Pseudocercospora cannabina*)

Ophiobolus stem canker (*Ophiobolus* spp.)

Phoma stem canker (*Phoma* spp.)

Phomopsis stem canker (*Phomopsis* spp.)

Pink Rot (*Trichothecium roseum*)

Powdery mildew (*Oidium* and *Oidiopsis* sp.)

Rust (*Aecidium cannabis*, *Uredo kriegeiana*, *Uromyces insonspicuous*)

FUNGAL DISEASES (continued)

Tar spot (*Phyllachora cannabis*)

Tropical rot (*Botryodiplodia theobromae*)

Twig blight (*Botryosphaeria marconii*)

Verticillium wilt (*Verticillium* spp.)

White leaf spot (*Phomopsis ganjae*)

Yellow leaf spot (*Septoria* spp.)

VIRAL AND VIROID DISEASES

Hop Latent Viroid, Tobamovirus Group
[Also see virus screening (ELISA) list above.]

PHYTOPLASMAL DISEASES

Witches' broom

BACTERIAL DISEASES

Bacterial blight (*Pseudomonas syringae* pv. *cannabina*)

Crown gall (*Agrobacterium tumefaciens*)

Striatura ulcerosa (*Pseudomonas syringae* pv. *mori*)

Xanthomonas leaf spot (*Xanthomonas campestris* pv. *cannabis*)

NEMATODE DISEASES

Cyst (Heteroderidae)

Root-knot (*Meloidogyne* sp.)

Stem (*Ditylenchus* sp.)