**SOIL AND NUTRIENT LAB**

|  |
| --- |
| **Plant Analysis Packages** |
| **Cannabis Package** | 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. AFL is an OMAFRA-accredited laboratory using OMAFRA-accredited tests. Although tissue analysis is not specifically part of the OMAFRA accreditation program, OMAFRA-accredited labs demonstrate the necessary proficiency to perform plant tissue analysis. As an OMAFRA-accredited lab, the AFL participates in the North American Proficiency Testing Program (NAPT).  | $70.00 |
|  |   |   |

**PLANT DISEASE CLINIC**

|  |
| --- |
| **Cannabis Virus Screen (ELISA)** |
| **Cannabis Virus Screen by ELISA** | * 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)
 | Volume Based (See pricing table below) |

|  |  |  |
| --- | --- | --- |
|   |   | **Number of Viruses Tested by ELISA** |
|   |   | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** |
| **Number of Samples Tested** | **1** | $100.60 | $129.60 | $150.40 | $172.40 | $194.40 | $215.20 | $236.00 | $258.00 | $278.80 |
| **2** | $122.60 | $162.00 | $190.90 | $219.80 | $248.70 | $278.80 | $307.70 | $336.70 | $365.60 |
| **3** | $140.00 | $186.30 | $224.40 | $261.50 | $298.50 | $335.50 | $372.50 | $409.50 | $446.60 |
| **4** | $157.30 | $211.70 | $256.80 | $301.90 | $347.10 | $392.20 | $437.30 | $482.40 | $527.50 |
| **5** | $174.70 | $237.20 | $290.40 | $343.60 | $396.80 | $450.00 | $503.20 | $556.50 | $608.50 |
| **6** | $192.00 | $262.60 | $323.90 | $385.20 | $445.40 | $506.70 | $568.00 | $629.40 | $689.50 |
| **7** | $209.40 | $288.10 | $357.50 | $425.70 | $495.20 | $563.40 | $632.80 | $702.20 | $770.50 |
| **8** | $226.80 | $313.50 | $389.90 | $467.40 | $543.70 | $621.30 | $697.60 | $775.10 | $851.50 |
| **9** | $244.10 | $339.00 | $423.40 | $507.90 | $593.50 | $677.90 | $763.60 | $848.00 | $932.50 |
| **10** | $261.50 | $364.40 | $457.00 | $549.50 | $642.10 | $735.80 | $828.30 | $920.90 | $1,013.40 |
|  |  |  |
| **RT-PCR Method for Hop Latent Viroid**  |  |
| **Hop Latent Viroid by RT-PCR** | * Hop Latent Viroid
 | $95.00/sampleIf < 10 samples, $100.00 set-up fee.If > 20 samples, $85.50/sample |  |

|  |
| --- |
| **Plant Disease Diagnosis** |
| **Diagnosis** | * Various (see below)
* Diseases of Hemp (Source: APS)

(https://www.apsnet.org) | Starts at $95.00/sample |

|  |  |  |
| --- | --- | --- |
| **FUNGAL DISEASES**  |  | **FUNGAL DISEASES (continued)** |
| Anthracnose (*Colletotrichum coccodes*) |  | Tar spot (*Phyllachora cannabidis*) |
| Black dot disease (*Epicoccum nigrum*) |  | Tropical rot (*Botryodiplodia theobromae*) |
| Brown blight (*Alternaria alternata*) |  | Twig blight (*Botryosphaeria marconii*) |
| Brown leaf spot and stem canker (*Ascochyta* and *Phoma* spp.) |  | Verticillium wilt (*Verticillium* spp.) |
| Charcoal rot (*Macrophomina phaseolina*) |  | White leaf spot (*Phomopsis ganjae*) |
| Cladosporium stem canker (*Cladosporium* spp.) |  | Yellow leaf spot (*Septoria* spp.) |
| Curvularia leaf spot (*Curvularia* spp.) |  |  |
| Cylindrosporium blight (*Cylindrosporium* sp.) |  | **VIRAL AND VIROID DISEASES**  |
| Damping-off (*Botrytis cinerea, Fusarium oxysporum, Fusarium solani, Macrophomina phaseolina, Pythium* spp., *Rhizoctonia solani*) |  | Hop Latent Viroid, Tobamovirus Group[Also see virus screening (ELISA) list above.] |
| Fusarium foot rot and root rot (*Fusarium solani*) |  |  |
| Fusarium stem canker (*Fusarium sulphureum*) |  | **PHYTOPLASMAL DISEASES** |
| Fusarium wilt (*Fusarium oxysporum*) |  | Witches' broom |
| Downy mildew (*Pseudoperonospora* spp.) |  |  |
| Gray mold (*Botrytis cinerea*) |  | **BACTERIAL DISEASES**  |
| Hemp canker (*Sclerotinia sclerotiorum*) |  | Bacterial blight (*Pseudomonas syringae* pv. *cannabina*) |
| Leptosphaeria blight (*Leptosphaeria* spp.) |  | Crown gall (*Agrobacterium tumefaciens*) |
| Olive leaf spot (*Cercospora cannabis, Pseudocercospora cannabina*) |  | Striatura ulcerosa (*Pseudomonas syringae* pv. *mori*) |
| Ophiobolus stem canker (*Ophiobolus* spp.) |  | Xanthomonas leaf spot (*Xanthomonas campestris* pv *cannabis*)  |
| Phoma stem canker (*Phoma* spp.) |  |  |
| Phomopsis stem canker (*Phomopsis* spp.) |  | **NEMATODE DISEASES** |
| Pink Rot (Trichothecium roseum) |  | Cyst (Heteroderidae) |
| Powdery mildew (*Oidium* and *Oidiopsis* sp.) |  | Root-knot (*Meloidogyne* sp.) |
| Rust *(Aecidium cannabis, Uredo kriegeriana, Uromyces insonspicuus)* |  | Stem (*Ditylenchus* sp.) |

|  |
| --- |
| **Percent Germination** |
| **Germination % -** Canadian Methods and Procedures for Testing Seed | * 200 seeds (submit exact amount)
 | $55.00/sample |