

## HEMP PROGRAM - Accessing Farmland and Assessing Environmental Risks

According to the [Land for Good](#), farmers face many challenges accessing farmland. Among these challenges is determining the suitability of land for agricultural production. To ascertain land suitability, it is necessary to identify potential land based environmental risks and determine if mitigation is possible, understand soil nutrient needs all prior to cultivation and even before leasing or purchasing land. A farmer can and should conduct research and gather information about the land – prior land uses, soil type and characteristics, and whether potential contaminants may be present in the soils or nearby. This FAQ focuses on the resources available to farmers to access land and assess condition and potential environmental risks on farmland.

### Frequently Asked Questions

#### **What resources are available to locate farmland in Vermont?**

There are several resources in Vermont that provide services to help find and lead farmers through the process of securing farmland.

Land for Good is a non-profit that helps individuals navigate the challenges of gaining access to farmland, <https://landforgood.org>. The Vermont Land Trust, [www.vlt.org](http://www.vlt.org), administers the Farmland Access Program that helps farmers find affordable farmland through a variety of strategies. New England Farm Finder, <https://newenglandfarmlandfinder.org>, offers the ability for both farmers to search for available land for lease or sale, and landowners to advertise land for lease or sale.

Additional support, for business development and other technical assistance, is available at the Farm and Forest Viability Program operated by Vermont Housing and Conservation Board, <https://www.vhcb.org/viability>.

#### **What resources are available to a farmer to find information about the type and quality of soils in a particular location?**

What is suitable for one type of cultivation may not be suitable for another, so understanding soil suitability for a prospective operation is also important. The mysteries of soil characteristics including soil wetness, erodibility, soil type (loamy, sandy, clayey), and slope, can be researched at the Natural Resources Conservation Service Web Soil Survey, <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Information can be accessed on a county level to an area of interest (AOI) as defined by the user.

A farmer can take samples and have soil tested for pH, the presence of nutrients (phosphorus, calcium, magnesium, nitrogen, and potassium), % organic matter, and contaminants including heavy metals. Soil testing is available at the University of Vermont (UVM) Agricultural and Environmental testing Laboratory, <https://www.uvm.edu/extension/agricultural-and-environmental-testing-lab>; or Cornell University which is also able to perform soil density testing,

<https://soilhealth.cals.cornell.edu/testing-services/>. Each of these services include information on how to take and send a soil sample to the laboratory, costs of testing services, and turnaround time. UVM Extension, Northwest Crops and Soils Program offers a field notes logbook for production activities and for keeping track of soil test results, [https://www.uvm.edu/sites/default/files/Northwest-Crops-and-Soils-Program/Industrial%20Hemp/Hemp\\_Record\\_Keeping\\_Booklet\\_FINAL\\_050620.pdf](https://www.uvm.edu/sites/default/files/Northwest-Crops-and-Soils-Program/Industrial%20Hemp/Hemp_Record_Keeping_Booklet_FINAL_050620.pdf).

### **What are land based environmental risks?**

The cannabis plant is known to accumulate and store contaminants found in soils in its roots, stems, leaves and flowers. For this reason, it is important to test your soils and understand potential risks.

There are a variety of land based environmental risks that may impact production on a farm. Risks may be from past land use activities that lead to presence of contaminants in soils, or the potential for surface water flooding of farmland. Assessing risks can also depend on the current agricultural operation and practices.

Land based environmental risks in the form of heavy metals in soils can be caused by prior agricultural activities such as orchard use, and other common agricultural inputs can be sources such as wood ash, fertilizer, biosolids, and manure.

Location of cultivation relative to natural features such as a flood plain, or man-made features such as manure storage, or farmland proximity to offsite hazardous waste generators or storage sites, can also be identified and used to determine risk.

### **How can a farmer reduce impacts of environmental risks?**

The first step to reducing environmental risk is being able to identify potential risks. The Natural Resources atlas, <https://anr.vermont.gov/maps/nr-atlas>, can help farmers identify potential risks and contains locations of hazardous waste sites and generators, brownfields, flood hazard areas, among other pieces of information.

Identifying potential risks due to farm activities may include interviews with the current farmer about farm operations.

A farmer can strategize how to reduce impacts to their hemp production operation by considering mitigation plans or avoiding the identified risk. Strategies might include not planting hemp in a particular field, determining if crop insurance is available in case of natural disaster, or testing harvested crops for heavy metals and other potential contaminants in the case of no soils tests on soils prior to planting as outlined in the Vermont Hemp Rules, [https://agriculture.vermont.gov/sites/agriculture/files/documents/PHARM/hemp/Vermont\\_Hemp\\_Rules\\_effective\\_05\\_21\\_20.pdf](https://agriculture.vermont.gov/sites/agriculture/files/documents/PHARM/hemp/Vermont_Hemp_Rules_effective_05_21_20.pdf)