

# UF/IFAS Industrial Hemp Pilot Project: Hemp pests in Florida – Grower FAQs

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Florida growers with hemp permits will begin to obtain plant material as soon as possible. Unfortunately, pest management is often not considered until it is too late.

Over the last year, the **UF/IFAS Industrial Hemp Pilot Project** team learned the hard way how important it is to have a pest management plan prior to importing hemp into an operation.

The day after receiving the first stock plants at the UF/IFAS Mid-Florida Research and Education Center in Apopka, researchers found both aphids and whiteflies. The plants had already passed phytosanitary inspections by regulatory staff in the states of origin and in Florida.

This fact sheet specifically applies to plant material. There are a few pest issues that will impact seeds, but UF/IFAS has observed significantly more issues from arthropods on plants and cuttings both rooted and unrooted.



**Left to right, top to bottom:** Hemp russet mite, Glover mite on hemp plants, Glover mite, Omnivorous leaf roller and Rice root aphid

### What pests may I find on hemp plants?

Unfortunately, most of the hemp plant shipments received by UF/IFAS have been infested with either the cannabis aphid or the hemp russet mite. Both of these species are not established in Florida and are thus considered actionable pests. Actionable pests being present means that the plant material will be quarantined and not allowed to be moved until certified to do so.

### What should I do before ordering hemp plants?

A pest management strategy must be in place prior to purchasing plants or cuttings. First, talk to your supplier to develop a plan to minimize the risk of importing unwanted pests. There are consequences for suppliers who ship infested hemp plants to Florida, so it is in their best interest to work with you.

The pesticides that the hemp industry can use are limited and require many applications to reach nondetectable pest levels. There is no guarantee that the supplier will eradicate every pest and ship completely pest-free plant material.

All pests should be identified by your supplier and by you if detected in your crop. Only heavily infested plant materials or plants infested with pests not found in Florida will result in regulatory action by FDACS. You can set guidelines as to what you will accept as long as it is within the FDACS parameters. Suppliers can share with you what methods seem to work in the control of various potential pests. Any materials used have to be legal for use on hemp before you can use them in Florida according to FDACS guidelines.

### How do I handle hemp plants once they arrive?

Within your facility, set up a location to quarantine all new plant material as it arrives. This is something UF/IFAS recommends to ornamental and greenhouse vegetable growers as well. This gives you the opportunity to inspect new plants for a few weeks, and increases your probability of identifying any problems, thus reducing the risk of contaminating your growing facility.



Growers and scouts should use a high quality 10x or 20x hand lens when scouting for pests.

## Should I scout for pests after receiving my hemp plants? How often and why?

Scouting for arthropod pests is the foundation for managing them both efficiently and economically. Growers and scouts should use a high quality 10x or 20x hand lens. Our favorite lens generally costs more than \$20, but their quality is well worth the extra money. We purchase ours from scientific supply houses such as Fisher Scientific, Forestry Suppliers and Bioquip Products. As these are very tiny pests, we recommend two hand lenses: a 10x and 20x.

### Why continue to scout?

Besides the obvious need to detect problems before they are so bad you are at risk of losing your crop, you need to be able to determine if your control tactics are working. Knowing what pests are present will dictate what control measures will help mitigate the damage they cause.

### What happens if I find pests on my hemp plants?

Immediately quarantine the plants that have pests if they are not already quarantined.

Upon finding pests on the UF/IFAS hemp stock plants, the UF/IFAS greenhouses were quarantined. Nothing could be moved out of the greenhouses until the state inspectors found no pests after at least three consecutive inspections. It took months before the plant material was clean from aphids or mites and able to be moved out of the greenhouses.

### What can I do to reduce pest risk?

#### In greenhouses

It is much easier to prevent pest problems than it is to cure them. UF/IFAS does not allow visitors to the stock plant growing facility. We have no idea where people have been prior to coming to visit and they could bring in a pest with them.

A method to consider that is also used in citrus greenhouses, upon entry, you are sprayed with a disinfectant and you must step in a disinfectant-containing foot bath prior to entry. This is mainly to prevent tracking in diseases but it's also another example of how you should try to prevent pests from gaining entry if you can.

### When handling or transporting hemp plants

In some cases to help kill unwanted pests, we dip cuttings in soaps or oils prior to rooting or transplanting them into larger containers. This is also a common practice in the Florida ornamental industry with the directions for doing so included on some pesticide labels. We have published several papers evaluating this method to kill such pests as mealybugs, **whiteflies** and mites. In general, we found that soaps and oils were both safe and effective. Certain pesticides might work better, but the safety to both workers and the plant material is an issue that has limited our interest in evaluating such treatments. This tactic is just an additional tool in a systematic approach to managing the risk of importing unwanted pests on new plant material.

### What else can I do to be prepared for hemp pests?

We recommend making a list of the pests you might potentially find attacking hemp in Florida. Next, make a list for each pest of the pesticides that are legal, approved in Florida and available to you. Pesticide labels will list which pests it has activity on, the rates to be used and other use directions, precautions and restrictions. This will reduce the number of materials on your list. UF/IFAS and FDACS publications and consultants can provide some help with developing a list of materials registered in Florida.

Once you have a list, check the supply chain for each material. Some of the pesticides listed may only come in small quantities or they may be very difficult to find in Florida. Once you have a small quantity of the pesticide, treat a small number of plants with the material using the frequency and all other labeled instructions to determine plant safety (phytotoxicity) in your particular environment.

### Additional resources

The Florida pesticide list is not all inclusive. There are materials that may be legal and potentially useful in Florida hemp production, but FDACS is adding materials to the list as they make decisions on their legal usage. FDACS publishes a list of products they have approved for use on hemp (**Pesticide Products for Use on Hemp**). They have also developed a document that explains the criteria they use to make their decision about adding a product to their list (**Pesticide Brochure**).