

Cannabis pests and diseases



Even if you grow cannabis in a controlled environment, controlling pests and diseases is still of the utmost importance to ensure the commercial success of your venture, says **Thomas Walker**.

It is prudent to mention that problems in cannabis production can be difficult to diagnose. Many factors may be at play and making a decision based on these metrics alone could prove to be ineffective.

PESTS

An integrated pest management (IPM) regime comprising biological controls, cleanliness, screened intakes and organic pesticides will mitigate most pests, although nature will always find a way.

Thrips, spider mites, aphids, whitefly, snails, slugs and fungus gnats are the pests you will encounter when growing cannabis. Sticky yellow fly traps can be used to indicate the current rates of infection of various types of pests.

Typical organic pesticides used to prevent and control cannabis pests are pyrethrum and neem oil; always check application mixing rates and instructions. After application, spray the plants with pure water to remove any residue.

Biological controls such as ladybugs (natural predators of spider mites, aphids and small caterpillars) and predatory mites and nematodes can be your allies.

• Thrips

Thrips don't pose much of a threat to cannabis, but keeping them in control is important. They will usually pierce plant tissue and suck out essential fluids, which can cause leaf deformation and/or death. Thrips are very difficult to completely eradicate, but neem and pyrethrum (foliar spray) can keep their numbers manageable.

• Spider mites

Spider mites are usually identified by the damage they inflict on leaves. A single spider mite can produce thousands of offspring in a single month. They are very difficult to see

without a loupe or microscope, and appear as small specks that are either brown, red, yellow, or white. Once they're at an advanced stage, spider mites can completely cover buds in webbing, leading to complete loss.

Neem and pyrethrum are effective against spider mites, but ineffective if infestations are rampant. In these cases, it's usually best to eliminate the plant from production to prevent further spread to other plants.

USE ORGANIC PESTICIDES THAT ADHERE TO LOCAL AND OFF-TAKER COMPLIANCE

• Aphids

Aphids range in colour, including brown, green, black and pink, and are usually easy to spot with the naked eye. They are present in many different climates.

They secrete a sticky substance which can lead to mould, as well as diminished quality and growth.

Aphids are best controlled by ensuring all intakes are screened or filtered, as this is the primary way for them to enter the growing area.

DISEASES

Prolonged exposure to high humidity and improper hygiene of the facility and tools are the main factors that lead to disease in cannabis plants.

• Powdery mildew

Powdery mildew is transmitted to cannabis when the airborne spores land on a leaf surface. Once in an advanced stage, powdery mildew

resembles a fine greyish-white powder that rapidly spreads as the spore count rises. When a plant is infected with powdery mildew, small round blotches will start to appear on the leaves. If left untreated, the mildew can come to cover most of the plant.

Medicinal cannabis markets do not allow for powdery mildew, and any infected plants will fail tests and will need to be destroyed.

• Botrytis

Bud rot or botrytis is a fungus that will proliferate in cannabis due to prolonged exposure to high-humidity environments. It is considered the worst of the cannabis diseases, and is able to lie dormant in water and emerge when conditions are suitable for its spread.

Once the plant is infected, the spores show up in the buds and can be identified as brown or rotten areas.

The most effective form of prevention is to create an environment that is undesirable for botrytis to proliferate. Humidity should be kept below 50% and the temperature between 18°C and 20°C.

Maintaining extreme cleanliness, as well as a plant and leaf surface pH that is alkaline rather than acidic, will also help with prevention.

CONCLUSION

A clean environment and a preventative IPM regime are the best defence against cannabis pests and diseases. Make good use of predatory insects to lessen your reliance on pesticides and, when needed, use organic pesticides that adhere to local and off-taker compliance.

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