

A Use-Case Scenario of Agricultural Areas That Cannot Be Monitored By A Drone Alone

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Drones are really important for precision farming, but it has its drawbacks and limitations. These are the few case-studies where drones alone are not effective

- **Automatic Pruning:**

Plants need occasional pruning to ensure the crop grows healthy. Thus, this becomes very tedious for large numbers of crops and helps reduce yields as it is not economical to prune every plant manually. A drone that can automatically chop off dead parts of the plants can help increase yields enormously as it removes the need for a person to go and do that.

- **Ability to pollinate(Like Bees):**

While insects do help pollinate plants, sometimes outbreaks of disease or new predators can reduce their numbers. Alternatively, if it is greenhouse agriculture, they cannot get to the plants. Here, a drone would be immensely useful if it had the autonomy/manoeuvrability to fly inside flowers to gather pollen and deposit it onto the plants.

- **Ability to observe the leaves at the under:**

Most of the issues that sap crop yield stem from pests and fungus that take hold underneath the leaves, so they are not immediately visible from an overhead look. Most agricultural drones cannot go into the dense foliage and look under the leaves yet, simply flying overhead. Granted that sensors that can see through the foliage will help, but none of these is available yet for sensing bugs/fungus/pests that are damaging leaves/plants.