# THE JOURNEY TO USING DRONES IN AGRICULTURE

Drones are used in many aspects in the agricultural space. The use of Multispectral and Thermal sensors can detect problem spots before they can be seen with the naked eye. Drones can be used for mapping, scouting and applying products like pesticides and seed. This document outlines the process to begin using drones in agriculture.



### STEP 1: Get legal

### □ UNDERSTANDING WHY YOU NEED A LICENSE

Simply put, you will be operating an aircraft within the national air space, that carries and dispenses potentially hazardous material. The FAA requires certain documents that demonstrate an equivalent level of safety to that of manned operations. Since there is no official document specific to spraying from a drone, you must petition the FAA for certain exemptions. The granting of these exemptions will be needed in order to obtain a 137 certification. The two other certifications that you will need are the 107 certification (drone license) and a pesticide applicator's license. It is the combination of the drone license, pesticide applicator's license and the 137 certification that grant you the ability to spray by drone.

#### ☐ STUDY FOR YOUR EXAM

oak PA part 107 remote pilot certificate is needed. If you use the drone for more than just a hobby.

### **HELPFUL RESOURCES**

- ☑ www.faa.gov
- **☑** www.usda.gov
- ✓ www.epa.gov
- www.faadronezone.faa.gov
- www.faa.gov/documentLibrary/media/ Advisory\_Circular/AC\_137-1B.pdf

\*For a full list of resources, please see the end of the document

### ☐ SCHEDULE YOUR EXAM

Create an IACRA account. The FAA requires applicants to create a pilot account before the test.

### □ WHAT IF YOU FAIL... OR WHAT IF YOU PASS?

If you pass, excellent! If you fail, take 2 weeks to study more and take it again!

STEP 2: Get authorized to spray

### □ UNDERSTAND HOW TO BE AUTHORIZED TO LEGALLY SPRAY

Aerial spraying requires you to have an Agricultural Aircraft Operations Certificate. (137 Aerial Applicator)

### ■ ENSURE YOU ARE AWARE OF THE 55LB THRESHOLD

Operating drones over 55lbs requires a different process to certification.

### SCHEDULE AN INSPECTION

If you are granted an Operating Certificate you will need to visit your local FSDO. (Flight Standards District Office)

### **SCHEDULING RESOURCES**

- www.faa.gov/about/office\_org/field\_offices/fsdo/ all\_fsdos
- www.faa.gov/documentLibrary/media/ Advisory Circular/AC 137-1B.pdf
- ☑ Drone Operations Over 55lbs
- **E** FAA Form 8710-3

\*For a full list of resources, please see the end of the document

### WE'VE BEEN THROUGH THIS PROCESS AND CAN HELP!



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**STEP 3:** Ensure you can spray pesticides

### ☐ YOU PROBABLY KNOW THIS ALREADY BUT...

If you use pesticides, proper use is important. Restricted Use Pesticides need to be handled and applied in specific ways. How do you want to use a spray drone? A commercial applicator is for-hire. Private applicators spray their own vegetation. Check with your state's Department of Agriculture.

### **STEP 4:** This is what we're here for

### **NOW FOR THE FUN PART!**

Your new tool! Drones come in many configurations, sizes, and uses.

### □ DECIDE WHAT YOU WILL BE USING YOUR DRONE(S) FOR

Spraying, spreading, mapping, multispectral, thermal imaging, scouting, livestock surveillance. Consider not only the drone but the sensors and software needs.

### PREFER TO LET US DO THE WORK?

- aerialinfluence.com
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A.I. AGRICULTURAL DRONE CLINIC

### **STEP 5:** Train on your drone

### ☐ UNDERSTAND HOW TO SAFELYOPERATE YOUR DRONE

When it comes to operating a spray drone, many factors come into play. Consider a drone that is built for agriculture decision making before you jump into drone spraying.

### GET AN AG DRONE

Multispectral drones and high resolution mapping drones can assist with plant counts and plant growth. This is a great way to begin your agricultural drone journey while gaining actionable data for your drone program. Spraying drones and mapping drones go hand in hand. Together with software you are covered from planning to execution.

### STEP 6: Stay up-to-date

### ☐ STAY ON TOP OF YOUR DRONE KNOWLEDGE

Follow us of course! Check out our links to FAA resources and more.

### □ LET US DO THE HARD WORK FOR YOU

Aerial Influence petitioned and received our Aerial Applicator's Operating Certificate. We have consulted with individuals and companies, helping them submit the proper paperwork.

## SIGN UP FOR OUR EMAILS TO GET THE LATEST DRONE INDUSTRY KNOWLEDGE!





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### COMPREHENSIVE LIST OF LINKS

### **STEP 1: GET LEGAL**

- FΔΔ Certification
- Paths to Flight
- FAA.gov
- USDA.gov
- EPA.gov
- Send Your Petition for Exemption or Rulemaking
- Part 107 Summary
- **L** AC 107-2A
- Dilot Handbook
- Remote Pilot Study Guide
- 🗹 UAS ACS

### **STEP 2: GET AUTHORIZED**

- Γ. ΔC 137-1R
- Dispensing Chemicals and Agricultural Products (Part 137) with UAS
- ✓ Drone Operations Over 55lbs
- Special Authority for Certain Unmanned Aircraft Systems (Section 44807)
- 💪 All FSDOs
- 🔼 FAA Form 8710-3

### **STEP 3: PESTICIDES**

- Pesticide Training
- Pesticide Record Book
- Pesticide Record Form
- Pesticide Record Keeping
- PRP Inspections Fact Sheet
- PRP Record Keening Brochure

Scan this QR code to be taken directly to a clickable list of links.



