

MASTER THE SKY

COMPLETE COMMERCIAL REMOTE AGRICULTURE PILOT PACKAGE

CASA-accredited training programs tailored for pilots. We deliver a complex course with elements designed specifically for the agriculture industry, and use of medium category spray drones.

What We Do?

ENQUIRE NOW

At Uncrewed, we provide comprehensive CASA-accredited training for pilots looking to operate RPAS in Agriculture from start to finish.

We offer additional courses tailored to specific categories, aircraft types, weights, and applications. Beyond RePL courses, we offer advanced training in complex systems and specialized operations such as night operations, surveying, mapping, EVLOS 1 & 2 for Pilots and Observers, and BVLOS Exam Preparation.

Medium category AG drones (25kg - 150kg) require professional training, thorough theoretical knowledge, understanding of flight manuals, and performance characteristics. Compliance with various aviation regulations is essential, with RePL being mandatory for all RPAs over 25kg when operated by a Landholder or Commercial Operator.

Upon completing any course with us, your journey continues. You will have access to up-to-date resources relevant to your operations and the ongoing support of expert instructors and trainers throughout your progress.



>>> Key Benefits

Comprehensive Training

We provide comprehensive training and all the necessary equipment for mastering drones in agricultural settings. Our training sessions cover everything from basic flight skills to advanced field operations and data analysis, offered at various locations nationwide.

Train On Your Own Property

Acquire drone skills by practicing on your own property or farm, where you can directly address your specific agricultural needs. By receiving training at your location, you can save on travel costs and time, reducing any interruptions to your daily activities.

Customed AG Package

We customize each package to meet your requirements and can adjust your training programs to align with your schedule and specific needs. Our specialists tailor the training to match your unique needs and crops, guaranteeing practical, real-world relevance.

Expert Guidance

Gain valuable expertise from industry experts. Our instructors are at the forefront of agricultural drone technology, providing valuable insights and guidance during your training.

http:// https://uncrewedaviation.com.au/

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Training & Qualification Requirements

Our goal is to uphold high-quality training standards that set the benchmark for CASA approval in various categories. This approach earns respect and recognition within the industry for individuals trained by us.

There are two ways to gain entry to a type rating, and it's crucial to comprehend both as enrolling through either pathway doesn't assure a pass or type rating. You will gain understanding of the diverse performance traits of the aircraft, which can vary notably with the introduction of payloads. Completing this course will equip you for your CASA type rating on the aircraft you select.

Type Rating <u>and</u> **Training** - We take one full day training on operational capabilities and practical competency to prepare the student for the type rating and only move to type rating assessment when we feel they are ready.

Type Rating <u>only</u>: The assessor cannot "coach" in any way - the student needs to have the knowledge and skills when they arrive, including knowing all functions and operational commands of the drone.

Uncrewed Aviation Australia offers CASA-approved, aircraft-specific syllabi for all our aircraft delegations.

This enables us to provide tailored on-type training that focuses on enhancing your skills and confidence, preparing you for your type-rating. This preparation is designed to ensure you are well-prepared, whether you pursue it directly with us or through CASA.

Once issued with your Type Rating & ReOC, we assist with your AgReOC

This is a requirement for drone operators who intend to use RPAS for agricultural purposes. Obtaining an AgReOC involves meeting specific requirements set by CASA, which typically include demonstrating knowledge of relevant aviation regulations, safety practices, and specific operational considerations related to your specific Ag processes. This certification ensures that operators are equipped to conduct these operations safely and legally within Australian

Inis certification ensures that operators are equipped to conduct these operations safely and legally within Australian airspace.

>>> Accreditation stages & timing



Landholder* Commercial Operator* Pathway Example:

A LandHolder refers to an individual or entity that owns or manages agricultural land An individual or organisation that uses drones for or financial gain or reward LandHolder holds RePL, AROC & Type Rating Only, Contractor holds RePL, AROC, 25kg & Night Operations, ReOC & Type Rating





per hour **21.3** hectare

(farmland)

per hour 4 hectare

(orchards)

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>>> Advantages of Drones in the Industry

Timing



- Ability to spray at the optimum time with no reliance on outside contractors
- Ability to spray at the optimum time when the ground is too wet
- Ability to spray at night and when wind is calm to absolutely minimise spray drift

Improved Precision and Control



Drones provide accurate control for spraying and monitoring tasks, decreasing the chances of overusing chemicals or resources. This precision boosts efficiency while also reducing the potential health and environmental hazards linked to imprecise or excessive spraying.

- Vast application coverage in dense crops, customizable to the specific crop type being sprayed
- Effective applications of fungicide
- Good coverage for grass weeds 'dots per square centimetre
- Mature crop application for grubs (Heliothis control) in pulses

DJI AGRAS T50 Specs*

per hour 1.5

tonnes of fertilizer (spreading)

Drones eliminate the need for manned aviation in agricultural operations, significantly lowering the risk of accidents and injuries to pilots and ground personnel. Farmers and workers can conduct operations from a safe distance, reducing exposure to potentially hazardous environments.

Cost Effective

Improve Safety



By removing the necessity for manned pilots and their related expenses, drones present notable cost reductions in agricultural activities. They enhance resource and time utilization, enhancing overall operational efficiency and profitability.

- Substantial cost savings on equipment compared to acquiring or hiring manned aviation spraying gear
- Elimination of wheel damage and crop loss
- Flying above rather than driving through your crops

Increase Yield



Drones enable farmers to monitor crops in a timely manner during the growing season. By detecting early signs of disease, pests, or nutrient deficiencies, drones facilitate prompt intervention. This proactive method assists farmers in reducing potential crop losses and maximizing yield outcomes.

• Embracing RPA efficiencies will enhance both your output and yield.



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DJI has developed the world's leading full-stack of agriculture drones. It starts with game-changing mapping and positioning, followed with crop health analysis and then precision spraying and seeding.

Field Mapping & Surveying

To gather precise GPS data for field and topographic mapping, multispectral imagery, and advanced 3D photogrammetry applications for land, water, and livestock analysis, rely on the Phantom 4 RTK system for exceptionally efficient performance.

• DJI Mavic 3 Enterprise - RTK Module | 1cm-1 ppm Positioning | 4/3 CMOS Sensor | Survey Grade | 15km Transmission

Crop Health Analysis

Combining data from six separate sensors enables the measurement of crop health across individual plants, entire fields, as well as weeds, insects, and various soil conditions.

Collect accurate plant-level data with the P4 Multispectral, a high-precision drone equipped with an integrated multispectral imaging system designed for agricultural tasks and environmental monitoring.

• DJI Mavic 3 Enterprise Multispectral - RGB Multispectral Imaging | Live NDVI View | RTK Module | 15km Transmission

Spraying & Seeding

By harnessing cutting-edge agricultural precision mapping, GPS, and RTK systems, along with accurate droplet management and dispersion, the DJI AGRAS T30 achieves unprecedented efficiency in delivering chemical and seed payloads.

Spraying and seed spraying at a rate of up to 40 acres per hour with a 30-liter capacity, ideal for terrains inaccessible to manned aircraft. Check out the DJI AGRAS T30 / 40 / 50 for this purpose.

 DJI AGRAS T50 – 103kg MTOW | 40kg Spraying or 50kg Spreading Load | 75 liter Seeding | 4 Sprinklers | 24 liters per minute | 21 Hectares per hour | Swarm 3 RPA | Obstacle Avoidance | Centimeter Positioning



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Got a O?

Email Us



The future of Drones in the AG industry

The future of drones in agriculture holds great promise, providing farmers with groundbreaking opportunities in precision farming, automation, and sustainability. With advancing technology and increasing adoption, drones are set to become essential instruments for boosting productivity, efficiency, and environmental stewarship in agriculture.

>>> Swarm Spraying

Swarm spraying involves controlling multiple UAVs simultaneously, where several UAVs work together in coordination.

This method of agricultural operation offers the advantage of covering more hectares per hour. By adjusting application rates during the process, you can potentially reduce chemical costs by up to 30%, depending on the application. Automated loading helps cut labor expenses and simplifies operations.

Farms that are challenging for manned aviation due to topography, accessibility, or risks can now benefit from precision agriculture with drone technology.

Utilising the DJI AGRAS system with three drones in a swarm can triple your effective coverage and application rates.

>>> Advantages of a Swarm

Enhance Area Coverage:

Capable of traveling and covering numerous areas of any size or shape, each receiving the precise amount of designated chemicals.

Consistent Coverage:

Precisely spraying the entire farmland, the robots are engineered to navigate around obstacles like trees and power lines.

Spray Optimization:

Optimizing the entire mission's profitability by analyzing terrain, crops, pesticides, imagery, and equipment data.

Real-Time Management:

Continuously communicating, computing, monitoring, correcting, and overseeing the entire spraying swarm operation autonomously.

Adapt to Obstacles:

Successfully completing the autonomous spraying mission by identifying and avoiding unexpected obstacles, even working in close proximity to them.



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Our website











ENQUIRE TODAY

Ready to soar into the future of agriculture?

Gain the skills you need with our comprehensive drone training program. Equip yourself with these revolutionary farming technologies, and increase your efficiency and sustainability.

Start your journey today and cultivate a promising career in the agriculture industry



Step 1: Acquire your AQF3 accreditation.

The AQF3 Chemcert, crucial for Chemical Transportation & Application, is a required certificate for handling chemicals.

Don't forget to mention that you were referred by Uncrewed Aviation!



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Step 2: EPA Chemical Application Licence

As a commercial operator, remember that you will need an EPA RPAS Aerial Chemical Application Pilot Licence.

This license may be necessary for your business activities, so feel free to contact the team for further information.

Let's get you started... Drones and Accessories we offer

Should you require the purchase of a drone we can also guide you to select and purchase the right drone based on your specific needs and requirements. We source directly from importers and can beat any pricing!



DJI FLYCART 30

Dynamic Aerial Delivery for Heavy Payloads

& Long Distances

Specs:

Read more >

30kg Max Payload (Dual Batteries) | 40kg Max Payload (Single Battery)| | 20 m/s Max Speed | 6,000m Max Flight Altitude



DJI AGRAS T40 & T50

Elevate AG Operations

Specs:

40 kg spraying o50 kg spreading payloads | Spraying 16 L/min | Spreading 108 kg/min | Offline operations | Multidirectional Obstacle Avoidance, Terrain Following up to 50° | Four Sprinkler Kit (Optional) 4-sprinkler spraying, flow rate 24 L/min

Read more >

D-RTK 2 BASE STATION

High precision GNSS Mobile Station Specs:

Centimetre-Level Positioning | Accuracy Horizontal: 1 cm+ 1 ppm(RMS), Vertical: 2 cm+ 1 ppm(RMS)

Compatible with Phantom 4 RTK, P4 Multispectral, MG-1P RTK, Agras T16, Agras T20, Matrice 210 RTK V2 and Matrice 300 RTK Read more >



MATRICE 350 RTK

High-Precision Mapping & Precision Inspection

Specs:

55-Min Max Flight Time | 6-Directional Sensing & Positioning | Night-Vision FPV Camera | Multi-Payload Support | 7000m Max Flight Altitude Ability to carry three payloads simultaneously at max payload of 2.7 kg | Now used in jobs within public safety, inspection, and mapping.

Read more >















