UNIVERSITY OF MARYLAND EXTENSION

Drone School – Beginners School 2024

Dates: August 5, 6, 7, and 8, 2024
Location: CMREC, 4240 Folly Quarter Road, Ellicott City, MD 21042

Day 1: August 5, 2024 (Monday)

8:00 – 8:15 Introduction to the 4-day program David Clement and Stanton Gill

8:15 - 9:00
Kirk Floyd, KDrone Services

1. Intro to using drones in Horticulture and Agriculture.
A. How are drones being used today in Horticulture and Agriculture.
B. How will drones help your business or career?
C. Different drones used in Horticulture and Agriculture.
D. What drones do you need to get the job done?

9:00 – 10:15
Kirk Floyd, KDrone Services

2. Fundamentals of drone operations.
A. Drone systems and controls
B. Pre-Flight checks and check list.
C. Calibration
D. Drone Safety
E. Drone software and apps.
F. Licensing and FAA, DJI, LAANC

10:15 – 10:30 Break

10:30 – 12:00
Kirk Floyd, KDrone Services, David Clement, Andrew Ristvey, Stanton Gill, Sheena O'Donnell, and Suzanne Klick, University of Maryland Extension

3. Training on DJI Tello Drone.
A. Introduction to Tello Drone.
B. Start up and controls.
C. Take off, hover and landing.
D. Safe Flying
E. Flying small practices drones outdoors at CMREC facility

12:00 – 1:00 Catered lunch
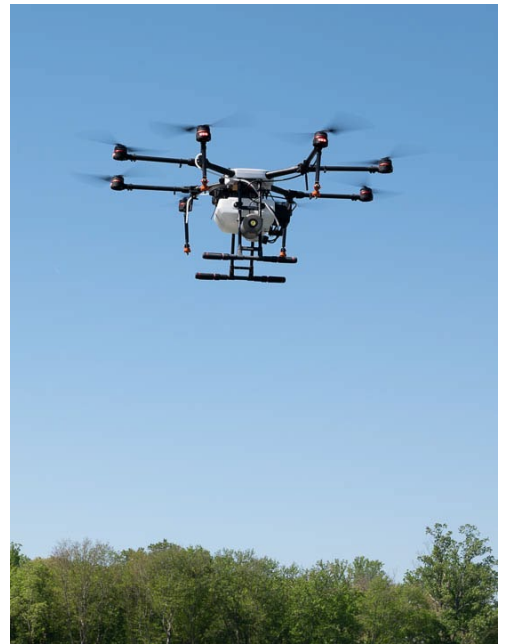
1:00 – 3:00
Kirk Floyd, KDrone Services

4. On hands flight training
A. Take off
B. Hovering
C. Landing
D. Emergency Procedures
E. Drone Practice

Day 2: August 6, 2024 (Tuesday)

8:10 – 9:00
Using Drones in the Nursery for Disease Control
David Clement, University of Maryland Extension
This section will demonstrate examples of trials conducted using drones in nurseries to control disease with new low risk fungicides and bio fungicides

9:00 – 10:00
Insect control using drones
Stanton Gill, University of Maryland Extension
This section will demonstrate examples of trials conducted using drones in nurseries to control insect infestation with low risk pesticides and beneficial organisms.

10:00 -10:15 Break

10:15 – 11:00
Kirk Floyd, KDrone Services

2. Mapping with drones and analytic software
A. Flight Software
B. Processing Software
C. Pe-Flight Planning
D. Drones for mapping
E. On Site Prep and Planning

11:00 – 12:00
Use of UAV imaging for early detection of plant nutrient deficiencies and water stress
Andrew Ristvey, University of Maryland Extension
This talk will discuss the potential of the use of drones for determining plant nutrient and water stress, how it will work with some examples of research presently being performed, and finally, the limitations of use.

12:00 – 1:00 Catered lunch

3. Flying a Flight plan
Kirk Floyd, KDrone Services, and Hemendra Kumar, University of Maryland Extension

A. Site Checks

B. Pre-Flight-Checks
C. Flight Software Checks
D. Takeoff
E. In Flight Procedures
F. Emergency Procedures
G. Landing Procedures
H. Uploading Data

4. Hands on Drone Training
Kirk Floyd, KDrone Services, and David Clement, Andrew Ristvey, Stanton Gill, Sheena O'Donnell, and Suzanne Klick, University of Maryland Extension

Practice maneuvers at CMREC with small drones

Day 3: August 7, 2024 (Wednesday)

8:00 – 9:00
Kirk Floyd, KDrone Services

1. Map review

9:00 – 10:30
Kirk Floyd, KDrone Services

2. The Expense of using drones
A. Cost of equipment
B. Cost of Insurance
C. Operation Cost
D. Repair of Drones
E. Special Licensing

10:30 – 10:45 Break

10:45 – 12:00
Kirk Floyd, KDrone Services, and Hemendra Kumar, University of Maryland Extension

A. Pix 4D: How to use it

12:00 – 1:00 Catered lunch

1:00 - 2:15
Kirk Floyd, KDrone Services

Introduction to Spray Drone Operation
A. Spray Equipment
B. Support Equipment
C. Flight Software
D. Site Checks
E. Pre-Flight-Checks
F. Emergency Procedures

2:15 - 2:30 Break

2:30 - 3:30
Kirk Floyd, KDrone Services

Spray Drone Operation and Demo
A. Set Up
C. Flight Programing
B. Pre-Flight-Checks
C. Loading
D. Spray Demo

3:30 – 4:00
Kirk Floyd, KDrone Services

Commercial Drone Demo and Fly
A. Demonstration of Commercia Camera Drones.
B. Opportunity to Fly Camera Drone with instructor
C. Free Fly with Tellos.

Day 4: August 8, 2024 (Thursday)

8:30 – 11:00
David Kivioja, Eagle Eye Imaging

8:30 – 9:00 Commercial Drone Regulations
9:00 – 9:30 Drone Artificial Intelligence Spot Spraying

9:30 – 9:45 Break

9:45 -10:15 Drone Plant Health and Other Tools Available to the Grower
10:15 -11:00 Spray Drone Flight Demo

11:00 – 12:00
Edwin Remsberg, Remsburg Inc. and University of Maryland Extension

Photographing Using Drones

12:00 – 12:45 Catered Lunch

12:45 – 1:45
Dr. Long, Penn State Experiment Station

Using land drone for spraying – Live Demo

REGISTRATION INFORMATION

Space is limited to 20 people and is on a first come first served basis. You must be pre-registered to attend.

Cost: $400.00 per person. For all 4 days. Includes lunch.

No refunds after August 1, 2024. Eventbrite fees are not refundable.

To register with a credit card go to: 24Dronesumd.eventbrite.com

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PAYING BY CHECK? Use This Form

Please make checks payable to: "University of Maryland"
Send to: 2024 UMD Extension Drone Training Program, 4240 Folly Quarter Road, Ellicott City, MD 21042

Name(s):_____

Company:_____

Address:_____

City:_____ State:_____ Zip Code: _____

Phone:_____

Email:_____

Payment Amount: _____

Please answer the following questions:

Have you flown a drone? ___ Yes   ___No

Do you have a drone? ___ Yes   ___No

   If yes, which one(s)? _____

Do you have any certifications for flying drones? ___ Yes   ___No

   If yes, which one(s)? _____