

DEVELOPMENT OF AGROBUSINESS INNOVATION IN ALGERIA « InnovAgro »

THE AGRITECH BUSINESS OPPORTUNITIES IN ALGERIA

DronePollin

Autonomous date pollination system.

IDEA
N°10A



TYPE OF OPPORTUNITY: **Autonomous and digital technology**
(drone equipped with optical recognition and precision spraying).

*Related to other sheets

CHALLENGE:

Date pollination currently relies on manual and (semi-)automatic methods using long poles, which consume a lot of time and human resources and result in a lot of pollen being wasted.

IMPACT ON THE VALUE CHAIN:

- Significant reduction in pollination labour costs.
- Improved yield thanks to optimised use of pollen.
- Reduced loss of unpollinated flowers thanks to greater precision.

SOLUTION:

Development of an autonomous system combining drones and advanced technologies for:

- **Optical recognition:** Precise identification of flowers ready for pollination.
- **Targeted spraying:** Precise deposition of pollen on identified flowers.
- **Automated planning:** Generation of flight plans based on geolocation data and images captured by the drone.
- **Pollen optimisation:** Efficient management to avoid wastage.

BENEFITS OR EXPECTED IMPACT

- Significant time savings for producers.
- Reduced manpower requirements, particularly in remote or hard-to-reach areas.
- Increased yields thanks to precise, uniform pollination.
- Saving pollen, reducing the costs associated with its purchase or production.



SOLUTION COMPONENTS

- Drones equipped with high-resolution cameras and precision sprayers.
- Integrated software system for planning and executing autonomous flights.
- Sensors to measure and adjust the quantities of pollen used.
- Technical support and training for end users.

WHO WILL PAY FOR THIS SERVICE OR PRODUCT ?



SUCCESS STORIES

CODEthreeFourteen

The University of the United Arab Emirates has developed an innovative drone technology to automate the pollination of date palms, significantly reducing costs and improving worker safety by limiting the risks associated with manual pollination. Equipped with precise spraying systems and artificial intelligence, these drones ensure efficient pollen distribution, reduce waste and increase productivity.

[CLICK HERE](#)

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Dropcopter

Drones specialising in aerial pollination for agricultural crops.

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BeeHero

Advanced technologies to improve the efficiency of bee pollination.

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PROCESS FOR REALISING THE OPPORTUNITY

PHASE 1:

Analysis of the specific needs of the date industry and technical studies.

PHASE 2:

Development and testing of the drone prototype.

PHASE 3:

Pilot phase on selected farms & POC.

PHASE 4:

User training and commercial launch.

COMPLEXITY



HIGH

LEVEL OF INVESTMENT NEEDED



MEDIUM TO HIGH



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Linked in chain

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