

BUMBLEBEE



Revolutionising Crop Spraying

*Empowering Farmers
Enhancing Yields
Sustaining the Planet*





BUMBLEBEE

SUIND's Bumblebee is a state-of-the-art agricultural spray drone designed to revolutionise traditional cropspraying methods. Built to enhance efficiency, reduce costs, and support sustainable farming practices, Bumblebee simplifies crop management for farmers. With its cutting-edge spray system, intuitive controls, AI-powered navigation system, and rugged design, Bumblebee empowers farmers to optimise their efforts while minimising environmental impact.



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SUCCESS STORY

RUBBER PLANTATION

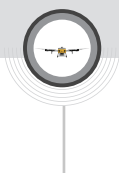
Extensive trials with Harrison's Malayalam Ltd. demonstrated the transformative impact of SUIND's Bumblebee on rubber plantations. Covering over 120 acres across three estates, the drone showcased unparalleled efficiency and effectiveness, setting a new standard in sustainable agriculture.



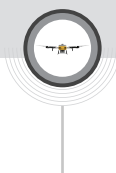
"Using SUIND's spraying drone on our rubber plantation has truly transformed our operations. We saw a remarkable 42% increase in leaf retention, which directly boosted our latex output. It's a game-changer for us, setting a new standard for how we approach crop care."



— HARRISONS MALAYALAM LTD.



Achieved 80% higher leaf retention in the top canopy.



Utilised 60% less chemical compared to traditional methods.

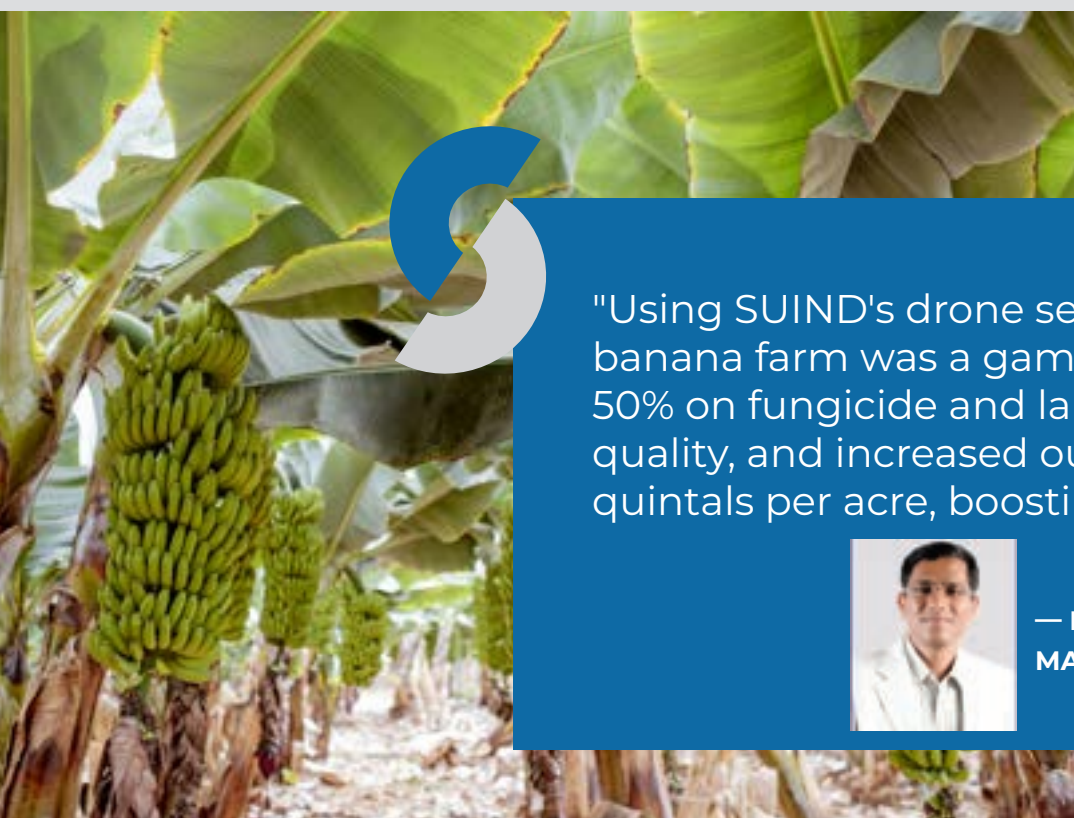


Spraying was 40% faster and approximately 50% cheaper than manual methods.

SUCCESS STORY

BANANA FARMING

Bumblebee has revolutionised banana farming in Maharashtra with its efficient and cost-saving spraying solutions. By reducing chemical usage and labour requirements, it has enabled farmers to enhance crop quality and profitability while simplifying operations.



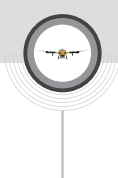
"Using SUIND's drone services on my 30-acre banana farm was a game-changer. We saved 50% on fungicide and labour costs, improved quality, and increased our yield by 25 to 35 quintals per acre, boosting profits significantly."



— DEEPAK PATIL, BANANA GROWER,
MAHARASHTRA



Reduced fungicide and labour costs by 50%.



Increased yield by 25 to 35 quintals per acre.



Improved crop quality, leading to higher market prices.

SPECIFICATION

The Bumblebee combines compact design with advanced AI-driven technology, delivering efficient and precise performance for diverse agricultural needs. With robust spraying capabilities, smart terrain navigation, and user-friendly controls, it's designed to enhance productivity and simplify operations in any environment.

Aircraft



Weight	Fully Loaded: 24.6 kg Empty: 10.12 kg Empty with Battery: 13.38 kg
Max Flight Altitude	100 m
Max Speed	8 m/sec (Manual), 5 m/sec (Auto)
Flight Radius	1,000 m
Endurance	Fully Loaded: 7 mins Mission Weight: 14 mins Empty Load: 20 mins

Spraying System

Tank Capacity	10L
Spray Width	4m-10m
Spraying Speed	10 acres/hour

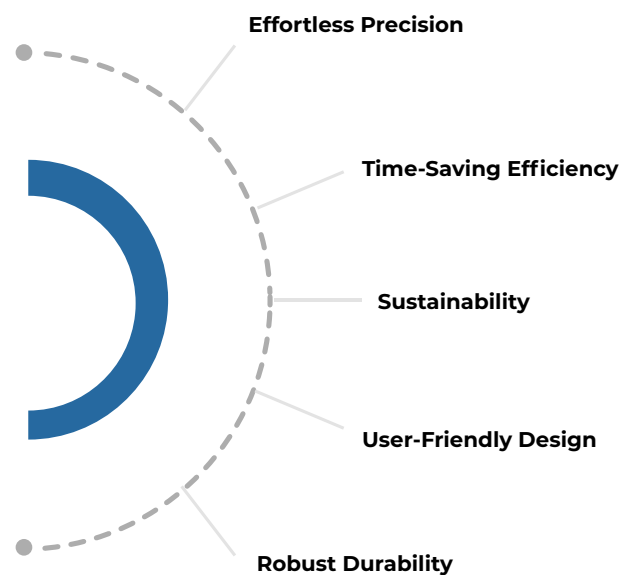
Battery

Capacity	13,000 mAh
Charging Time	At 20A, battery can be charged within 20 mins

TECHNICAL SPECIFICATIONS

Bumblebee is designed to redefine crop spraying with unmatched precision and efficiency. Built to handle demanding agricultural tasks, it combines cutting-edge technology with ease of use, ensuring optimal coverage in record time. Its adaptable spray system, smart navigation, and robust build make it the ideal solution for modern farmers seeking reliability, sustainability, and performance in every flight.

Why Choose Bumblebee?

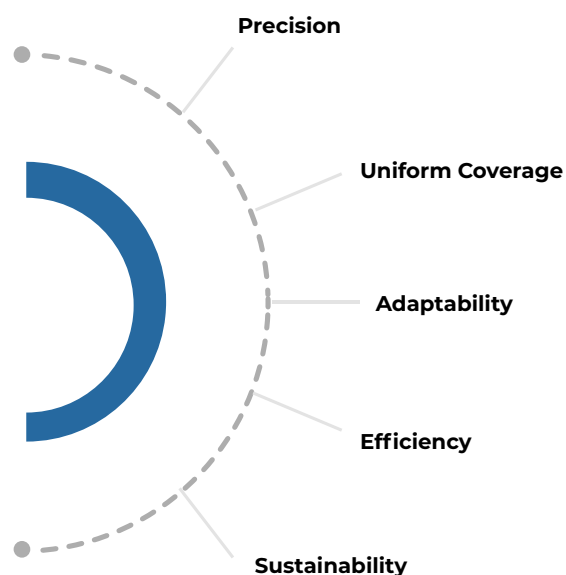


PRECISION SPRAY SYSTEM

Bumblebee's spray system ensures precise, uniform droplet distribution for all crop types. Leveraging the interaction between its advanced atomizer nozzles and the propellers' downwash, it delivers deep penetration, even in dense foliage, minimising waste and enhancing productivity for sustainable farming.



Uniform Precise Effective



ATOMIZED SPRAY SYSTEM

The Bumblebee features an advanced atomized spraying system, tailored to meet diverse agricultural needs. Designed with adaptability and durability in mind, it ensures optimal coverage, reduced wastage, and seamless operation across various crop types and terrains.

PARTICLE SIZE



Centrifugal Nozzle Precision



Effective spray width from 4m to 10m



Adjustable droplet size for versatile application

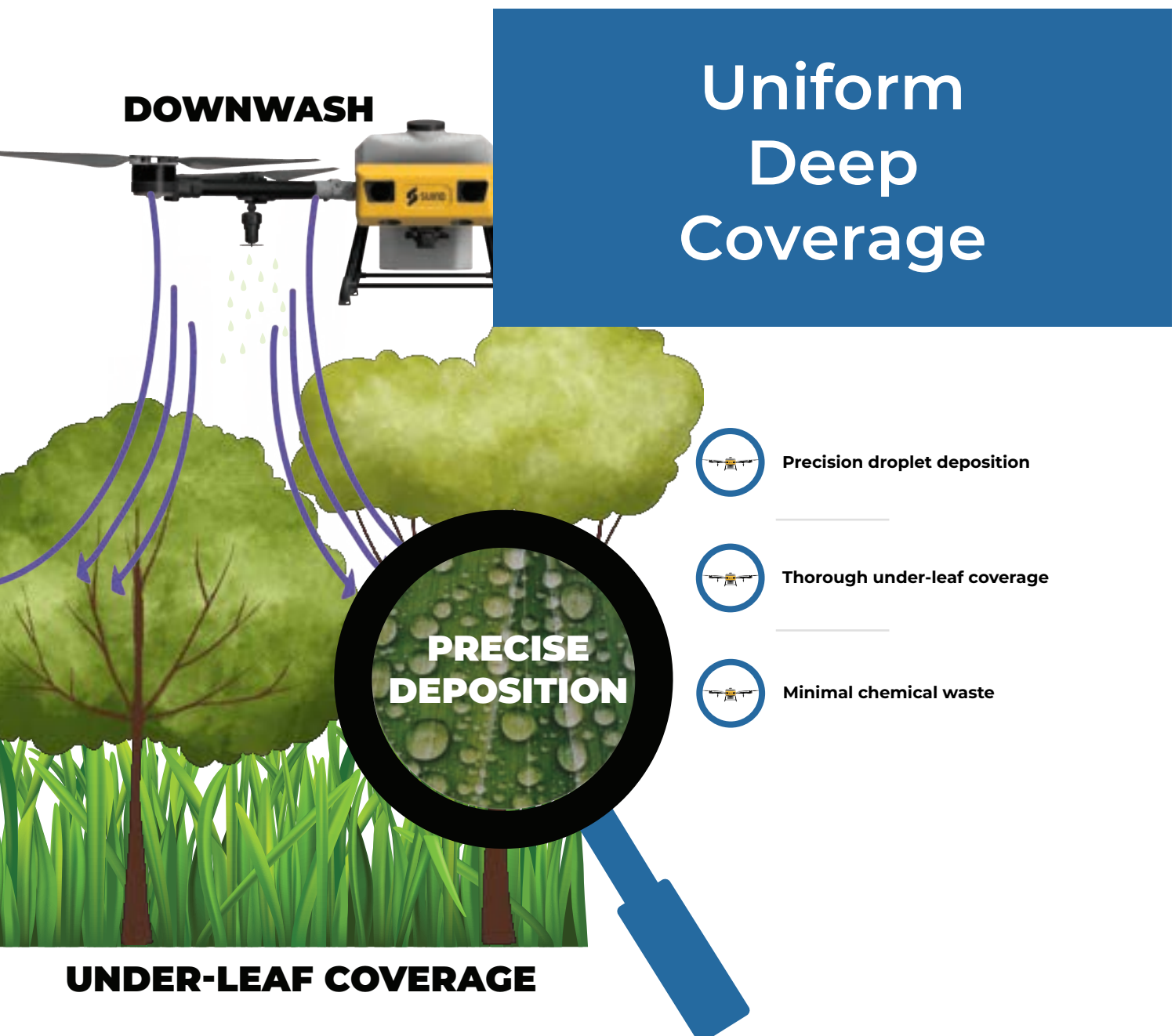


Maximum flow rate of 5 L/min for efficient spraying



THE POWER OF **DOWNWASH**

Bumblebee's spray system harnesses the power of its propeller-generated downwash to revolutionise crop spraying. This strong downward airflow ensures that the atomised droplets penetrate deep into the crop canopy, providing unmatched uniform coverage. It penetrates into every nook and cranny of the plant, ensuring every leaf and surface is treated effectively.



BUILT TO LAST

Bumblebee's spray system is engineered for versatility and durability, designed to withstand the harsh effects of various agricultural chemicals. From gaskets to flowmeters, every component is meticulously crafted to handle insecticides, fungicides, herbicides, fertilizers, plant growth regulators, oils, spreaders, and disinfectants. Rigorous testing ensures compatibility and long-lasting performance in all agricultural scenarios.

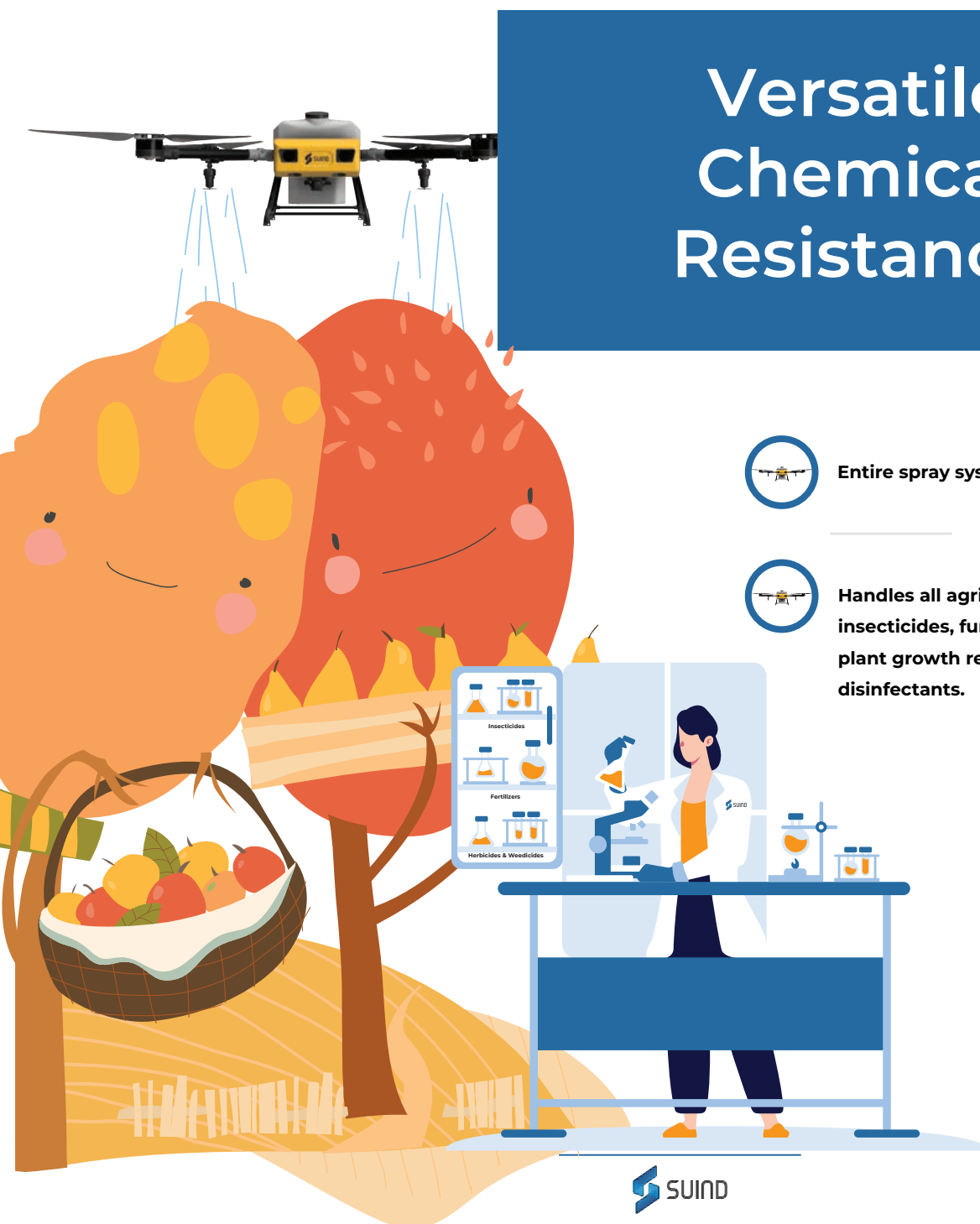
Versatile Chemical Resistance



Entire spray system resists chemical wear & tear



Handles all agricultural chemicals, including insecticides, fungicides, herbicides, fertilizers, plant growth regulators, oils, spreaders, and disinfectants.

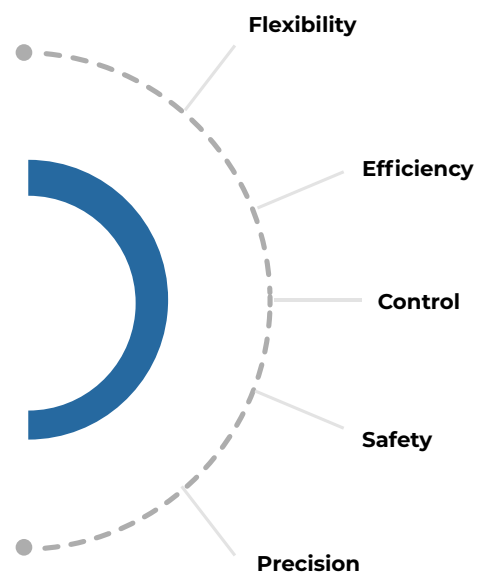


INTELLIGENT FLIGHT MODES

Bumblebee's intelligent flight modes are designed for safe and seamless operations in diverse agricultural landscapes. With advanced obstacle avoidance and terrain-following capabilities, these modes ensure uninterrupted performance even in complex environments. Farmers can rely on precise navigation and adaptability to achieve maximum efficiency.

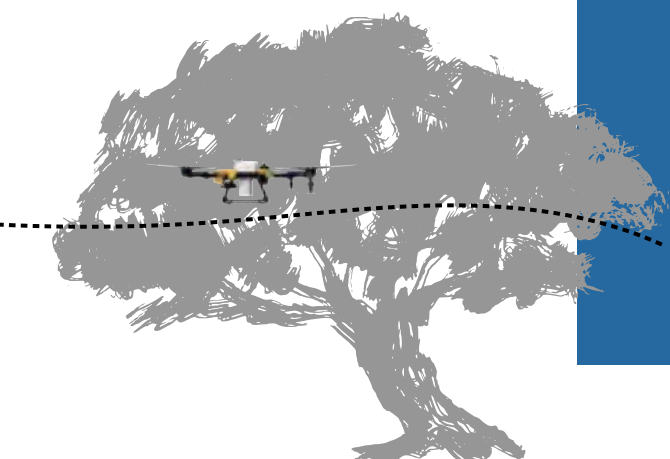


Safe
Smart
Adaptive



CUSTOM FLIGHT MODES

Bumblebee is equipped with intelligent obstacle avoidance modes that ensure safe and efficient operation in challenging environments. Designed to adapt to diverse terrains, these flight modes enhance precision and reliability, enabling uninterrupted missions with minimal intervention.



Obstacle Avoidance Mode

MANEUVERS AROUND OBSTACLES



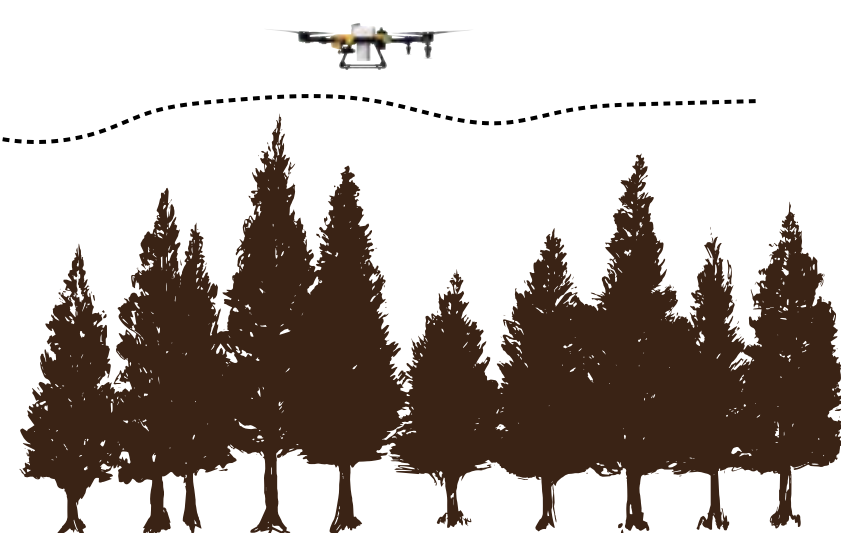
T1: Maneuvers around obstacles



T2: Navigates above obstacles



Dynamic adaptability to terrain

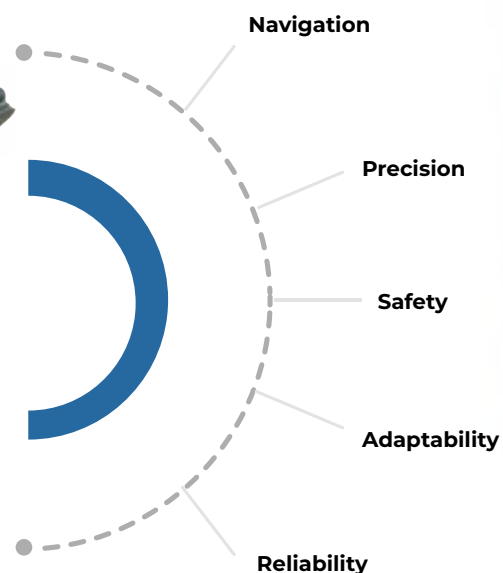


NAVIGATES ABOVE OBSTACLES

SEEING BEYOND LIMITS

Bumblebee's intelligent flight modes are designed for safe and seamless operations in diverse agricultural landscapes. With advanced obstacle avoidance and terrain-following capabilities, these modes ensure uninterrupted performance even in complex environments. Farmers can rely on precise navigation and adaptability to achieve maximum efficiency.

Aware
Adaptive
Accurate



VISION SYSTEM

Bumblebee's vision system features cutting-edge sensors and cameras that enable real-time obstacle detection and terrain adaptation. Designed for precision agriculture, it ensures accurate navigation and safe operation, even in complex and challenging environments.

Real-Time Awareness



Features 4 cameras for environment sensing



Real-time obstacle detection and terrain adaptation



Ensures precise navigation in diverse landscapes

TERRAIN FOLLOWING

Terrain following is critical for achieving uniform spray coverage, especially in farms with uneven terrain or those on hillsides. Bumblebee's advanced system maintains centimeter-level accuracy above crops by leveraging real-time, detailed terrain mapping. This ensures consistent spray application, regardless of field topography, maximising efficiency and minimising waste.



Adaptive Spray Technology



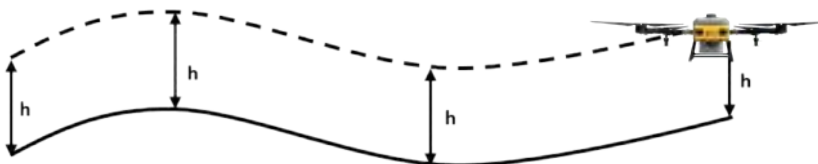
Ensures uniform spray distance



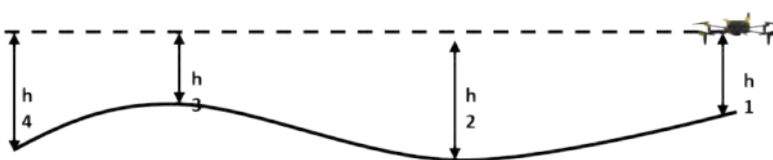
Adapts to uneven terrain, including hillsides



Real-time mapping delivers centimeter accuracy



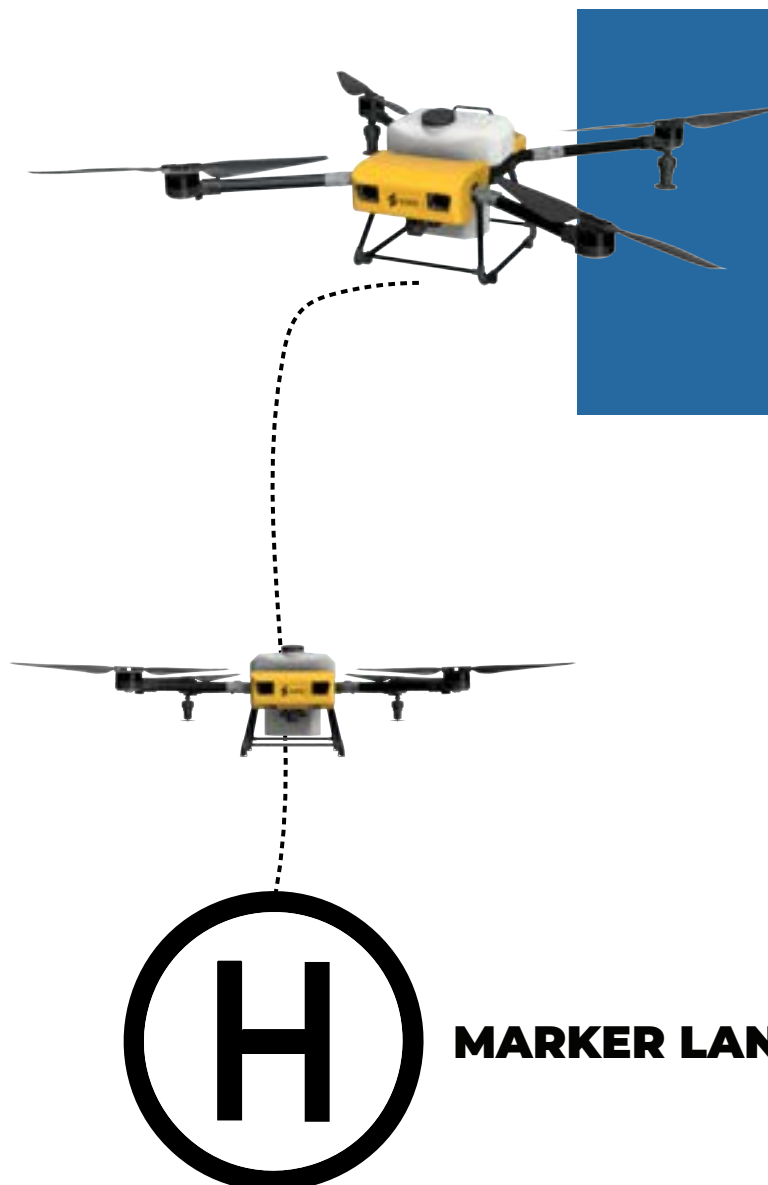
UAV with terrain-following



UAV without terrain-following

PRECISE LANDING

Bumblebee's marker landing system is a cutting-edge feature designed for unmatched precision. It uses predefined markers to ensure the drone lands accurately, even in complex terrains or limited spaces. This system not only enhances operational efficiency and safety but also minimizes the risk of errors, making it ideal for repeated agricultural tasks or delicate environments.



Perfect Touchdown Everytime

-  Ensures pinpoint landing accuracy
-  Reduces risk of misalignment
-  Reduces landing errors

MARKER LANDING

MISSION PLANNING

Mission planning with Bumblebee is effortless and intuitive. Forget the hassle of pre-mapping obstacles or terrain—simply trace the field boundaries on the interface or upload pre-gathered field geometries. Bumblebee's AI navigation suite handles terrain following and obstacle avoidance seamlessly, allowing you to focus on precision and efficiency. From selecting mission parameters to adjusting spray settings, the process is tailored to ensure optimal coverage and sustainable farming practices.

Mission Planning Simplified



No pre-mapping of obstacles or terrain needed



Easily trace fields or upload geometries



AI-powered navigation simplifies the process

PAYLOAD CAPACITY

Bumblebee is designed to redefine efficiency in agricultural spraying. Its AI-driven compact design ensures quick startup, minimal downtime, and seamless adaptability to complex terrains. Despite its compact size, Bumblebee excels in covering large areas efficiently, reducing concerns about its 10L payload. The result is maximum coverage with minimal resource usage, making it ideal for farms of all scales.



Capability Beyond Limits



Covers up to 1 acre in just 7 minutes



10L capacity for chemicals and oils



Reduces downtime with efficient operations



HIGH-PERFORMANCE BATTERY

Bumblebee is equipped with a robust 13,000 mAh battery, ensuring consistent performance and efficiency. Designed for durability and quick recharging, it supports long-lasting operations, even in demanding agricultural environments.

13,000 mAh Battery



Supports over 300 charge cycles



Dual-battery charging in just 15 minutes



Long-lasting performance for large-scale tasks

DESIGNED FOR VERSATILITY

The Bumblebee is engineered with a lightweight yet durable design, making it ideal for efficient operations in various agricultural settings. Its compact structure ensures portability and ease of use, while its robust build allows for consistent performance across diverse terrains and conditions.



Lightweight Design

Weighs just 24.6 kg, ensuring easy handling and transportation for seamless operations.



High Altitude Capability

Operates effectively up to 100 meters, covering crops with precision at varying heights.



Wide Operational Range

Covers up to 1,000 meters per mission, delivering efficiency across vast agricultural fields.



Versatile Configurations

Weighs 10.12 kg when empty, 13.38 kg with the battery, and 24.6 kg when fully loaded with a 10L filled tank



WHY BUMBLEBEE DELIVERS MORE

While many agricultural drones offer basic spraying capabilities, SUIND's Bumblebee goes far beyond the standard. It's not just a drone—it's an intelligent spraying system built for real-world farming challenges. The result? Higher yields, reduced costs, and sustainable farming—making Bumblebee a clear step ahead of conventional drones.

Feature	Typical Drone	SUIND Bumblebee
Spray Coverage	~4 acres/hour	Up to 10 acres/hour
Spray Width	3-5 meters	4m-10m (adjustable)
Chemical Usage	Higher wastage	Up to 60% savings
Obstacle Avoidance	Basic or none	Dual intelligent modes (T1 & T2)
Terrain Following	Limited or manual	Real-time auto-adjust with cm accuracy
Vision System	1 camera or none	4-camera real-time obstacle detection
Payload Capacity	5-8 L	10 L
Flight Endurance	5-10 minutes	20 mins based on load
Battery Recharge Time	60-90 minutes	20 minutes (dual-battery system)
Ease of Operation	Needs pre-mapping	Intuitive interface
Cost Efficiency	High operational costs	Up to 50% cheaper than manual spraying

SCAN TO EXPLORE MORE

Want to know about pricing, warranty, and after-sales support?

Scan the QR code to get detailed insights on costs, service plans, and exclusive benefits.



Can't scan the QR code?

Visit: www.suind.com/block-your-bumblebee-now



AI TRANSFORMING AGRICULTURE

Effortless Efficiency for Farmers
Superior Coverage for Crops

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