

ANMD-MRS29-281 · Smart Farming & Precision Agriculture

Precision Sprayers

A Global Sustainability Due Diligence & Market Research Study

History 2020–2024 · Base Year 2025 · Forecast 2025–2032 · Outlooks 2035 / 2040 / 2050 · Currency US\$

WHY THIS REPORT

Precision sprayers use sensing, computer vision and individual-nozzle control to place crop-protection inputs exactly where they are needed, replacing wasteful broadcast spraying. This decision-grade study sizes the global market three ways — value, volume and hectares treated — across the report’s segmentation axes, seven regions and four scenarios to 2032, with outlooks to 2050.

SUSTAINABILITY & SDG IMPACT — THE ANMD LENS

Sustainability is this report’s backbone, not an afterthought. Beyond productivity, precision sprayers deliver measurable input savings, resource efficiency and lower environmental footprint, while data-driven precision strengthens the natural-capital story.

Mapped Sustainable Development Goals:

SDG 2 Zero Hunger	SDG 6 Clean Water	SDG 7 Affordable & Clean Energy	SDG 13 Climate Action	SDG 15 Life on Land
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Measurable sustainability outcomes assessed:

- Chemical-input reduction of up to 90% versus broadcast spraying
- Reduced run-off, soil and water contamination
- Lower input cost and improved weed-control efficacy
- Equipment embodied carbon and end-of-life as material risks

Framework alignment: Double materiality mapped to GRI, SASB, ISSB, TCFD, TNFD, CSRD and the EU Taxonomy, with greenwashing and SDG-washing screens applied throughout.

WHAT'S INSIDE AT A GLANCE

53 Chapters	9 Report Parts	7 Regions Covered	40+ Country Markets
2025–32 Forecast Horizon	4 Forward Scenarios	25+ Companies Profiled	5 SDGs Mapped

REPORT COVERAGE

Geographic scope: North America, Europe, Asia Pacific, Latin America, Africa, Middle East and Rest of World — with named country intelligence. North America commercial leader ; Europe scaling on regulation ; Asia Pacific scale engine.

MARKET OVERVIEW

From broadcast spraying to plant-level precision — where every droplet lands only where it is needed.

Precision spraying is moving from early adopters to mainstream row-crop and specialty use. Demand is driven by the convergence of input-cost pressure, herbicide-resistance and tightening pesticide regulation, supported by maturing incentives across North America, Europe and Asia Pacific. The market is read three ways — value, units shipped and hectares treated — and forecast under conservative, base, accelerated and disruption scenarios, with every projection resolved to the 2025 base year and each region reported separately rather than folded into Rest of World.

- North America leads early commercialisation, anchored by the United States and Canada, where see-and-spray adoption, large row-crop acreage and custom-applicator networks are most advanced.
- Europe is scaling on regulation, with Germany, France and the Netherlands combining strict pesticide-reduction targets with strong precision-equipment supply.
- Asia Pacific is accelerating, supported by China, India, Japan and Australia, where drone spraying and labour-saving drivers are strongest.
- System type and application segment the value, across see-and-spray, variable-rate and drone sprayers, and across row-crop, specialty and orchard / vineyard use cases, each with distinct economics.
- Input savings are the differentiator, reduced chemical use plus lower cost per hectare — and increasingly resistance management — underpin returns that conventional broadcast spraying cannot match.

REGIONAL OUTLOOK

Across the seven reporting regions, the report separates early commercialisation leaders from high-growth and emerging markets, profiling named country sub-markets, policy regimes and project pipelines in each. North America and Europe anchor near-term adoption; Asia Pacific scales on food security and labour drivers; while Latin America, Africa and the Middle East are assessed on their own merits — for productivity, water security and rural development — rather than aggregated away.

Region	Stage	Lead Markets & Drivers
North America	Commercial leader	United States, Canada — large acreage, precision-ag adoption, dealer & agronomy networks
Europe	Scaling on regulation	Germany, France, Netherlands — input-reduction rules, CAP linkage, equipment supply
Asia Pacific	Scale engine	China, India, Japan, Australia — food security, labour decline, broadacre & drone adoption
Latin America	Emerging	Brazil, Argentina — large-scale row crops, agribusiness integration
Africa	Frontier	South Africa, Kenya, Morocco — food security, smallholder digitisation, blended finance
Middle East	Frontier	Saudi Arabia, UAE, Israel — water security, controlled-environment & agtech investment

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
<ul style="list-style-type: none"> • Chemical-input cost & price pressure • Herbicide resistance & resistance management • Tightening pesticide & runoff regulation • Labour scarcity & application-efficiency gains • Computer-vision, GNSS & variable-rate advances 	<ul style="list-style-type: none"> • Upfront equipment & retrofit CAPEX • Detection accuracy in variable field conditions • Connectivity & data-integration gaps • Agronomic-validation & adoption inertia • Service, calibration & support-network limits

SEGMENTATION SNAPSHOT

By System Type	See-and-spray · variable-rate · drone sprayers · self-propelled smart · retrofit kits
By Component	Spray booms · nozzles · cameras · flow controllers · GNSS · tanks
By Application	Row-crop farms · custom applicators · specialty growers · cooperatives
By End User	Row-crop farms · custom applicators · specialty growers · cooperatives
By Business Model	Equipment purchase · SaaS · lease · managed-service
By Deployment	Row crops · orchard · vineyard · specialty · pasture

TABLE OF CONTENTS — PARTS & CHAPTERS

The full report is organised into nine parts across 53 chapters, listed below. Detailed sub-headings, country tables and directories are provided in the full report.

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- › Chapter 3. Executive Intelligence and Decision Dashboard
- › Chapter 4. Strategic Findings, Materiality and Investment Verdict Preview

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- › Chapter 7. Global Market Size and Forecast, 2020–2032
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- › Chapter 53. Reference Annexes

COMPETITIVE & INVESTMENT SNAPSHOT

The competitive field spans precision-spray pioneers, established equipment manufacturers, and agtech innovators. Profiled players include John Deere / Blue River, Bosch BASF / One Smart Spray, CNH / Raven, Greeneye Technology and AGCO. Deal activity — partnerships, technology licensing and demonstration programmes — signals a market consolidating around bankable, repeatable designs.

Representative players profiled in the full report:

Deere & Company / Blue River Technology, Inc. · Bosch BASF Smart Farming (One Smart Spray) · CNH Industrial N.V. / Raven Industries, Inc. · Greeneye Technology Ltd · AGCO Corporation · and 20+ further profiled players across the value chain.

Investment intelligence: venture, growth, infrastructure, development, climate and blended finance, green bonds and sustainability-linked instruments — culminating in a bankability assessment and a Go / No-Go / Conditional-Go investment verdict.

KEY QUESTIONS THIS REPORT ANSWERS

- ? How large is the global precision sprayers market, and how fast will it grow to 2032?
- ? Which regions, countries and segments offer the strongest risk-adjusted opportunity?
- ? How do precision-agriculture economics change returns versus conventional methods?
- ? Who leads, and where is the competitive and patent white space?
- ? Is the investment case bankable — and under what conditions?
- ? How does the technology align with the SDGs and emerging disclosure regulation?

WHY ANMD — THE DIFFERENCE

Most market studies stop at units and revenue. This report is built as a sustainability due diligence instrument — fusing market sizing with ESG, SDG, climate, water and natural-capital intelligence and a decision-ready bankability verdict in a single architecture.

- **Triangulated sizing** — every market read three ways so value, volume and area views reconcile rather than conflict.
- **Region-honest forecasting** — Latin America, Africa and the Middle East reported in full, never hidden inside Rest of World, every forecast resolved to the 2025 base year.
- **Integrated evidence base** — company, patent and project databases linked to the analysis, with published-filing patents and FTO treated as an indicator, not a legal conclusion.
- **No-fabrication discipline** — every estimate carries a data-confidence rating and disclosed sources; gaps are flagged for further diligence, never filled with invented numbers.
- **Anti-greenwashing rigour** — SDG-washing and greenwashing screens plus claim-substantiation checks built into the ESG and project analysis.
- **Decision-first structure** — 9 Parts and 53 Chapters culminating in stakeholder playbooks and a clear Go / No-Go / Conditional-Go investment verdict.

WHO SHOULD BUY THIS REPORT

Investors, manufacturers, growers, agronomists, cooperatives, policymakers, lenders, and corporate strategy and ESG teams — alongside strategic corporate planners and decision-makers.

Access the Full Report

The complete report delivers all 53 chapters in full, with every sub-heading, country table, company and patent directory, forecast model and due diligence checklist.

Purchase at www.anewmarketdynamics.com · Standard & Premium licences · Single-Site (SSL) and Global-Site (GSL) options at checkout.

Want the Complete Detailed Table of Contents?

This prospectus lists the nine parts and 53 chapters. The complete detailed table of contents — every sub-heading, country table, exhibit, company and patent directory and annex — is available on request to registered users. To receive it, register with your official company email at www.anewmarketdynamics.com. The full detailed table of contents will be sent directly to your registered company email address.