Agricultural Robots Market by Robot Type (Unmanned Aerial Vehicles, Milking Robots), Application (Harvest Management, Dairy & Livestock Management), Offering (Hardware, Software), End Use, Farming Environment, Farm Size, and Region - Global Forecast to 2030

Market Report | 2025-11-07 | 375 pages | MarketsandMarkets

AVAILABLE LICENSES:

- Single User $4950.00
- Multi User $6650.00
- Corporate License $8150.00
- Enterprise Site License $10000.00

Report description:

The global market for agricultural robots is estimated to be valued at USD 17.73 billion in 2025. It is projected to reach USD 56.26 billion by 2030, at a CAGR of 26.0% during the forecast period. The adoption of artificial intelligence (AI) in agricultural robots is accelerating the shift toward data-driven and efficient farming operations. AI enables robots to perform complex tasks such as seeding, crop monitoring, weeding, and harvesting with precision and minimal human intervention. By leveraging machine learning and computer vision, these systems optimize resource utilization, improve yield prediction, and reduce operational costs. The integration of AI with autonomous tractors and drones enhances decision-making and scalability across large farms. As technology costs decline, AI-driven agricultural robots are becoming a strategic enabler for sustainable, productive, and resilient agri-business operations.

https://mnmimg.marketsandmarkets.com/Images/agricultural-robot-market-new-overview.webp

"The unmanned aerial vehicles segment holds the highest market share in the robot type segment of the agricultural robots market."
The unmanned aerial vehicle (UAV) segment leads the agricultural robots market in terms of market share due to its versatility and efficiency in modern farming. UAVs, also known as drones, are widely used for crop monitoring, field mapping, precision spraying, and soil analysis. Equipped with high-resolution cameras, multispectral sensors, and AI-enabled analytics, they provide real-time insights into crop health, pest infestations, and irrigation needs. Their ability to cover large areas quickly and

cost-effectively reduces labor requirements while enhancing productivity. The growing demand for precision agriculture, data-driven decision-making, and sustainable farming practices is driving the rapid adoption of UAVs across global agricultural operations.

"The field farming application segment is projected to grow at a significant rate during the forecast period."

The field farming application segment in the agricultural robots market is projected to grow at a significant rate during the forecast period, driven by increasing adoption of automation and precision agriculture practices. Robots and autonomous machinery are increasingly deployed for activities such as seeding, planting, weeding, irrigation, and harvesting across large-scale farms. These technologies improve operational efficiency, reduce labor dependency, and optimize resource utilization, including water, fertilizers, and pesticides. Advances in AI, machine learning, and IoT-enabled sensors further enhance accuracy and decision-making. The growing demand for higher crop yields and sustainable farming practices is expected to drive robust growth in this segment globally.

North America is expected to hold a significant share of the agricultural robots market.

North America is expected to hold a significant share in the agricultural robots market due to early adoption of advanced technologies and well-established precision farming practices. The region benefits from strong investment in agrarian automation, supportive government initiatives, and high awareness of AI- and robotics-driven solutions. Farmers are increasingly using autonomous tractors, drones, and AI-enabled robots to enhance productivity, optimize resource utilization, and reduce labor dependency. Additionally, the presence of key market players and continuous innovation in robotics and IoT technologies further strengthen North America's position as a leading region in the adoption of smart and sustainable agricultural solutions.

In-depth interviews have been conducted with chief executive officers (CEOs), Directors, and other executives from various key organizations operating in the agricultural robots market:

- By Company Type: Tier 1 - 25%, Tier 2 - 45%, and Tier 3 - 30%
- By Designation: Directors- 20%, Managers - 50%, Executives- 30%
- By Region: North America - 25%, Europe - 30%, Asia Pacific - 20%, South America - 15% and Rest of the World -10%

Prominent companies in the market include Deere & Company (US), DJI (China), CNH Industrial NV (Netherlands), AGCO Corporation (US), Delaval (Sweden), Trimble Inc. (US), Boumatic Robotic (Netherlands), Lely (Netherlands), AgJunction (US), AgEagle Aerial Systems (US), Yanmar Co. (Japan), Deepfield Robotics (Germany), Ecorobotix (Switzerland), Harvest Automation (US), and Naio Technologies (France).

Other players include Robotics Plus (Zealand), Kubota Corporation (Japan), Harvest Cro Robotics (US), Autonomous Tractor Corporation (US), Clearpath Robotics (Canada), Dronedeploy (US), Agrobots (Spain), FFRobotics (Israel), Fullwood Joz (UK), and Monarch Tractors (US).

Research Coverage:

This research report categorizes the agricultural robots market by robot type (unmanned aerial vehicles/drones, milking robotics, driverless tractor, automated harvesting robots), (harvest management, field & crop management, dairy & livestock management, inventory & supply chain management, soil & irrigation management, weather tracking & forecasting), end use (farm produce, dairy & livestock), farming environment (indoor, outdoor), offering (hardware, software, services), farm size (small-sized farm, mid-sized farms, large sized farms) and region (North America, Europe, Asia Pacific, South America, and Rest of the World). The scope of the report encompasses detailed information regarding the major factors, including drivers, restraints, challenges, and opportunities, that influence the growth of the agricultural robots market. A detailed analysis of key industry players has been conducted to provide insights into their business overview, services, key strategies, contracts, partnerships, agreements, new service launches, mergers and acquisitions, and recent developments related to the agricultural robots market. This report provides a competitive analysis of emerging startups in the agricultural robots market ecosystem. Furthermore, the study also covers industry-specific trends, including technology analysis, ecosystem and market mapping, patent analysis, and regulatory landscape, among others.

Reasons to buy this report:

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue

numbers for the overall agricultural robots and the subsegments. This report will help stakeholders understand the competitive landscape and gain valuable insights to better position their businesses and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market, providing them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights into the following pointers:

- Analysis of key drivers (increasing demand for food), restraints (supply chain disruption), opportunities (technological innovations), and challenges (regulatory barriers) influencing the growth of the agricultural robots market.
- New product launch/Innovation: Detailed insights on research & development activities and new product launches in the agricultural robots market.
- Market Development: Comprehensive information about lucrative markets - the report analyzes the agricultural robots market across varied regions.
- Market Diversification: Exhaustive information about new services, untapped geographies, recent developments, and investments in the agricultural robots market.
- Competitive Assessment: In-depth assessment of market shares, growth strategies, product offerings, brand/product comparison, and product footprints of leading players such as Deere & Company (US), DJI (China), CNH Industrial NV (Netherlands), AGCO Corporation (US), Delaval (Sweden), and other players in the agricultural robots market.

Table of Contents:

1 INTRODUCTION 36
1.1 STUDY OBJECTIVES 36
1.2 MARKET DEFINITION 36
1.3 STUDY SCOPE AND SEGMENTATION 37
1.3.1 MARKETS COVERED AND REGIONAL SCOPE 37
1.3.2 INCLUSIONS AND EXCLUSIONS 38
1.3.3 YEARS CONSIDERED 38
1.3.4 CURRENCY CONSIDERED 39
1.3.5 UNIT CONSIDERED 39
1.3.6 STAKEHOLDERS 39
1.4 SUMMARY OF STRATEGIC CHANGES IN MARKET 39
2 RESEARCH METHODOLOGY 40
2.1 RESEARCH DATA 40
2.1.1 SECONDARY DATA 41
2.1.1.1 List of major secondary sources 41
2.1.1.2 Key data from secondary sources 42
2.1.2 PRIMARY DATA 42
2.1.2.1 Key data from primary sources 43
2.1.2.2 Key primary participants 43
2.1.2.3 Breakdown of primary interviews 43
2.1.2.4 Key industry insights 44
2.2 MARKET SIZE ESTIMATION 44
2.2.1 BOTTOM-UP APPROACH 45
2.2.2 TOP-DOWN APPROACH 45
2.2.3 BASE NUMBER CALCULATION 47
2.3 MARKET FORECAST APPROACH 47
2.3.1 SUPPLY SIDE 47
2.3.2 DEMAND SIDE 48
2.4 DATA TRIANGULATION 48

2.5 FACTOR ANALYSIS 49
2.6 RESEARCH LIMITATIONS AND RISK ASSESSMENT 49
3 EXECUTIVE SUMMARY 50
3.1 KEY INSIGHTS AND MARKET HIGHLIGHTS 50
3.2 KEY MARKET PARTICIPANTS: SHARE INSIGHTS AND STRATEGIC DEVELOPMENTS 51
3.3 DISRUPTIVE TRENDS SHAPING MARKET 52
3.4 HIGH-GROWTH SEGMENTS & EMERGING FRONTIERS 53
3.5 SNAPSHOT: GLOBAL MARKET SIZE, GROWTH RATE, AND FORECAST 54
4 PREMIUM INSIGHTS 55
4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN AGRICULTURAL ROBOTS MARKET 55
4.2 AGRICULTURAL ROBOTS MARKET, BY OFFERING AND REGION 56
4.3 AGRICULTURAL ROBOTS MARKET, BY FARM SIZE 56
4.4 AGRICULTURAL ROBOTS MARKET, BY APPLICATION 57
4.5 AGRICULTURAL ROBOTS MARKET, BY END USE 57
4.6 AGRICULTURAL ROBOTS MARKET, BY FARMING ENVIRONMENT 58
4.7 AGRICULTURAL ROBOTS MARKET, BY COUNTRY 58
5 MARKET OVERVIEW 59
5.1 INTRODUCTION 59
5.2 MACROECONOMIC INDICATORS 59
5.2.1 REDUCTION IN ARABLE LAND 59
5.2.2 RAPID DIGITALIZATION 60
5.2.3 LIVESTOCK POPULATION TRENDS 60
5.3 MARKET DYNAMICS 62
5.3.1 INTRODUCTION 62
5.3.2 DRIVERS 62
5.3.2.1 Advancement in technologies 62
5.3.2.2 Sustainability goals accelerate adoption of agricultural robots 63
5.3.2.3 Surging labor costs and labor shortages 63
5.3.2.4 Increasing number of dairy, poultry, and swine farms 64
5.3.3 RESTRAINTS 65
5.3.3.1 High initial cost of automation for small farms 65
5.3.3.2 Technological barriers pertaining to fully autonomous robots 65
5.3.3.3 Complex and unstructured farm environments 65
5.3.3.4 Lack of training activities in operating agricultural robots 66
5.3.4 OPPORTUNITIES 66
5.3.4.1 Untapped market potential and scope for automation in agriculture 66
5.3.4.2 Controlled Environment Agriculture (CEA) to drive adoption of agricultural robots 67
5.3.4.3 High adoption of aerial data collection tools in agriculture 67
5.3.4.4 Adoption of software, data, and service-based business models 68
5.3.5 CHALLENGES 68
5.3.5.1 Lack of standardization and regulation of agricultural robot technologies globally 68
5.3.5.2 High cost and complexity of fully autonomous robots 69
5.3.5.3 Integration challenges with existing farm equipment 69
5.3.5.4 Lack of technical knowledge among farmers 70
5.4 UNMET NEEDS AND WHITE SPACES 70
5.4.1 UNMET NEEDS IN AGRICULTURAL ROBOTS MARKET 70
5.4.2 WHITE SPACE OPPORTUNITIES 71

5.5 INTERCONNECTED MARKETS AND CROSS-SECTOR OPPORTUNITIES 71
5.5.1 INTERCONNECTED MARKETS 71
5.5.2 CROSS-SECTOR OPPORTUNITIES 72
5.6 EMERGING BUSINESS MODELS AND ECOSYSTEM SHIFTS 72
5.6.1 EMERGING BUSINESS MODELS 72
5.6.2 ECOSYSTEM SHIFTS 72
5.7 STRATEGIC MOVES BY TIER-1/2/3 PLAYERS 73
5.7.1 KEY MOVES AND STRATEGIC FOCUS 73
6 INDUSTRY TRENDS 74
6.1 PORTER'S FIVE FORCES ANALYSIS 74
6.1.1 THREAT OF NEW ENTRANTS 75
6.1.2 THREAT OF SUBSTITUTES 75
6.1.3 BARGAINING POWER OF SUPPLIERS 75
6.1.4 BARGAINING POWER OF BUYERS 75
6.1.5 INTENSITY OF COMPETITIVE RIVALRY 75
6.2 VALUE CHAIN ANALYSIS 76
6.2.1 RESEARCH AND PRODUCT DEVELOPMENT 76
6.2.2 DEVICE AND COMPONENT MANUFACTURERS 76
6.2.3 SYSTEM INTEGRATORS 77
6.2.4 SERVICE PROVIDERS 77
6.2.5 END USERS 77
6.2.6 POST-SALES SERVICES 77
6.3 ECOSYSTEM ANALYSIS 78
6.3.1 DEMAND SIDE 78
6.3.2 SUPPLY SIDE 78
6.4 PRICING ANALYSIS 80
6.4.1 AVERAGE SELLING PRICE, BY KEY PLAYER 80
6.4.2 AVERAGE SELLING PRICE TREND, BY REGION 82
6.5 TRADE ANALYSIS 83
6.5.1 EXPORT SCENARIO OF HS CODE 8433 83
6.5.2 IMPORT SCENARIO OF HS CODE 8433 85
6.6 KEY CONFERENCES AND EVENTS, 2024-2026 86
6.7 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS 87
6.8 INVESTMENT AND FUNDING SCENARIO 88
6.9 CASE STUDY ANALYSIS 89
6.9.1 KUBOTA-KILTER COLLABORATION ON AX-1 ULTRA-PRECISE WEEDING ROBOT 89
6.9.2 ENHANCING SOFT-FRUIT HARVESTING THROUGH PLATFORM-AGNOSTIC ROBOTICS INTEGRATION 89
6.9.3 AIGEN'S ELEMENT GEN2 ROBOTIC CREW FOR WEED CONTROL 90
?
6.10 IMPACT OF 2025 US TARIFF - AGRICULTURAL ROBOTS MARKET 90
6.10.1 INTRODUCTION 90
6.10.2 KEY TARIFF RATES 91
6.10.3 PRICE IMPACT ANALYSIS 91
6.10.4 IMPACT ON COUNTRY/REGION 91
6.10.4.1 US 91
6.10.4.2 Europe 92
6.10.4.3 Asia Pacific 92

6.10.5 IMPACT ON END-USE INDUSTRIES 92
7 STRATEGIC DISRUPTION THROUGH TECHNOLOGY, PATENTS, DIGITAL, AND AI ADOPTION 93
7.1 KEY EMERGING TECHNOLOGIES 93
7.1.1 AI-POWERED COMPUTER VISION & DEEP LEARNING 93
7.1.2 AERIAL-GROUND COLLABORATIVE SYSTEMS (UAV-UGV INTEGRATION) 93
7.1.3 SWARM ROBOTICS 93
7.1.4 RTK GPS & HIGH-PRECISION POSITIONING 94
7.2 COMPLEMENTARY TECHNOLOGIES 94
7.2.1 IOT SENSORS AND SMART FIELD MONITORING SYSTEMS 94
7.2.2 5G CONNECTIVITY AND EDGE COMPUTING 94
7.2.3 CLOUD-BASED FARM MANAGEMENT PLATFORMS 95
7.3 TECHNOLOGY/PRODUCT ROADMAP 95
7.3.1 SHORT-TERM (2025-2027) | FOUNDATION & EARLY COMMERCIALIZATION 95
7.3.2 MID-TERM (2027-2030) | EXPANSION & STANDARDIZATION 96
7.3.3 LONG-TERM (2030-2035+) | MASS COMMERCIALIZATION & DISRUPTION 96
7.4 PATENT ANALYSIS 97
7.4.1 INTRODUCTION 97
7.4.2 METHODOLOGY 97
7.4.3 DOCUMENT TYPE 97
7.4.4 INSIGHTS 98
7.4.5 LEGAL STATUS OF PATENTS 99
7.4.6 JURISDICTION ANALYSIS 99
7.4.7 TOP APPLICANTS 100
7.4.8 LIST OF PATENTS BY DEERE & CO 100
7.5 FUTURE APPLICATIONS 101
7.5.1 AUTONOMOUS SWARM ROBOTICS: SCALABLE FIELD OPTIMIZATION 101
7.5.2 AI-INTEGRATED HARVESTING ROBOTS: PRECISION YIELD OPTIMIZATION 102
7.5.3 SENSOR-EMBEDDED SOIL MONITORING ROBOTS: REAL-TIME FARM DIAGNOSTICS 102
7.5.4 BIODEGRADABLE FIELD ROBOTS: CIRCULAR AGRICULTURE ENHANCEMENT 102
7.5.5 HYBRID AGRO-ROBOTIC SYSTEMS: UAV-UGV INTEGRATION FOR ADVANCED OPERATIONS 103
7.6 IMPACT OF AI/GEN AI ON AGRICULTURAL ROBOTS MARKET 103
7.6.1 TOP USE CASES AND MARKET POTENTIAL 103
7.6.2 BEST PRACTICES IN AGRICULTURAL ROBOT MANUFACTURING 104
7.6.3 CASE STUDIES OF AI IMPLEMENTATION IN AGRICULTURAL ROBOTS MARKET 104
7.6.4 INTERCONNECTED ADJACENT ECOSYSTEMS AND IMPACT ON MARKET PLAYERS 105
7.6.5 CLIENTS' READINESS TO ADOPT GENERATIVE AI IN AGRICULTURAL ROBOTS MARKET 105
7.7 SUCCESS STORIES AND REAL-WORLD APPLICATIONS 105
7.7.1 DEERE & COMPANY - AUTONOMOUS TRACTORS & AI SPRAYING 106
7.7.2 AGCO CORPORATION - AUTONOMOUS FIELD ROBOTS 106
7.7.3 CNH INDUSTRIAL N.V. - SPECIALTY CROP ROBOTS & AUTONOMOUS TRACTORS 106
8 REGULATORY LANDSCAPE 107
8.1 REGIONAL REGULATIONS AND COMPLIANCE 107
8.1.1 GLOBAL STANDARDS FOR AGRICULTURAL MACHINERY 109
8.1.2 NORTH AMERICA 110
8.1.2.1 United States (US) 111
8.1.2.2 Canada 112
8.1.2.3 Mexico 113

8.1.3 EUROPEAN UNION (EU) 113
8.1.4 ASIA PACIFIC 115
8.1.4.1 India 116
8.1.4.2 China 116
8.1.4.3 Australia 117
8.1.5 REST OF THE WORLD 118
8.1.6 INDUSTRY STANDARDS 118
9 CUSTOMER LANDSCAPE & BUYER BEHAVIOR 119
9.1 DECISION-MAKING PROCESS 119
9.2 BUYER STAKEHOLDERS AND BUYING EVALUATION CRITERIA 120
9.2.1 KEY STAKEHOLDERS IN BUYING PROCESS 120
9.2.2 BUYING CRITERIA 120
9.3 ADOPTION BARRIERS & INTERNAL CHALLENGES 121
9.4 MARKET PROFITABILITY 123
9.4.1 REVENUE POTENTIAL 124
9.4.2 COST DYNAMICS 124
9.4.3 MARGIN OPPORTUNITIES BY APPLICATION 124
?
10 AGRICULTURAL ROBOTS MARKET, BY ROBOT TYPE 125
10.1 INTRODUCTION 126
10.2 UNMANNED AERIAL VEHICLES 127
10.2.1 INCREASING DEMAND FOR REAL-TIME CROP MONITORING AND PRECISION SPRAYING TO ENHANCE YIELD TO FUEL MARKET GROWTH 127
10.2.1.1 Fixed-wing drones 130
10.2.1.2 Multi-rotor drones 131
10.2.1.3 Hybrid drones 131
10.3 MILKING ROBOTS 132
10.3.1 LABOR SHORTAGE AND NEED FOR CONSISTENT, HIGH-EFFICIENCY DAIRY OPERATIONS TO DRIVE DEMAND 132
10.3.1.1 Automated Milking Rotary Systems 135
10.3.1.2 Box/Stall Milking Systems 135
10.4 DRIVERLESS TRACTORS 135
10.4.1 DRIVERLESS TRACTORS TO LEAD TO LESS DAMAGE TO SOIL DUE TO AUTOMATED SOFTWARE AND LESS HUMAN ERROR 135
10.4.1.1 Fully Autonomous Tractors 137
10.4.1.2 Semi-autonomous Tractors 138
10.5 AUTOMATED HARVESTING SYSTEMS 138
10.5.1 REDUCTION OF NEED FOR MANUAL LABOR AND INCREASING OPERATIONAL EFFICIENCY TO DRIVE SEGMENT 138
10.5.1.1 Fruit-picking Robots 140
10.5.1.2 Vegetable Harvesting Robots 141
10.6 OTHERS 141
10.6.1 MATERIAL MANAGEMENT ROBOTS 142
10.6.2 SOIL MANAGEMENT ROBOTS 143
10.6.3 CROP MONITORING AND SCOUTING ROBOTS 143
10.6.4 WEEDING AND THINNING ROBOTS 143
10.6.5 PRUNING ROBOTS 144
10.6.6 SPRAYING & IRRIGATION ROBOTS 144
10.6.7 OTHER SPECIALIZED AGRICULTURAL ROBOTS 145
11 AGRICULTURAL ROBOTS MARKET, BY APPLICATION 146

11.1 INTRODUCTION 147
11.2 HARVEST MANAGEMENT 148
11.2.1 HARVEST MANAGEMENT APPLICATIONS TO DRIVE UTILIZATION OF UAV AND AUTOMATED HARVESTING SYSTEMS 148
11.3 FIELD FARMING & CROP MANAGEMENT 150
11.3.1 USAGE OF ROBOTS IN PLOWING AND SEEDING TO YIELD BETTER PRODUCTIVITY 150
11.3.2 PLANTING AND SEEDING 151
11.3.3 MONITORING & SCOUTING 151
11.3.4 FERTILIZATION & NUTRIENT MANAGEMENT 152
11.4 DAIRY & LIVESTOCK MANAGEMENT 152
11.4.1 MILKING ROBOTS TO AUTOMATE MANUAL PROCESSES IN DAIRY FARMS 152
11.5 SOIL & IRRIGATION MANAGEMENT 153
11.5.1 USAGE OF DRONES IN SOIL & IRRIGATION MANAGEMENT TO DRIVE MARKET 153
11.6 INVENTORY & SUPPLY CHAIN MANAGEMENT 154
11.6.1 INVENTORY MANAGEMENT TO STREAMLINE TRACKING AND ORGANIZING OF AGRICULTURAL PRODUCTS AND RESOURCES 154
11.6.2 WEATHER TRACKING & MONITORING 156
11.6.2.1 Demand for real-time weather data to drive robotic field optimization 156
11.7 OTHERS 157
12 AGRICULTURAL ROBOTS MARKET, BY OFFERING 159
12.1 INTRODUCTION 160
12.2 HARDWARE 161
12.2.1 ADOPTION OF PRECISION EQUIPMENT AND REAL-TIME DATA TOOLS TO DRIVE MARKET GROWTH 161
12.2.2 AUTOMATION & CONTROL 163
12.2.3 SENSING & MONITORING 163
12.3 SOFTWARE 164
12.3.1 RISE IN FARM MANAGEMENT, ANALYTICS, AND AI-BASED DECISION TOOLS TO BOOST MARKET GROWTH 164
12.3.2 ON-CLOUD 165
12.3.3 ON-PREMISE 166
12.3.4 AI AND DATA ANALYTICS 166
12.4 SERVICES 167
12.4.1 INCREASING DEPLOYMENT OF LIVESTOCK FARMING DEVICES AND EQUIPMENT 167
12.4.2 SYSTEM INTEGRATION & CONSULTING 169
12.4.3 MANAGED SERVICES 169
13 AGRICULTURAL ROBOTS MARKET, BY FARMING ENVIRONMENT 170
13.1 INTRODUCTION 171
13.2 OUTDOOR 172
13.2.1 ADOPTION OF AGRICULTURAL ROBOTS FOR LIVESTOCK MONITORING AND VARIABLE RATE APPLICATION TO DRIVE MARKET GROWTH 172
13.3 INDOOR 174
13.3.1 USAGE OF ROBOTS IN OPTIMIZING RESOURCE USAGE IN HYDROPONICS TO DRIVE MARKET GROWTH 174
14 AGRICULTURAL ROBOTS MARKET, BY FARM SIZE 176
14.1 INTRODUCTION 177
14.2 SMALL-SIZED FARMS (LESS THAN 100 HECTARES) 178
14.2.1 ADOPTION DRIVEN BY LABOR COST REDUCTION AND PRODUCTIVITY IMPROVEMENT 178
14.3 MID-SIZED FARMS (MORE THAN 100 HECTARES AND LESS THAN 500 HECTARES) 179
14.3.1 ADOPTION DRIVEN BY EFFICIENT RESOURCE MANAGEMENT AND PRECISION FARMING BENEFITS 179
14.4 LARGE-SIZED FARMS (MORE THAN 500 HECTARES) 180

14.4.1 SCALABILITY AND OPERATIONAL EFFICIENCY TO DRIVE MARKET 180
15 AGRICULTURAL ROBOTS MARKET, BY END USE 182
15.1 INTRODUCTION 183
15.2 FARM PRODUCE 184
15.2.1 CEREALS & GRAINS 185
15.2.1.1 Promotion of innovative and technological advancements in cereals & grains to boost market 185
15.2.1.2 Corn 187
15.2.1.3 Wheat 188
15.2.1.4 Rice 188
15.2.1.5 Other Cereals & Grains 189
15.2.2 OILSEEDS & PULSES 189
15.2.2.1 Assistance of robots in post-harvest operations for oilseeds & pulses to drive market 189
15.2.2.2 Soyabeans 191
15.2.2.3 Sunflowers 192
15.2.2.4 Other oilseeds & pulses 192
15.2.3 FRUITS & VEGETABLES 193
15.2.3.1 Revolutionizing traditional farming practices in fruits & vegetables to propel market growth 193
15.2.3.2 Pome fruits 195
15.2.3.3 Citrus fruits 195
15.2.3.4 Berries 196
15.2.3.5 Root & tuber vegetables 196
15.2.3.6 Leafy vegetables 197
15.2.3.7 Other fruits & vegetables 197
15.2.4 OTHERS 198
15.3 DAIRY & LIVESTOCK 199
15.3.1 USAGE OF MILKING ROBOTS IN DAIRY & LIVESTOCK PRODUCE SEGMENT TO DRIVE MARKET 199
16 AGRICULTURAL ROBOTS MARKET, BY REGION 201
16.1 INTRODUCTION 202
16.2 NORTH AMERICA 204
16.2.1 US 213
16.2.1.1 Leveraging unmanned aerial vehicles for improved farming practices to bolster market growth 213
?
16.2.2 CANADA 215
16.2.2.1 Constant enhancements and developments in precision farming practices to drive market growth 215
16.2.3 MEXICO 216
16.2.3.1 Adoption of drones and other smart technologies through government's financial support to drive market 216
16.3 EUROPE 217
16.3.1 FRANCE 225
16.3.1.1 Increasing robotic startups in France for agricultural applications to lead to market growth 225
16.3.2 GERMANY 226
16.3.2.1 Government incentives and ongoing collaborative research projects to propel market growth 226
16.3.3 ITALY 228
16.3.3.1 Usage of latest agricultural sensor technologies in Italy to drive market 228
16.3.4 NETHERLANDS 229
16.3.4.1 Technology-driven economy and focus on sustainable agriculture to boost market 229
16.3.5 UK 230
16.3.5.1 Adopting advanced digital technologies to enhance farming practices in UK 230

16.3.6 REST OF EUROPE 231
16.4 ASIA PACIFIC 233
16.4.1 CHINA 241
16.4.1.1 Increasing government incentives and investments to boost market 241
16.4.2 INDIA 243
16.4.2.1 Increasing government incentives and investments to boost market 243
16.4.3 JAPAN 244
16.4.3.1 Rising adoption of advanced technology in Japan to drive market growth 244
16.4.4 SOUTH KOREA 245
16.4.4.1 Agriculture drones to be used for surveying farms and assessing crop losses 245
16.4.5 AUSTRALIA 246
16.4.5.1 Usage of agricultural drones in different applications to boost demand in Australia 246
16.4.6 REST OF ASIA PACIFIC 247
16.5 SOUTH AMERICA 249
16.5.1 BRAZIL 256
16.5.1.1 Rise in digital agriculture activities to drive market 256
16.5.2 ARGENTINA 258
16.5.2.1 Increase in public-private partnerships for agriculture innovations in Argentina to drive market growth 258
16.5.3 REST OF SOUTH AMERICA 259
16.6 REST OF THE WORLD 260
16.6.1 MIDDLE EAST 268
16.6.1.1 Growth in agriculture monitoring activities in Middle East to boost market 268
16.6.2 AFRICA 269
16.6.2.1 Increase in investments for agriculture innovations in Africa to drive market growth 269
17 COMPETITIVE LANDSCAPE 271
17.1 OVERVIEW 271
17.2 KEY PLAYERS' STRATEGIES/RIGHT TO WIN 271
17.3 ANNUAL REVENUE ANALYSIS, 2020-2024 273
17.4 MARKET SHARE ANALYSIS, 2024 273
17.5 COMPANY EVALUATION MATRIX: KEY PLAYERS, 2024 276
17.5.1 STARS 276
17.5.2 EMERGING LEADERS 276
17.5.3 PERVASIVE PLAYERS 276
17.5.4 PARTICIPANTS 276
17.5.5 COMPANY FOOTPRINT: KEY PLAYERS, 2024 278
17.5.5.1 Company footprint 278
17.5.5.2 Region footprint 278
17.5.5.3 Robot type footprint 279
17.5.5.4 Offering footprint 279
17.5.5.5 End use footprint 280
17.6 COMPANY EVALUATION MATRIX: STARTUPS/SMES, 2024 281
17.6.1 PROGRESSIVE COMPANIES 281
17.6.2 RESPONSIVE COMPANIES 281
17.6.3 DYNAMIC COMPANIES 281
17.6.4 STARTING BLOCKS 281
17.6.5 COMPETITIVE BENCHMARKING: STARTUPS/SMES, 2024 282
17.6.5.1 Detailed list of key startups/SMEs 282

17.6.5.2 Competitive benchmarking of key startups/SMEs 283
17.7 COMPANY VALUATION AND FINANCIAL METRICS 284
17.8 PRODUCT COMPARISON 285
17.9 COMPETITIVE SCENARIO AND TRENDS 286
17.9.1 PRODUCT LAUNCHES 286
17.9.2 DEALS 289
17.9.3 EXPANSIONS 293
?
18 COMPANY PROFILES 294
18.1 KEY PLAYERS 294
18.1.1 DEERE & COMPANY 294
18.1.1.1 Business overview 294
18.1.1.2 Products offered 295
18.1.1.3 Recent developments 296
18.1.1.3.1 Product launches 296
18.1.1.3.2 Deals 297
18.1.1.4 MnM view 297
18.1.1.4.1 Right to win 297
18.1.1.4.2 Strategic choices 297
18.1.1.4.3 Weaknesses and competitive threats 297
18.1.2 CNH INDUSTRIAL NV 298
18.1.2.1 Business overview 298
18.1.2.2 Products offered 299
18.1.2.3 Recent developments 300
18.1.2.3.1 Deals 300
18.1.2.4 MnM view 301
18.1.2.4.1 Right to win 301
18.1.2.4.2 Strategic choices 301
18.1.2.4.3 Weaknesses and competitive threats 301
18.1.3 AGCO CORPORATION 302
18.1.3.1 Business overview 302
18.1.3.2 Products offered 303
18.1.3.3 Recent developments 303
18.1.3.3.1 Product launches 303
18.1.3.3.2 Deals 304
18.1.3.3.3 Expansions 304
18.1.3.4 MnM view 305
18.1.3.4.1 Right to win 305
18.1.3.4.2 Strategic choices 305
18.1.3.4.3 Weaknesses and competitive threats 305
18.1.4 TRIMBLE INC. 306
18.1.4.1 Business overview 306
18.1.4.2 Products offered 307
18.1.4.3 Recent developments 310
18.1.4.3.1 Product launches 310
18.1.4.3.2 Deals 311
18.1.4.4 MnM view 312

18.1.4.4.1 Key strengths 312
18.1.4.4.2 Strategic choices 312
18.1.4.4.3 Weaknesses and competitive threats 312
18.1.5 DJI 313
18.1.5.1 Business overview 313
18.1.5.2 Products offered 313
18.1.5.3 Recent developments 314
18.1.5.3.1 Product launches 314
18.1.5.4 MnM view 315
18.1.5.4.1 Right to win 315
18.1.5.4.2 Strategic choices 315
18.1.5.4.3 Weaknesses and competitive threats 315
18.1.6 BOUMATIC 316
18.1.6.1 Business overview 316
18.1.6.2 Products offered 316
18.1.6.3 Recent developments 317
18.1.6.3.1 Product launches 317
18.1.6.3.2 Deals 318
18.1.6.4 MnM view 318
18.1.7 LELY INTERNATIONAL 319
18.1.7.1 Business overview 319
18.1.7.2 Products offered 320
18.1.7.3 Recent developments 320
18.1.7.3.1 Products offered 320
18.1.7.3.2 Deals 321
18.1.7.4 MnM view 321
18.1.8 EAGLENXT 322
18.1.8.1 Business overview 322
18.1.8.2 Products offered 323
18.1.8.3 Recent developments 323
18.1.8.3.1 Product launches 323
18.1.8.3.2 Deals 324
18.1.8.3.3 Other developments 326
18.1.8.4 MnM view 326
18.1.9 KUBOTA CORPORATION 327
18.1.9.1 Business overview 327
18.1.9.2 Products offered 328
18.1.9.3 Recent developments 329
18.1.9.3.1 Product launches 329
18.1.9.3.2 Deals 329
18.1.9.4 MnM view 330
?
18.1.10 DELAVAL 331
18.1.10.1 Business overview 331
18.1.10.2 Products offered 332
18.1.10.3 Recent developments 335
18.1.10.3.1 Product launches 335

18.1.10.3.2 Deals 336
18.1.10.3.3 Expansions 336
18.1.10.4 MnM view 337
18.1.10.4.1 Right to win 337
18.1.11 HARVEST CROO ROBOTICS 338
18.1.11.1 Business overview 338
18.1.11.2 Products offered 338
18.1.11.3 Recent developments 339
18.1.11.3.1 Product launches 339
18.1.11.4 MnM view 339
18.1.12 NAIO TECHNOLOGIES 340
18.1.12.1 Business overview 340
18.1.12.2 Products offered 340
18.1.12.3 Recent developments 341
18.1.12.3.1 Product launches 341
18.1.12.3.2 Deals 341
18.1.12.4 MnM view 341
18.1.13 ECOROBOTIX 342
18.1.13.1 Business overview 342
18.1.13.2 Products offered 342
18.1.13.3 MnM view 343
18.1.14 AGROBOTS 344
18.1.14.1 Business overview 344
18.1.14.2 Products offered 344
18.1.14.3 MnM view 345
18.1.15 ROBOTICS PLUS 346
18.1.15.1 Business overview 346
18.1.15.2 Products offered 346
18.1.15.3 Recent developments 347
18.1.15.3.1 Product launches 347
18.1.15.3.2 Deals 347
18.1.15.4 MnM view 347
?
18.2 OTHER PLAYERS 348
18.2.1 AUTONOMOUS TRACTOR CORPORATION 348
18.2.1.1 Business overview 348
18.2.1.2 Products offered 348
18.2.1.3 Recent developments 349
18.2.1.3.1 Product launches 349
18.2.1.4 MnM view 349
18.2.2 FFROBOTICS 350
18.2.2.1 Business overview 350
18.2.2.2 Products offered 350
18.2.2.3 MnM view 350
18.2.3 DRONEDEPLOY 351
18.2.3.1 Business overview 351
18.2.3.2 Products offered 351

18.2.3.3 Recent developments 352
18.2.3.3.1 Deals 352
18.2.3.4 MnM view 353
18.2.4 YANMAR CO. 354
18.2.4.1 Business overview 354
18.2.4.2 Products offered 354
18.2.4.3 Recent developments 355
18.2.4.3.1 Product launches 355
18.2.4.4 MnM view 355
18.2.5 CLEARPATH ROBOTICS, INC. 356
18.2.5.1 Business overview 356
18.2.5.2 Products offered 356
18.2.5.3 Recent developments 357
18.2.5.3.1 Product launches 357
18.2.5.3.2 Deals 358
18.2.5.4 MnM view 358
18.2.6 BONSAI ROBOTICS INC. 359
18.2.7 AIGEN 360
18.2.8 TEVEL AEROBOTICS TECHNOLOGIES LTD. 361
18.2.9 SWARMFARM 362
18.2.10 MONARCH TRACTOR 363
19 ADJACENT AND RELATED MARKETS 364
19.1 INTRODUCTION 364
19.2 LIMITATIONS 364
19.3 PRECISION LIVESTOCK FARMING MARKET 364
19.3.1 MARKET DEFINITION 364
19.3.2 MARKET OVERVIEW 364
19.4 MILKING ROBOTS MARKET 366
19.4.1 MARKET DEFINITION 366
19.4.2 MARKET OVERVIEW 366
20 APPENDIX 367
20.1 DISCUSSION GUIDE 367
20.2 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL 371
20.3 CUSTOMIZATION OPTIONS 373
20.4 RELATED REPORTS 373
20.5 AUTHOR DETAILS 374

Agricultural Robots Market by Robot Type (Unmanned Aerial Vehicles, Milking Robots), Application (Harvest Management, Dairy & Livestock Management), Offering (Hardware, Software), End Use, Farming Environment, Farm Size, and Region - Global Forecast to 2030

Market Report | 2025-11-07 | 375 pages | MarketsandMarkets

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User	$4950.00
	Multi User	$6650.00
	Corporate License	$8150.00
	Enterprise Site License	$10000.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	

Zip Code*		Country*	
		Date	2026-02-06
		Signature	