

Controlled Release Fertilizers Market Assessment, By Type [Uncoated Nitrogen-Based Fertilizers, Coated Nitrogen-Based Fertilizers, Polymer-Coated Fertilizers], By Mode of Application [Soil Treatment, Foliar Application, Fertigation], By Crop Type [Cereals and Grains, Oilseeds and Pulses, Fruits and Vegetables, Others], By Region, Opportunities and Forecast, 2017-2031F

Market Report | 2024-11-27 | 225 pages | Market Xcel - Markets and Data

AVAILABLE LICENSES:

- Single User License \$4500.00
- Multi-User/Corporate Licence \$5700.00
- Custom Research License \$8200.00

Report description:

Global controlled release fertilizers (CRF) market is projected to witness a CAGR of 7.01% during the forecast period 2024-2031, growing from USD 2.68 billion in 2023 to USD 4.61 billion in 2031. The global demand for controlled-release fertilizers is on the rise, and the growth is attributed to sustainable agriculture practices, food security, and the efficient utilization of nutrients in crops. Controlled release fertilizers are developed in such a way that they slow down the nutrient release to the crops to reduce the nutrient loss to leaching and volatilization, improving crop yields, and protecting the environment. These fertilizers are widely used in agriculture, horticulture, and the ornamental landscape, with their increasing utilization in high-value crop sectors such as fruits, vegetables, and cereals.

The efficiency of controlled release fertilizers is being enhanced by technological developments, especially with the advancements made in polymer coatings and encapsulation technologies. It enables a more precise and sustained release of nutrients. This enables farmers to cut down the number of fertilizer applications, which significantly reduces labor and operational costs. Encapsulated and coated fertilizer products, such as polymer-coated urea, are witnessing a rise in demand based on their effectiveness in providing nitrogen, which is an essential nutrient for plants. Witnessing the growing usage of these fertilizers, in September 2023, Sollio Agriculture, owned by Sollio Cooperative Group, set up its new plant for controlled-release fertilizer production, CRF Agritech, in Ontario, Canada. The plant has an annual production capacity of over 100,000 tons. Using the unique coating technology by Pursell Agri-Tech, LLC, the plant manufactures PurYield, which reduces greenhouse gas emissions by 30%. However, several obstacles, including higher initial expenses than most chemical fertilizers and lack of awareness among

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

small-scale farmers, might hinder mass adoption even though the prospects are optimistic. Nevertheless, owing to the emphasis on sustainable agriculture across the globe, controlled release fertilizers market is expected to witness significant growth.

New Grower Practices Catalyze Market Expansion

The changing preferences of the users majorly contribute to the growth of the controlled release fertilizers market. Newer agricultural practices, such as precision farming and modern crop technologies, have increased the need for fertilizers that can sustain efficient and precise nutrient delivery for an extended time. Due to the increasing demand for high crop productivity without compromising on nutrient use efficiency and reduced frequency of fertilizer application, controlled release fertilizers are preferred. Moreover, the use of fertigation is increasing, and employing fertilizers makes fertigation systems considerably more efficient when applying controlled release fertilizers.

In addition, the increasing need to optimize labor and reduce the costs of operations has encouraged cultivators to use controlled release fertilizers as they eliminate the need for repeated applications of fertilizers. The growing use of digital agriculture tools for soil testing and crop monitoring has allowed growers to optimize nutrient applications, hence facilitating the increasing adoption of these fertilizers. As more farmers embrace data-led and sophisticated farming methods, the controlled release fertilizers market is expected to grow rapidly, making it an essential aspect of current agricultural practices.

In September 2024, Malaysia-based National Farmers' Association (NAFAS) introduced its latest controlled release liquid fertilizer, Peladang 25. The fertilizer is suitable for crops such as oil palm, Napier grass, rice, and pineapple, and is compatible with herbicides and fungicides.

Regulatory Pressure and Environmental Trends to Fuel Market Growth

The amount of nutrients used can be restricted by environmental regulations. As a result, the use of more effective nutrient solutions, such as controlled release fertilizers, increases. The EU Nitrates Directive places a cap on the quantity of nitrates that may be present in the water supply, which is an example of one of these regulations. Specialty fertilizers, such as controlled release fertilizers, can promote better utilization of nitrogen within the crop, thus lowering the levels of nitrates. To deal with sustainability concerns, in December 2023, Cotex Technologies Inc., in partnership with Nutrien Ltd., developed an affordable and customizable coating for controlled-release fertilizer that helps in minimizing the environmental impact. By allowing fertilizer to be gradually released into the soil over time, the plant-based coating reduces greenhouse gas emissions and removes any possible leftover material.

In addition, the increasing focus on the health of soils complements the advantages offered by controlled release fertilizers, rendering them a worthwhile consideration by farmers looking to address their needs sustainably. These tendencies concerning the environment, along with the increasing legal restrictions on the use of traditional fertilizers, are driving the growth of controlled release fertilizers market.

Fruits and Vegetables Segment to Hold a Significant Market Share

The fruits and vegetables segment is one of the major markets for controlled release fertilizers, with a growing demand for precise nutrient management and high-quality crop production. These crops tend to be high-value crops, considering the flavor and appearance of the fruits. To maintain the growth, taste, and appearance of these crops, a constant need for nutrients is required to be supplied, which makes controlled release fertilizers a viable option. In contrast to conventional fertilizers, controlled release fertilizers help to maintain the nutrient supply for a longer duration, minimizing the chances of nutrient surplus or deficiency, ensuring that every growth phase of fruits and vegetables crops are supplied with the necessary nutrients.

This helps to improve yield and quality and decreases the number of fertilizer applications, which is an economical method for farmers. With the changing trend of consumers requiring more quality fruits and vegetables, the growers have positively embraced the use of controlled release fertilizers, extending the share of this segment in the global controlled release fertilizers market.

In September 2022, ICL Group introduced a biodegradable coating technology, eqo.x, created especially for seed onions and potatoes. It is the first product in the market to offer a controlled release fertilizer (CRF) coating for urea, which biodegrades more quickly. In May 2024, the company began shipping the products that use eqo.x technology, starting with the Netherlands and Switzerland.

Asia-Pacific to Grow Rapidly During the Forecast Period

The controlled release fertilizers market is growing at an astonishing rate in Asia-Pacific due to the huge agricultural base of the

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

region coupled with the growing need for high agricultural outputs. The growth is fueled mostly by China, India, and Japan, which have vast areas under cultivation and are increasingly embracing modern agricultural practices. These countries, along with many others in the region, are witnessing a rapid increase in population, resulting in the intensified need for food production. This has led the farmers to utilize controlled release fertilizers for enhanced nutrient management and increased productivity.

Furthermore, governments are modernizing agriculture and investing in infrastructure to facilitate the application of controlled release fertilizers. Hence, Asia-Pacific is becoming one of the most strategic regions in the world for the controlled release fertilizers market and is especially projected to grow quite fast in the next few years.

In June 2024, a Memorandum of Understanding (MOU) for the commercialization of environmentally friendly controlled-release fertilizers was signed between Nousbo Co., Ltd. and SK leaveo Co., Ltd. Nousbo intends to use its planning, manufacturing, and marketing skills through the MOU to stay up to date with developments in the global fertilizer market, while SK leaveo will concentrate on creating biodegradable polymers for producing coated fertilizers and providing new products by the first quarter of 2025.

Future Market Scenario (2024 – 2031F)

□□The ability to innovate coating technologies will improve the efficiency of nutrient delivery, making controlled release fertilizers more efficient and commonly used.

□□The combined application of precision farming techniques and controlled release fertilizers will certainly enhance the market as farmers aim to achieve optimal nutrient management.

□□Due to the increasing R&D investments, more efficient and reasonably controlled release fertilizer products are expected to be developed, increasing their market reach.

Key Players Landscape and Outlook

The controlled release fertilizers market is characterized by intense competition, with key players focusing on innovation, product development, and strategic partnerships to enhance their market presence. Many leading manufacturers are investing in advanced coating technologies and nutrient release mechanisms to improve fertilizer efficiency, catering to diverse crop requirements. These companies are expanding their product portfolios to address the growing demand for controlled release fertilizers across various applications, including agriculture, horticulture, and landscaping.

Market players are increasingly engaging in collaborations and joint ventures to strengthen their distribution networks and reach a wider customer base. For instance, in February 2024, Yara International ASA, in collaboration with Pursell Agri-Tech, LLC, introduced its latest controlled release fertilizer, PurMidas, specifically customized for turf. The product offers a seven-to-one ratio of N to S for better performance and optimal growth. PurMidas prevents nutritional segregation by supplying consistent amounts of nitrogen from urea, ammoniacal, and sulfate sulfur to each particle. It, therefore, improves the spreading consistency in the absence of observable striping and uneven growth patterns.

Additionally, efforts to create cost-effective and high-performance controlled release fertilizer products are expected to drive market growth and expand adoption rates. The outlook remains positive, with ongoing research and development expected to result in more efficient formulations, positioning controlled release fertilizers as an integral component of modern agricultural practices, especially in regions focused on enhancing crop yield and quality.

Table of Contents:

1. □ Project Scope and Definitions
2. □ Research Methodology
3. □ Executive Summary
4. □ Voice of Customer
 - 4.1. □ Demographics (Income - Low, Mid and High; Geography; Nationality; etc.)
 - 4.2. □ Market Awareness and Product Information
 - 4.3. □ Brand Awareness and Loyalty
 - 4.4. □ Factors Considered in Purchase Decision
 - 4.4.1. □ Product Efficacy
 - 4.4.2. □ Cost-Effectiveness

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 4.4.3.□Compatibility
- 4.4.4.□Quality and Composition
- 4.4.5.□Crop Specificity
- 4.4.6.□Environmental Impact
- 4.4.7.□Brand Reputation
- 4.4.8.□Reliability
- 4.4.9.□Technical Support and Guidance
- 4.4.10.□Regulatory Compliance
- 4.5.□Purchase Channel
- 4.6.□Frequency of Purchase
- 4.7.□Existing or Intended User
- 5.□Global Controlled Release Fertilizers Market Outlook, 2017-2031F
- 5.1.□Market Size Analysis & Forecast
- 5.1.1.□By Value
- 5.2.□Market Share Analysis & Forecast
- 5.2.1.□By Type
- 5.2.1.1.□Uncoated Nitrogen-Based Fertilizers
- 5.2.1.2.□Coated Nitrogen-Based Fertilizers
- 5.2.1.3.□Polymer-Coated Fertilizers
- 5.2.2.□By Mode of Application
- 5.2.2.1.□Soil Treatment
- 5.2.2.2.□Foliar Application
- 5.2.2.3.□Fertigation
- 5.2.3.□By Crop Type
- 5.2.3.1.□Cereals and Grains
- 5.2.3.2.□Oilseeds and Pulses
- 5.2.3.3.□Fruits and Vegetables
- 5.2.3.4.□Others
- 5.2.4.□By Region
- 5.2.4.1.□North America
- 5.2.4.2.□Europe
- 5.2.4.3.□Asia-Pacific
- 5.2.4.4.□South America
- 5.2.4.5.□Middle East and Africa
- 5.2.5.□By Company Market Share Analysis (Top 5 Companies and Others - By Value, 2023)
- 5.3.□Market Map Analysis, 2023
- 5.3.1.□By Type
- 5.3.2.□By Mode of Application
- 5.3.3.□By Crop Type
- 5.3.4.□By Region
- 6.□North America Controlled Release Fertilizers Market Outlook, 2017-2031F*
- 6.1.□Market Size Analysis & Forecast
- 6.1.1.□By Value
- 6.2.□Market Share Analysis & Forecast
- 6.2.1.□By Type
- 6.2.1.1.□Uncoated Nitrogen-Based Fertilizers
- 6.2.1.2.□Coated Nitrogen-Based Fertilizers

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 6.2.1.3.□ Polymer-Coated Fertilizers
 - 6.2.2.□ By Mode of Application
 - 6.2.2.1.□ Soil Treatment
 - 6.2.2.2.□ Foliar Application
 - 6.2.2.3.□ Fertigation
 - 6.2.3.□ By Crop Type
 - 6.2.3.1.□ Cereals and Grains
 - 6.2.3.2.□ Oilseeds and Pulses
 - 6.2.3.3.□ Fruits and Vegetables
 - 6.2.3.4.□ Others
 - 6.2.4.□ By Country Share
 - 6.2.4.1.□ United States
 - 6.2.4.2.□ Canada
 - 6.2.4.3.□ Mexico
 - 6.3.□ Country Market Assessment
 - 6.3.1.□ United States Controlled Release Fertilizers Market Outlook, 2017-2031F*
 - 6.3.1.1.□ Market Size Analysis & Forecast
 - 6.3.1.1.1.□ By Value
 - 6.3.1.2.□ Market Share Analysis & Forecast
 - 6.3.1.2.1.□ By Type
 - 6.3.1.2.1.1.□ Uncoated Nitrogen-Based Fertilizers
 - 6.3.1.2.1.2.□ Coated Nitrogen-Based Fertilizers
 - 6.3.1.2.1.3.□ Polymer-Coated Fertilizers
 - 6.3.1.2.2.□ By Mode of Application
 - 6.3.1.2.2.1.□ Soil Treatment
 - 6.3.1.2.2.2.□ Foliar Application
 - 6.3.1.2.2.3.□ Fertigation
 - 6.3.1.2.3.□ By Crop Type
 - 6.3.1.2.3.1.□ Cereals and Grains
 - 6.3.1.2.3.2.□ Oilseeds and Pulses
 - 6.3.1.2.3.3.□ Fruits and Vegetables
 - 6.3.1.2.3.4.□ Others
 - 6.3.2.□ Canada
 - 6.3.3.□ Mexico
- *All segments will be provided for all regions and countries covered
- 7.□ Europe Controlled Release Fertilizers Market Outlook, 2017-2031F
 - 7.1.□ Germany
 - 7.2.□ France
 - 7.3.□ Italy
 - 7.4.□ United Kingdom
 - 7.5.□ Russia
 - 7.6.□ Netherlands
 - 7.7.□ Spain
 - 7.8.□ Turkey
 - 7.9.□ Poland
 - 8.□ Asia-Pacific Controlled Release Fertilizers Market Outlook, 2017-2031F
 - 8.1.□ India

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 8.2. □China
- 8.3. □Japan
- 8.4. □Australia
- 8.5. □Vietnam
- 8.6. □South Korea
- 8.7. □Indonesia
- 8.8. □Philippines
- 9. □South America Controlled Release Fertilizers Market Outlook, 2017-2031F
 - 9.1. □Brazil
 - 9.2. □Argentina
- 10. □Middle East and Africa Controlled Release Fertilizers Market Outlook, 2017-2031F
 - 10.1. □Saudi Arabia
 - 10.2. □UAE
 - 10.3. □South Africa
- 11. □Demand Supply Analysis
- 12. □Import and Export Analysis
- 13. □Value Chain Analysis
- 14. □Porter's Five Forces Analysis
- 15. □PESTLE Analysis
- 16. □Macro-economic Indicators
- 17. □Pricing Analysis
- 18. □Profit Margin Analysis
- 19. □Market Dynamics
 - 19.1. □Market Drivers
 - 19.2. □Market Challenges
- 20. □Market Trends and Developments
- 21. □Case Studies
- 22. □Competitive Landscape
 - 22.1. □Competition Matrix of Top 5 Market Leaders
 - 22.2. □Company Ecosystem Analysis (Startup v/s SME v/s Large-scale)
 - 22.3. □SWOT Analysis for Top 5 Players
 - 22.4. □Key Players Landscape for Top 10 Market Players
 - 22.4.1. □Pursell Agri-Tech, LLC
 - 22.4.1.1. □Company Details
 - 22.4.1.2. □Key Management Personnel
 - 22.4.1.3. □Products and Services
 - 22.4.1.4. □Financials (As Reported)
 - 22.4.1.5. □Key Market Focus and Geographical Presence
 - 22.4.1.6. □Recent Developments/Collaborations/Partnerships/Mergers and Acquisition
 - 22.4.2. □Mivena BV
 - 22.4.3. □Yara International ASA
 - 22.4.4. □Everris International B.V.
 - 22.4.5. □CONKEL PTY LTD
 - 22.4.6. □COMPO EXPERT GmbH
 - 22.4.7. □Kingenta Ecological Engineering Group Co., Ltd.
 - 22.4.8. □Stamicarbon B.V.
 - 22.4.9. □Haifa Negev technologies Ltd.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

22.4.10. Ekompany International B.V.

*Companies mentioned above DO NOT hold any order as per market share and can be changed as per information available during research work.

23. Strategic Recommendations

24. About Us and Disclaimer

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Controlled Release Fertilizers Market Assessment, By Type [Uncoated Nitrogen-Based Fertilizers, Coated Nitrogen-Based Fertilizers, Polymer-Coated Fertilizers], By Mode of Application [Soil Treatment, Foliar Application, Fertigation], By Crop Type [Cereals and Grains, Oilseeds and Pulses, Fruits and Vegetables, Others], By Region, Opportunities and Forecast, 2017-2031F

Market Report | 2024-11-27 | 225 pages | Market Xcel - Markets and Data

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 License	\$4500.00
	Muti-User/Corporate Licence	\$5700.00
	Custom Research License	\$8200.00
		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*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Address*

City*

Zip Code*

Country*

Date

2026-03-05

Signature

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com