

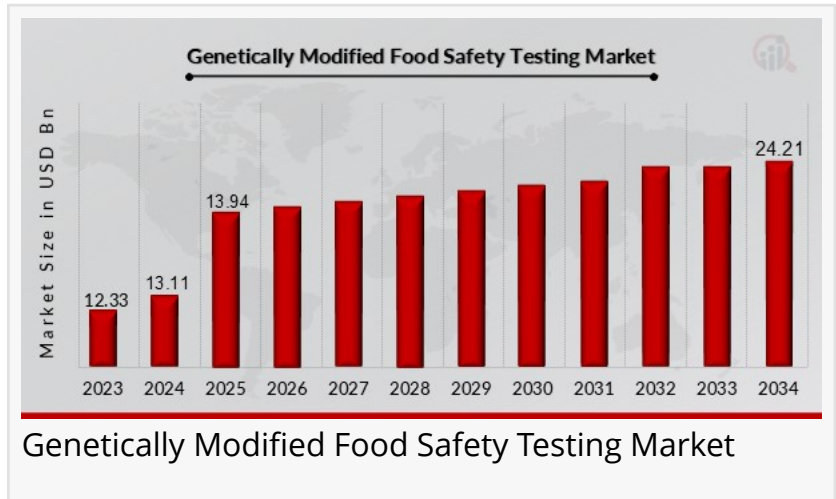
Genetically Modified Food Safety Testing Market to Reach 24.21 USD Billion by 2034 with 6.3% CAGR

Genetically Modified Food Safety Testing Market by Type of Food Tested, Testing Method, Application, End User

NEW YORK, NY, UNITED STATES, April 28, 2025 /EINPresswire.com/ --

The global Genetically Modified (GM) Food Safety Testing Market is witnessing rapid evolution, driven by increasing consumer demand for transparency, stricter government

regulations, and major technological breakthroughs. A newly released market research report offers a detailed analysis, covering critical segments such as Type of Food Tested, Testing Method, Application, End User, and Technology. The report also explores key drivers, industry developments, and challenges shaping the future of GM food safety testing.



[Genetically Modified Food Safety Testing Industry](#) is expected to grow from 13.94(USD Billion) in 2025 to 24.21 (USD Billion) by 2034. The Genetically Modified Food Safety Testing Market CAGR (growth rate) is expected to be around 6.3% during the forecast period (2025 - 2034).

Genetically modified foods—ranging from staple crops to processed foods—have become a significant part of the global food supply. However, growing concerns around food safety, environmental impact, and human health have intensified the need for rigorous testing protocols. With consumers demanding clean labels and traceable food origins, the GM food safety testing market is positioned for strong growth over the next decade.

Key Players:

Intertek, RBiopharm AG, AsureQuality, Control Union, Mérieux NutriSciences, SGS, BioRad Laboratories, Waters Corporation, Neogen Corporation, Thermo FisherneweraAgilent Technologies, Eurofins Scientific, ALS, Bureau Veritas

"Request Free Sample" - Obtain a complimentary sample of our report to assess its quality and relevance to your requirements:

https://www.marketresearchfuture.com/sample_request/26932

Market Overview by Type of Food Tested

The Genetically Modified Food Safety Testing Market can be segmented by the type of food tested, which includes crops, livestock, seafood, and processed foods. Crops such as soybeans, corn, and canola remain the most commonly tested products, given their extensive modification history. Livestock testing is also gaining traction, particularly regarding animal feed ingredients derived from GM sources. Additionally, seafood and processed foods that integrate GM ingredients are increasingly subject to testing, reflecting the expansion of genetically engineered traits into more categories of the food chain.

Market Overview by Testing Method

Testing methods are a cornerstone of the GM food safety testing process. Techniques such as Polymerase Chain Reaction (PCR) and Enzyme-Linked Immunosorbent Assay (ELISA) dominate the landscape due to their precision and cost-effectiveness. PCR remains the gold standard for DNA-based identification of genetically modified organisms (GMOs), offering high sensitivity and specificity. Meanwhile, ELISA methods are favored for their simplicity and ability to detect protein-based GMO markers.

More advanced methods such as Sanger Sequencing and Next-Generation Sequencing (NGS) are emerging as powerful tools, particularly for comprehensive analysis and detection of novel or stacked GMO traits. As testing complexity grows, adoption of NGS technologies is expected to rise, especially among large research institutions and contract laboratories that require high-throughput, detailed results.

"Proceed to Buy" - Move forward with your purchase and gain instant access to the complete report: https://www.marketresearchfuture.com/checkout?currency=one_user-USD&report_id=26932

Market Overview by Application

Applications of GM food safety testing span detection, quantification, identification, and safety assessment of GMOs. Detection remains the primary application, focusing on verifying the presence or absence of genetically modified materials in foods. Quantification is equally critical, helping manufacturers ensure compliance with regional labeling regulations, which often require disclosure if GMO content exceeds certain thresholds.

Identification of GMOs—determining exactly which genetic traits are present—is becoming increasingly important as GM technology advances and as regulatory frameworks become more

specific. Finally, safety assessments are essential for evaluating potential health risks associated with new GM traits, and they continue to drive innovation in both testing methods and regulatory science.

Market Overview by End User

The end users of GM food safety testing services and products include food and beverage companies, government agencies, research institutions, and contract research organizations (CROs). Food and beverage companies are the largest users, seeking to validate product claims and maintain brand trust. With consumers more conscious of food origins than ever before, ensuring non-GMO status or proper labeling is crucial for many brands.

Government agencies across the globe are also investing heavily in food testing infrastructure to enforce GMO regulations and protect public health. Meanwhile, research institutions and CROs are at the forefront of developing new testing methods, providing crucial services to support both regulators and private-sector clients.

Market Overview by Technology

Technological advancements are revolutionizing the GM food safety testing market. Rapid DNA extraction kits, portable PCR machines, AI-assisted data analysis, and automation in testing processes are enhancing accuracy, speed, and scalability. Blockchain integration for traceability and smart labeling technologies are also emerging as complementary innovations, ensuring transparency from farm to fork.

Industry Development Highlights

The Genetically Modified Food Safety Testing Market has seen several pivotal developments in recent years. Strategic partnerships between testing laboratories and biotechnology firms are accelerating method development. Leading companies are also expanding their service offerings, with multi-target testing panels becoming standard to efficiently detect multiple GMO traits in a single test.

The market is further propelled by harmonization efforts in regulatory standards, especially in North America and Europe, which are helping standardize testing protocols and ensure consistent global compliance. Additionally, developing countries are investing in laboratory infrastructure, creating new opportunities for testing service providers and equipment manufacturers.

Several players in the market, such as SGS SA, Eurofins Scientific, Intertek Group plc, and Thermo Fisher Scientific, are heavily investing in R&D to improve sensitivity, reduce testing turnaround times, and lower costs, thereby driving wider adoption of GM food testing even among small and mid-sized food producers.

Market Drivers

The Genetically Modified Food Safety Testing Market is primarily driven by increasing regulatory scrutiny and public concern over GMO consumption. Stringent regulations in regions such as the European Union, where GMO labeling and safety assessments are mandatory, are prompting manufacturers to invest heavily in testing.

Consumer demand for organic, non-GMO, and sustainably sourced foods is also a significant driver. As brand loyalty increasingly hinges on transparency and ethical sourcing, companies are leveraging GM testing as part of their broader quality assurance strategies.

Technological advancements have made testing faster, more accurate, and cost-effective, which in turn is lowering the barrier to entry for small- and medium-sized food producers. The development of portable and easy-to-use test kits is particularly enabling on-site testing, reducing the need for centralized laboratory analysis.

Globalization of the food supply chain is another factor fueling the need for rigorous GM food safety testing. With ingredients crossing multiple borders before reaching the consumer, verifying GMO content at each step of the supply chain is critical to maintaining compliance and quality assurance.

"Browse Report" - Explore the report's contents, sections, and key insights by browsing through its detailed information: <https://www.marketresearchfuture.com/reports/genetically-modified-food-safety-testing-market-26932>

Market Challenges

Despite its robust growth prospects, the GM food safety testing market faces several challenges. One major hurdle is the high cost associated with advanced testing methods such as NGS and Sanger Sequencing, which may deter smaller companies from conducting comprehensive tests.

Lack of harmonized international standards also presents a significant challenge. Variations in GMO regulations between countries complicate testing procedures and increase operational complexities for multinational food companies.

Technical challenges persist as well. With the development of newer GMOs that involve complex, multi-trait modifications, traditional testing methods sometimes struggle to keep pace, necessitating continual technological innovation and investment in R&D.

Furthermore, political and societal debates surrounding GMOs occasionally impact market dynamics. In some regions, public opposition to GMO crops and products remains strong, leading to regulatory uncertainty that can either accelerate or hinder market growth depending

on the political climate.

TABLE OF CONTENTS:

- 1 EXECUTIVE SUMMARY
- 2 MARKET INTRODUCTION
- 3 RESEARCH METHODOLOGY
- 4 MARKET DYNAMICS
- 5 MARKET FACTOR ANALYSIS
- 6 GENETICALLY MODIFIED FOOD SAFETY TESTING MARKET, BY FORM
- 7 GENETICALLY MODIFIED FOOD SAFETY TESTING MARKET, BY CATEGORY
- 8 GENETICALLY MODIFIED FOOD SAFETY TESTING MARKET, BY APPLICATION
- 9 GENETICALLY MODIFIED FOOD SAFETY TESTING, BY REGION
- 10 COMPETITIVE LANDSCAPE

Discover more Research Reports on [Food, Beverages & Nutrition Industry](#), by Market Research Future:

cottonseed meal Market : <https://www.marketresearchfuture.com/reports/cottonseed-meal-market-37583>

dairy free smoothie Market : <https://www.marketresearchfuture.com/reports/dairy-free-smoothie-market-37597>

dairy free spread Market : <https://www.marketresearchfuture.com/reports/dairy-free-spread-market-37608>

dairy protein crisp Market : <https://www.marketresearchfuture.com/reports/dairy-protein-crisp-market-37781>

de agglomerating equipment Market : <https://www.marketresearchfuture.com/reports/de-agglomerating-equipment-market-37605>

dead sea mineral Market : <https://www.marketresearchfuture.com/reports/dead-sea-mineral-market-37623>

decorations and inclusion Market : <https://www.marketresearchfuture.com/reports/decorations-and-inclusion-market-37658>

About Market Research Future:

Market Research Future (MRFR) is a global market research company that takes pride in its services, offering a complete and accurate analysis with regard to diverse markets and

consumers worldwide. Market Research Future has the distinguished objective of providing optimal quality research and granular research to clients. Our market research studies by products, services, technologies, applications, end users, and market players for global, regional, and country level market segments, enable our clients to see more, know more, and do more, which help answer your most important questions.

Contact Us:

Market Research Future (Part of Wantstats Research and Media Private Limited)

99 Hudson Street, 5Th Floor

New York, NY 10013

United States of America

+1 628 258 0071 (US)

+44 2035 002 764 (UK)

Email: sales@marketresearchfuture.com

Website: <https://www.marketresearchfuture.com>

Market Research Future

Market Research Future

+1 855-661-4441

[email us here](#)

Visit us on social media:

[LinkedIn](#)

[Facebook](#)

[YouTube](#)

[X](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/807267686>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.