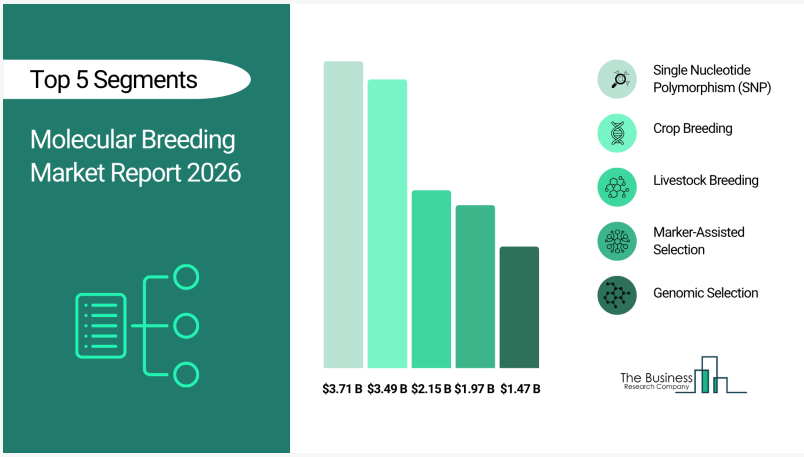
# Molecular Breeding Industry Report 2026: Key Drivers, Trends and Future Prospects

*The Business Research Company's Molecular Breeding Global Market Report 2026 – Market Size, Trends, And Forecast 2026-2035*

LONDON, GREATER LONDON, UNITED KINGDOM, April 23, 2026 /EINPresswire.com/ -- Molecular Breeding market to surpass $11 billion in 2030. In comparison, the Agricultural Biotechnology market, which is considered as its parent market, is expected to be approximately $80 billion by 2030, with Molecular Breeding to represent around 14% of the parent market. Within the broader Agriculture industry, which is expected to be $17,897 billion by 2030, the Molecular Breeding market is estimated to account for nearly 0.1% of the total market value.



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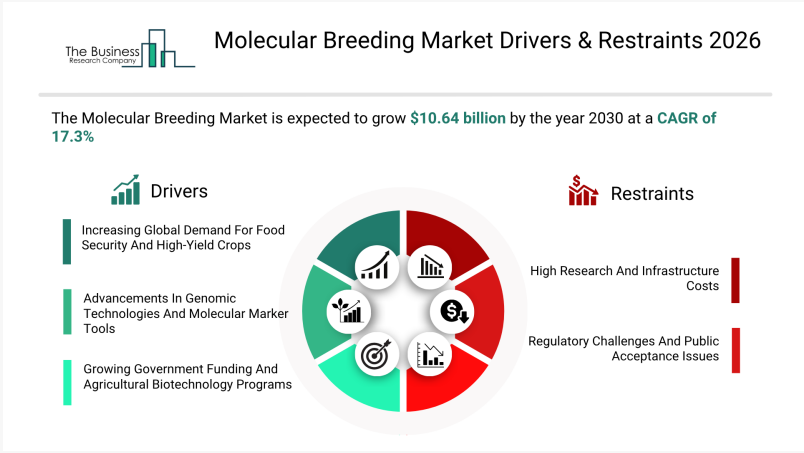

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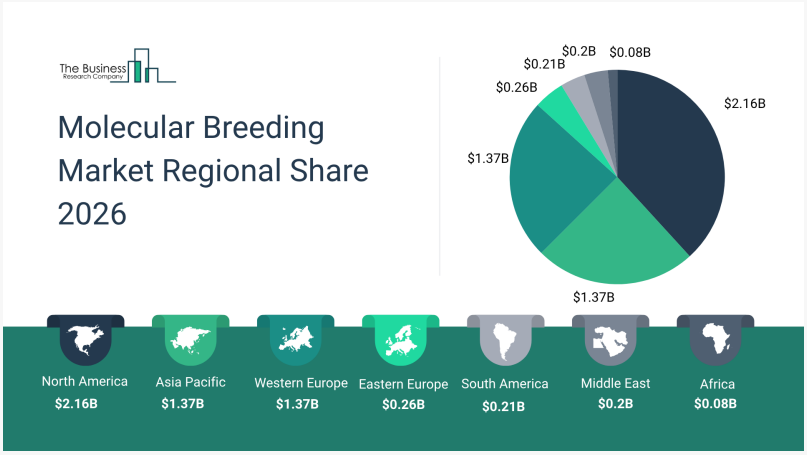
Which Will Be The Biggest Region In The Molecular Breeding Market In 2030?

North America will be the largest region in the molecular breeding market in 2030, valued at $4 billion. The market is expected to grow from $2 billion in 2025 at a compound annual growth rate (CAGR) of 14%. The rapid growth can be attributed to increasing investments in agricultural biotechnology, rising demand for high-yield and climate-resilient crop varieties, growing adoption of advanced genomic and marker-assisted breeding technologies, strong research and development activities by biotechnology companies, expanding collaborations between research institutions and seed companies, and increasing focus on sustainable agriculture and food security across countries such as the USA, Canada, and Mexico.

Which Will Be The Largest Country In The Global Molecular Breeding Market In 2030?
The USA will be the largest country in the molecular breeding market in 2030, valued at $3 billion. The market is expected to grow from $1 billion in 2025 at a compound annual growth rate (CAGR) of 14%. The rapid growth can be attributed to increasing demand for high-yield and climate-resilient crop varieties, strong investments in agricultural biotechnology research, rising adoption of marker-assisted selection by plant breeding companies, expanding collaborations between public research institutes and private seed developers, growing need to enhance crop productivity to support food security, and supportive government funding and regulatory frameworks promoting advanced breeding technologies across the country.



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What Will Be The Largest Segment In The Molecular Breeding Market In 2030?
The molecular breeding market is segmented by process into QTL mapping, marker-assisted selection, marker-assisted backcrossing, genomic selection, and other process. The genomic selection market will be the largest segment of the molecular breeding market segmented by process, accounting for 32% or $3 billion of the total in 2030. The genomic selection market will be supported by the increasing demand for faster crop improvement and breeding cycles, rising adoption of advanced genomic technologies in agriculture, growing need to enhance crop yield and stress tolerance, expanding use of data-driven breeding approaches, increasing investment in agricultural biotechnology research, and supportive government initiatives promoting sustainable and climate-resilient crop development.

The molecular breeding market is segmented by marker type into single sequence repeats (SSR), single nucleotide polymorphism (SNP), and other marker types. The single nucleotide polymorphism (SNP) market will be the largest segment of the molecular breeding market segmented by marker type, accounting for 77% or $8 billion of the total in 2030. The single nucleotide polymorphism (SNP) market will be supported by the increasing demand for high-throughput and cost-effective genotyping technologies, growing adoption of precision breeding and marker-assisted selection in crop improvement, rising need for development of high-yield and climate-resilient crop varieties, expanding research activities in plant genomics and biotechnology, technological advancements in sequencing and genotyping platforms, and

increasing investments in agricultural biotechnology and sustainable farming practices.

The molecular breeding market is segmented by application into crop breeding, and livestock breeding. The livestock breeding market will be the largest segment of the molecular breeding market segmented by application, accounting for 52% or $5 billion of the total in 2030. The livestock breeding market will be supported by the increasing demand for high-quality animal protein, growing adoption of genomic selection and marker-assisted breeding in livestock improvement, rising need to enhance disease resistance and productivity in farm animals, expanding investments in advanced breeding technologies by agribiotechnology companies, increasing focus on sustainable and efficient livestock production, and supportive government initiatives aimed at improving food security and agricultural productivity.

What Is The Expected CAGR For The Molecular Breeding Market Leading Up To 2030?
The expected CAGR for the molecular breeding market leading up to 2030 is 17%.

What Will Be The Growth Driving Factors In The Global Molecular Breeding Market In The Forecast Period?
The rapid growth of the global molecular breeding market leading up to 2030 will be driven by the following key factors that are expected to reshape global demand for food security and high-yield crops, advancements in genomic technologies and molecular marker tools, growing government funding and agricultural biotechnology programs, and innovation across global agricultural biotechnology and crop development ecosystems.

Increasing Global Demand For Food Security And High-Yield Crops – The increasing global demand for food security and high-yield crops is expected to emerge as a major factor driving the expansion of the molecular breeding market by 2030. These methods enable the development of crop varieties with improved yield, pest resistance, and climate resilience. Molecular breeding techniques such as marker-assisted selection help accelerate breeding programs, enabling faster production of improved crops to address global food shortages and environmental challenges. As a result, increasing global demand for food security and high-yield crops is anticipated to contribute approximately 2.9% annual growth to the market.

Advancements In Genomic Technologies And Molecular Marker Tools - The advancements in genomic technologies and molecular marker tools are expected to emerge as a major factor driving the expansion of the molecular breeding market by 2030. Rapid technological advancements in genomic sequencing, SNP genotyping, and marker-assisted selection are significantly enhancing the efficiency of breeding programs. These technologies allow scientists to identify desirable traits at the DNA level, reducing breeding cycles and improving precision. As genomic technologies become more accessible and affordable, agricultural companies and research institutions are increasingly integrating them into breeding programs. Consequently, advancements in genomic technologies and molecular marker tools are projected to contribute around 2.6% annual growth to the market.

Growing Government Funding And Agricultural Biotechnology Programs- Growing government funding and agricultural biotechnology programs is expected to act as a key growth catalyst for molecular breeding market by 2030. Public investments in genomic research, crop enhancement initiatives, and climate-resilient agriculture are accelerating the adoption of advanced breeding technologies. These efforts are also fostering collaborations among research institutions, biotechnology firms, and agricultural organizations, enabling wider global implementation of molecular breeding solutions. As a result, this factor is projected to contribute approximately 2.4% annual growth to the market.

Access The Detailed Molecular Breeding Market Report Here
https://www.thebusinessresearchcompany.com/report/molecular-breeding-global-market-report?utm_source=EINPresswire&utm_medium=Paid&utm_campaign=Apr_PR

What Are The Key Growth Opportunities In The Molecular Breeding Market in 2030?
The most significant growth opportunities are anticipated in the QTL mapping market, the marker-assisted selection market, the marker-assisted backcrossing market, the genomic selection market, and the other process market. Collectively, these segments are projected to contribute over $7 billion in market value by 2030, driven by increasing adoption of advanced breeding techniques, rising demand for high-yield and disease-resistant crops, growing integration of genomics in agriculture, expanding investments in precision farming, and supportive government initiatives for sustainable agriculture. This growth reflects the increasing focus on enhancing crop productivity, improving genetic traits, accelerating breeding cycles, and ensuring food security, thereby fuelling substantial expansion within the broader plant breeding and genomics market.

The QTL mapping market is projected to grow by $1 billion, the marker-assisted selection market by $2 billion, the marker-assisted backcrossing market by $1 billion, the genomic selection market by $2 billion, and the other process market by $1 billion over the next five years from 2025 to 2030.

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