

Molecular Farming:

Revolutionizing Sustainable >-Food Production



Whyis the Molecular Farming Sector
Gaining Significant Traction?

- The evolving market is anticipated to reach USD 1.3 billion by 2031
- Substantially growing demand for scalable, environmentally friendly, and nutritionally superior food solutions, as well as advancements in genetic engineering & bioprocessing technologies, are driving the market







Technologies in Molecular Farming for Scalable Production

- Advanced Genetic Engineering: CRISPR-Cas9, TALENs, ZFNs
- Bioreactor Design: Perfusion, fed-batch, continuous flow
 - **Protein Expression:** Recombinant proteins, synthetic biology





Benefits of Molecular Farming



Reduced environmental impact: Lower carbon footprint, water usage, and land requirements



Increased production efficiency: Higher yields and faster growth rates



Improved nutritional value: Tailored protein and nutrient composition





Major Applications of **Molecular Farming**



High-value proteins



Pharmaceuticals



Biofuels

W.



Neutrients





HOWE Support Enterprises Associated with the Molecular Farming Industry?



Product Development: Align with market demands and identify new opportunities in this emerging sector



Sustainability: Integrate sustainable practices and assess technology readiness



Market Insights: Leverage analytics, align R&D, and ensure swift lab-to-market transition





For more insights, reach out to our experts

contact@iebrain.com

Visit us:

www.iebrain.com

#futureproofingbusinesses