Editorial on Market Analysis

Introduction & Aim:

The increasing adoption of hybrid and molecular breeding techniques in developing countries and the growing cultivation of GM crops in the Americas are factors contributing to its high growth. The growing market for crop genetics in various countries of the Americas and the declining cost of genetic procedures in the past decade are factors driving the demand for genetic engineering and genome editing in the region. Unlike genetic techniques, no regulations are implied by the government for molecular breeding across the globe, which is projected to drive the growth of the biotechnological method at a higher rate during the forecast period. Advances in the field of CRISPR gene editing technology have brought about the third revolution in crop improvement and these tools can be used along with existing technologies. Growing innovation would facilitate the growth of CRISPR technology in agriculture, especially in countries such as the US, China, Japan, Brazil, and south Africa.

Increasing regulations on the use of chemical pesticides and rising instances of pest attacks during the early germination phase have increased the need for pesticide-tolerant seeds. Herbicide tolerance has been one of the major traits targeted by plant genetic companies for transgenic and non-transgenic crops. Non-transgenic Clearfield herbicide tolerance technology, developed by BASF and Syngenta, is recognized as one of the ground breaking innovations in hybrid breeding technology,

Corn, wheat, and rice are the major cereals bred with advanced technologies such as molecular breeding and genetic techniques. The availability of germplasm for these crops encourages the adoption of advanced techniques for crop breeding. The economic importance of corn due to its application in various sectors and increasing demand for high-quality wheat and rice in the food industry are other reasons for the adoption of hybrid breeding technologies among seed producers.