INTRODUCTION Biotechnology is the application of science and technol- ogy to living organisms as well as parts, products, and models thereof, to alter living or nonliving materials for the production of knowledge, goods, and services [1].Transgenic po- tatoes are resistant to enzymatic darkening and free of harmful glycoalkaloids [10]; o transgenic strawberries sweeter, more resistant to frost and longer ripening; o transgenic oilseed rape, with a lower content of un- saturated fatty acids, resistant to herbicides [6]; o increasing plant sales through their better taste and appearance; o reduction in the use of chemical plant protection productsMolecular breeding approach identi es and validates quantitative trait loci markers associated with for traits of interesting genes that can be introgressed in elite lines through marker- assisted backcrossing [3].The concern for biotechnological development should facil- itate biosafety, health regulations, and not be regulated by the motive of corporate pro t interests through asso- ciated funded research and becoming increasingly permissive to explorative trials on human health and life.The environmental protection is the crucial compo- nent in sustainable development of biotechnology either directly through remediation processes or indi- rectly preventive through substitutions in conventional processes [2,5e7].The main achievements of biotechnology are primarily genetically modi ed plants (GMOs), which allowed to direct and control changes in the genome, to strengthen plants against diseases and pests and adverse environ- mental conditions.With progressing improvements in science, automation, and biotechnology, concerted efforts are underway to end the widespread poverty and hunger, aiming at safety, food security, and sustainability in food.Later the plant is selected, regenerated, and evaluated under eld conditions to ensure that the genetic change is sta- ble and that the attributes of the new variety meet com- mercial requirements [2,3].

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