

Recombination System For Environmentally Safe Transgenic Turfgrass

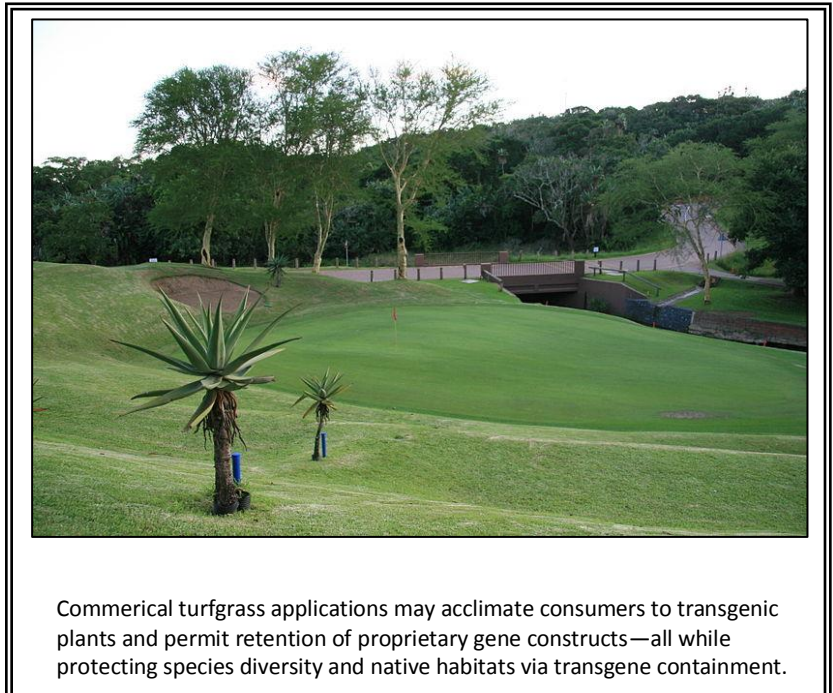
Description:

This technology presents a novel method of producing a transgenic hybrid plant having no or reduced sexual reproduction. This technology features the use of multiple site-specific recombination systems for use in transgene containment in plants. More specifically, this technology presents coordinated excisional DNA recombination by multiple (e.g. dual) recombinases to achieve excision of unwanted transgenic DNA as well as recombinase-coding sequences themselves by self-excision. The use of multiple site-specific recombination systems in combination with controllable total sterility technology (i.e. no or reduced sexual reproduction) provides a layered prevention system to control transgenic gene escape—a major public and environmental concern.

This technology allows the production of environmentally safe, clean transgenic plants with improved traits, enhancing the capability and public acceptance of transgenic technology for plant trait modification. Furthermore, this technology may be extended to other grasses, perhaps even food crops, to permit containment of transgenic constructs.

Benefits:

- Improved traits in commercial turf
- Environmentally friendly – protects species diversity
- Enhanced public acceptance
- Control of proprietary genes and constructs
- Potential for extension to other grasses, including food crops



Inventor: Hong Luo
Protection Status: Patent issued; # [8,237,015](#)
Licensing Status: Available for licensing
Additional Terms: Gene Containment, Plant Sterility, Turfgrass, Recombination, Transgenic
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