Use of AGLI I Gene to Suppress Seed Pod Shatter in Commercially Important Plants

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BACKGROUND

In many agricultural seed products—such as oilseed crops, grains and legumes, and seeds harvested specifically for planting—premature release of seeds prior to harvest results in serious losses. Swathing and other methods for minimizing harvest loses add to overall production costs. In addition, regardless of cost factors, the need for positive control of seed release may in future years become a desirable capability when genetically modified organism (GMO) crops become widespread, in order to assure satisfactory containment.

TECHNOLOGY DESCRIPTION

A scientist at UC San Diego has discovered a novel mode of pod shatter control. A genetic technology is utilized to prevent detachment of the ripening seeds from the funiculi within the pod. Thus, even when the pod valves are allowed to open naturally, the seeds contained within are retained, and must be harvested by manual detachment. This also affords a facile visual means of assessing ripeness, since the pods can be allowed to open, without risk of loss. Seeds in these opened pods may be dried in the field, and harvested by conventional mechanical combining.

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Plant Dehiscence Zone-Specific Promoter and Methods of Using Same
- Control Premature Seed-Pod Breakage in Crop Species
- Improved Pod Shattering and Controlled Seed Release Properties

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OTHER INFORMATION

CATEGORIZED AS

- **Agriculture & Animal Science**
  - Other
  - Plant Traits
  - Plant Varieties

RELATED CASES

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