Control Premature Seed-Pod Breakage in Crop Species

Tech ID: 19343 / UC Case 2004-178-0

BACKGROUND

Oil seed crops, such as canola (Brassica), often break their seed-pods prematurely. This premature seed release can be a result of harvesting techniques or adverse weather conditions. Premature release can cause from 10 to 50 percent crop loss in canola, using current harvesting techniques.

TECHNOLOGY DESCRIPTION

UC San Diego investigators have found a way to prevent the premature release of seed-pods from the crop species canola. Scientists have discovered the genes necessary for seed-pod breakage, and devised ways to control them. These Brassica genes, when introduced into Arabidopsis mutants with seed-pod defects, can fully rescue the Arabidopsis mutants. This technique also has been proven to work in canola.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	9,200,294	12/01/2015	2004-178
United States Of America	Issued Patent	8,143,481	03/27/2012	2004-178
United States Of America	Issued Patent	7,528,294	05/05/2009	2004-178

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Use of AGLI I Gene to Suppress Seed Pod Shatter in Commercially Important Plants
- Plant Dehiscence Zone-Specific Promoter and Methods of Using Same
- Improved Pod Shattering and Controlled Seed Release Properties

CONTACT

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INVENTORS

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OTHER INFORMATION

CATEGORIZED AS

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

RELATED CASES

2004-178-0