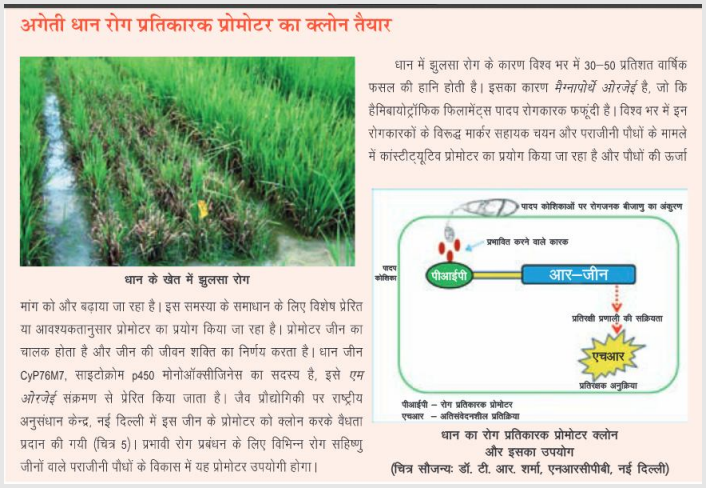
Name of the Tool	**Agbiotech Digest**
Home Page	
Logo	
URL	http://www.icar.org.in/en/taxonomy-term/127
Subject	Agriculture - India - Digest
Accessibility	Free
Language	English and Hindi
Publisher	Indian Council of Agricultural Research
Brief History	Agbiotech Digest provides their online archive from 2010.
Scope and Coverage	This digest played a pioneer role in ushering green revolution and subsequent developments in agriculture in India through its research and technology development related information. It covers various areas like Crop Science, Horticultural Science, Natural Resource Management, Agricultural Engineering, Animal Science, Fisheries Science, Agricultural Education, Agricultural Extension, Knowledge Management, Administration

	etc.
Kind of Information	Agbiotech Digest provides agricultural news articles. In this tool articles are available in both language, English and Hindi. Articles are available with title and short description. With each article photographs are also present. Two examples (one for Hindi and one for English) are given below through screen shot.

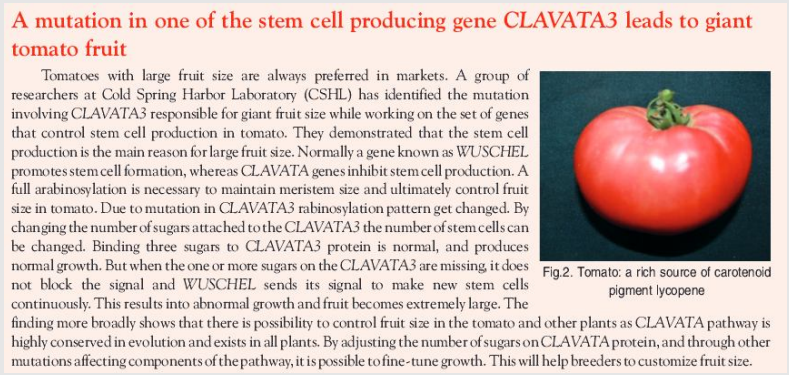


अगेती धान रोग प्रतिकारक प्रोमोटर का क्लोन तैयार

धान के खेत में झुलसा रोग

धान में झुलसा रोग के कारण विश्व भर में 30–50 प्रतिशत वार्षिक फसल की हानि होती है। इसका कारण *मैग्नापोर्थे ओरजेई* है, जो कि हैमिबायोट्रॉफिक फिलामेंट्स पादप रोगकारक फफूंदी है। विश्व भर में इन रोगकारकों के विरुद्ध मार्कर सहायक चयन और पराजीनी पौधों के मामले में कांस्टीट्यूटिव प्रोमोटर का प्रयोग किया जा रहा है और पौधों की ऊर्जा मांग को और बढ़ाया जा रहा है। इस समस्या के समाधान के लिए विशेष प्रेरित या आवश्यकतानुसार प्रोमोटर का प्रयोग किया जा रहा है। प्रोमोटर जीन का चालक होता है और जीन की जीवन शक्ति का निर्णय करता है। धान जीन CyP76M7, साइटोक्रोम p450 मोनोऑक्सीजिनेस का सदस्य है, इसे *एम ओरजेई* संक्रमण से प्रेरित किया जाता है। जैव प्रौद्योगिकी पर राष्ट्रीय अनुसंधान केन्द्र, नई दिल्ली में इस जीन के प्रोमोटर को क्लोन करके वैधता प्रदान की गयी (चित्र 5)। प्रभावी रोग प्रबंधन के लिए विभिन्न रोग सहिष्णु जीनों वाले पराजीनी पौधों के विकास में यह प्रोमोटर उपयोगी होगा।

धान का रोग प्रतिकारक प्रोमोटर क्लोन और इसका उपयोग
(चित्र सौजन्य: डॉ. टी. आर. शर्मा, एनआरसीपीबी, नई दिल्ली)



A mutation in one of the stem cell producing gene CLAVATA3 leads to giant tomato fruit

Tomatoes with large fruit size are always preferred in markets. A group of researchers at Cold Spring Harbor Laboratory (CSHL) has identified the mutation involving *CLAVATA3* responsible for giant fruit size while working on the set of genes that control stem cell production in tomato. They demonstrated that the stem cell production is the main reason for large fruit size. Normally a gene known as *WUSCHEL* promotes stem cell formation, whereas *CLAVATA* genes inhibit stem cell production. A full arabinosylation is necessary to maintain meristem size and ultimately control fruit size in tomato. Due to mutation in *CLAVATA3* rabinosylation pattern get changed. By changing the number of sugars attached to the *CLAVATA3* the number of stem cells can be changed. Binding three sugars to *CLAVATA3* protein is normal, and produces normal growth. But when the one or more sugars on the *CLAVATA3* are missing, it does not block the signal and *WUSCHEL* sends its signal to make new stem cells continuously. This results into abnormal growth and fruit becomes extremely large. The finding more broadly shows that there is possibility to control fruit size in the tomato and other plants as *CLAVATA* pathway is highly conserved in evolution and exists in all plants. By adjusting the number of sugars on *CLAVATA* protein, and through other mutations affecting components of the pathway, it is possible to fine-tune growth. This will help breeders to customize fruit size.

Fig.2. Tomato: a rich source of carotenoid pigment lycopene

Special Features	➢ Contact and feedback option available with proper form. ➢ Links to social networking sites like Facebook, Twitter, Google+ and so on. ➢ Recent news links also available. ➢ Different agriculture related links like ‘Agricat’, ‘Krishi kosh’ etc. ➢ Speeches of Indian famous personality present. ➢ Publications list available.
Arrangement Pattern	The pdf version links of digests are arranged according to volume and issue

	wise in chronological order. One can search their information according to different volume. e.g.:  Volume 6 Issue 2 July-September 2015 Volume 6 Issue 1 April-June 2015-Hindi Volume 6 Issue 1 April-June 2015 Volume 5 Issue 3 October-December 2014 Volume 5 Issue 2 July-September 2014 Volume 4 Issue 3 October-December 2013 Volume 4 Issue 2 July-September 2013 Volume 4 Issue 1 April-June 2013 Volume 3 Issue 4 January-March 2013
Remarks	It has played a major role in promoting excellence in higher education in agriculture.
Comparable Tools	➢ Biofuels Digest (http://www.biofuelsdigest.com/) ➢ Open Medicine Digest (https://blogs.biomedcentral.com/on-medicine/tag/open-medicine-digest/)
Date of Access	April 25, 2017