

PublisherInfo		
PublisherName	:	BioMed Central
PublisherLocation	:	London
PublisherImprintName	:	BioMed Central

## Green revolution

ArticleInfo		
ArticleID	:	4455
ArticleDOI	:	10.1186/gb-spotlight-20020419-01
ArticleCitationID	:	spotlight-20020419-01
ArticleSequenceNumber	:	121
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	2
ArticleHistory	:	RegistrationDate : 2002-4-19 OnlineDate : 2002-4-19
ArticleCopyright	:	BioMed Central Ltd2002
ArticleGrants	:	
ArticleContext	:	130593311

Jonathan B Weitzman

Email: jonathanweitzman@hotmail.com

---

The 'green revolution' refers to the development of improved crops, such as the high-yield semi-dwarf (*sd*) rice variant called IR8 that saved the world from a chronic food shortage in the 1960s. In the April 18 *Nature*, Sasaki *et al.* describe the molecular characterization of the IR8 variant (*Nature*, 2002, **416**:701-702). Mutation of the *sd1* gene is the reason for IR8's short stature. Sasaki *et al.* report that *sd1* encodes an oxidase enzyme involved in the biosynthesis of the plant hormone gibberellin. They found that *sd1* mutants respond to gibberellin and resume normal growth. The IR8 plants had reduced levels of gibberellin precursors, implicating the GA20ox oxidase in the reduced gibberellin biosynthesis. Sasaki *et al.* identified a new GA20ox gene and detected a deletion associated with the reduced semi-dwarf phenotype; the wild-type *GA20ox-2* gene could rescue *sd1* mutations. They conclude that the *SD1* gene encodes GA20ox-2, underlining the importance of the gibberellin metabolic pathway in regulating the character of plant crops.

## References

1. Green revolution: the way forward.
2. *Nature*, [<http://www.nature.com>]
3. 'Green revolution' genes encode mutant gibberellin response modulators.