

# New portal for plant genomics will support research into improved crops

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Today sees the launch of Ensembl Plants - a freely available web resource for plant genomics research - by the European Molecular Biology Laboratory's European Bioinformatics Institute (EMBL-EBI), in partnership with the Cold Spring Harbor Laboratory, USA. Ensembl Plants allows researchers worldwide to access and visualise the results of genome-scale experiments in different plant species. By pinpointing the genetic basis of beneficial characteristics such as drought and pest resistance, Ensembl Plants will make it easier for scientists to improve the productivity and health of crops - an important step towards meeting growing global food requirements over the coming decade.

Paul Kersey, leader of the Ensembl Genomes team at EMBL-EBI, said: "Ensembl Plants makes the results of genome-scale experiments available to the whole scientific community. The interface is familiar to researchers as it is already in use for the visualisation of information about the genomes of other species, making this new resource very accessible."

The first release includes genome data from new research funded by the Biotechnology and Biological Sciences Research Council (BBSRC). Richard Mott from the University of Oxford's Wellcome Trust Centre for Human Genetics, along with Paula Kover from the University of Bath, have sequenced the genomes of 17 strains of the thale cress *Arabidopsis thaliana*. *Arabidopsis* was the first plant to have its genome sequenced, and is an important reference point for applied plant research. In addition to providing a detailed catalogue of variation in the

*Arabidopsis* genome, the project serves as a pilot for the application of high-throughput sequencing methods to plant genomes.

Richard Mott said: "Now that we have 17 *Arabidopsis* genomes represented in the database we have an incredibly powerful tool for plant genetics research. This will allow us to identify useful genetic traits that are likely to be found throughout the plant kingdom." "Researchers across the world can then use that information to improve crops, contributing towards efforts to increase food production and adapt crops to changing climates" added Paula Kover.

Ensembl Plants has been co-developed by EMBL-EBI and the group of Doreen Ware who run the Gramene database at the Cold Spring Harbor Laboratory, USA. Gramene already utilises the Ensembl open source software system, originally developed by EMBL-EBI and the Wellcome Trust Sanger Institute, for studying the genetic differences between plant species. The Ensembl Plants and Gramene groups will collaborate to maintain a common set of reference databases, integrating experimental data generated on both sides of the Atlantic.

The launch of Ensembl Plants completes the set of new Ensembl-powered portals (for bacteria, protists, fungi, and invertebrate metazoa) launched by EMBL-EBI during 2009.

More information: Ensembl Plants: [plants.ensembl.org](http://plants.ensembl.org)"  
target="\_blank">[plants.ensembl.org](http://plants.ensembl.org)

Source: European Molecular Biology Laboratory ([news](#) : [web](#))

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