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OREGIN

Rothamsted Research, University of Warwick, University of York

The Defra-funded Oilseed Rape Genetic Improvement Network (OREGIN) provides a pre-breeding pipeline to integrate sustainability traits into Oilseed Rape cultivars.

OREGIN aims to generate, gather, collate and disseminate information and genetic resources for the benefit of scientists, breeders and end-users. Components of the OREGIN pre-breeding platform also provide a foundation for, and contribute significantly to, other projects working toward the same overall objective: improving sustainability through crop genetic improvement.

OREGIN has assembled key genetic resources to enable researchers and breeders to search the relevant gene pool for enhanced traits to incorporate into breeding programs. This includes establishing Diversity Fixed Foundation Sets for Brassica napus (BnaDFFS) and five new mapping populations based on agreed useful traits. Alongside this, the project is using two well described mapping populations (BnaTNDH and BnaTVSL). These resources are being used by the OREGIN

partners to investigate important QTL; as well as providing a link to other projects and improving genetic understanding of traits of inter-

est to researchers and breeders alike. All resources are made available to the wider community.

In 2009 OREGIN established small-scale demonstration trials, initially over two seasons (2009/10 and 2010/11), at Rothamsted Research to observe, sample and collect baseline information describing plant performance and properties of BnaDFFS. These trials were made available to the research community to visit and assess. These were extremely successful: over a two year period, over 200 people visited the trails, and over 120 traits were scored. A similar trial is now being grown, again at Rothamsted.

Work is also being done to capture a variety of data resources for use by the project and the wider oilseed rape community. These are being curated into the InterStoreDB framework where Trait, Population and Genetic data can be captured, integrated and presented online via web interfaces.

For more information about this network or to access some of the resources described above, please visit www.oregin.info.

The OREGIN academic partners are Rothamsted Research, The University of Warwick, and the University of York.



UK Brassica



Research Community

www.ukbrc.org.uk