THE US WHEAT AND BARLEY SCAB INITIATIVE WEB SITE

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ABSTRACT

The US Wheat and Barley Scab Initiative (USWBSI) web site(http://www.scabusa.org) is an integral part of the USWBSI. The site is an important information resource for all aspects of the Initiative, IncludingResearch, News, Forums, and Literature. The site includes an online searchable database containing detailed information on all Projects, Grants, Institutions, Documents, Committees, and Contacts associated with the Initiative. Maintenenance of the web site involves database development, web programming, and system administration. Each section of the web site is constantly being improved and expanded. Some key goals for improvement of the site are to enhance the Research section (results, methods, online informatics resources, etc.), and to facilitate communication among Initiative members, Scab researchers, wheat/barley breeders and growers, and others affected by Scab. Another key goal is to integrate the USWBSI web site more closely with GrainGenes (http://wheat.pw.usda.gov), an online database of molecular and phenotypic information for the Triticeae. This poster provides an overview of the USWBSI web site, solicits ideas and suggestions for future improvements to the site, and addresses the use of the GrainGenes web site as a resource for Scab research.

GRDC STRATEGIC INITIATIVE ON CROWN ROT, COMMON ROOT ROT AND FHB IN AUSTRALIA

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ABSTRACT

Crown rot caused by the fungus *Fusarium pseudograminearum* is a major constraint to winter cereal production in Australia. Although it is generally more common in the northern cropping belt, it can occur throughout all mainland cereal growing areas and is estimated to cost the Australian grains industry $56 million per annum. Common root rot, caused by the fungus *Bipolaris sorokiniana*, is often found in association with crown rot and has been estimated alone to cost growers $22 million per annum. Losses from Fusarium head blight (FHB) caused predominantly by *Fusarium graminearum* have not been estimated in Australia. However, severe FHB on the Liverpool Plains in northern NSW in 1999 and 2000 inflicted yield losses of around 20-100% with associated downgrading in quality. Outbreaks of FHB have occurred sporadically in Australia and have also been associated with the rainsplash of *F. pseudograminearum* macroconidia formed on lower nodes into heads. A strategic initiative on crown rot, common root rot and FHB with funding from the Grains Research and Development Corporation (GRDC) was formed in 2002 to address these disease problems in the Australian grains industry. The initiative encompasses seven projects across four states with the aims of: i) providing an integrated and coordinated approach to the management of these diseases, ii) facilitating communication and collaboration between research groups in Australia and internationally, and iii) extending research outcomes to growers. Research projects are:

1. Epidemiology and pathology of Fusarium in relation to crown rot and FHB - Dr Sukumar Chakraborty, CSIRO-Plant Industry, St. Lucia, Brisbane.
2. Management of Fusarium diseases and common root rot of cereals in the northern cropping zone – Dr Steven Simpfendorfer, NSW Agriculture, Tamworth.
3. Genetic approaches to resistance to Fusarium and Bipolaris in wheat and barley - Dr Graham Wildermuth, Queensland Department of Primary Industries, Toowoomba.
4. Crown rot management in durum and bread wheats for the southern region - Dr Hugh Wallwork, South Australian Research and Development Institute, Adelaide.
5. Development of a molecular diagnositic for crown rot - Dr Alan McKay, South Australian Research and Development Institute, Adelaide.
6. Epidemiological principles, inoculum dynamics and nitrogen effects on crown rot - Dr David Backhouse, University of New England, Armidale.
7. Intermediate hosts and the management of crown rot and head blight - Professor Lester W. Burgess, University of Sydney.