

## **BASF licenses CRC for Polymers soil wetting technologies**

- **Australian grain producers to gain from improved water efficiency as five-year research collaboration reaches final stages**
- **New range of wetting agents significantly improve water infiltration in the soil, reducing run-off losses and increasing the extent of moisture retention**
- **New diagnostic soil test provides enhanced reliability to user decisions based on soil characteristics and seasonal moisture expectations**

Melbourne, Australia – June 29, 2016 – BASF has licensed new soil wetting technologies co-developed with the Cooperative Research Centre for Polymers (CRCP) to help Australian farmers improve water efficiencies and increase yields. The wetting agents are applied in a band to the surface soil directly above the seed, concurrently with the seeding operation, where they significantly improve water infiltration in the soil, reducing run-off losses and increasing the extent of moisture retention in the developing root zone.

More than five million hectares of Australian soils used for cropping are susceptible to water repellence. This water repellence causes rainfall run off, poor furrow efficiencies, patchy seed germination and therefore reduced crop yields.

In 2012, BASF commenced a five-year collaboration with the CRCP to develop a new range of polymers to help farmers better manage water and nutrients in soils. The collaboration, which also received funding support from the Grains Research and Development Corporation (GRDC), brought together an interdisciplinary team of material researchers, biologists and agricultural scientists from BASF with experts in physical chemistry, soil and plant science, and biophysics from Swinburne University of Technology, the University of Western Australia, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the University of New England. The

research was led by Professors David Mainwaring (Swinburne University), Daniel Murphy (University of Western Australia) and Alexander Wissemeier (BASF).

“The research included laboratory studies on the effects of wetting agent formulation on the interaction of water with contrasting Australian soil types ranging from severely water repellent through to soils that showed only low water repellence. This led to the development of a new range of soil wetting agents and a diagnostic soil test, allowing farmers to select the most effective wetting agent based on the properties of their soil,” explains Professor Wissemeier.

Professor Mainwaring points out, “The soil diagnostic developed in our research provides enhanced reliability to user decisions in the agricultural community based on soil characteristics and seasonal moisture expectations.”

The final stages of the collaboration involve further evaluation of the effectiveness of the technology in glasshouse germination trials, using a range of soil types, and field trials currently being conducted at wheat production belts in Western Australia, South Australia and Victoria.

Professor Murphy adds, “Throughout the wheat belt production gains can still be made through improved water and nutrient use efficiency. The new soil wetting agents will aid farmers by capturing rainfall that is plant-available while the soil diagnostic improves the reliability of the wetting agent selection to soil type. Together this will benefit the Australian grains industry by narrowing the gap between actual and attainable yield.”

The CEO of the CRCP, Dr Ian Dagle, summarises “This is yet another example of the great value of the Australian Government’s Cooperative Research Centres Programme. It has allowed us to address a major issue for Australian grain producers by assembling the best multidisciplinary team of researchers from across five organisations, and to provide our commercial partner, BASF, with technologies that it can readily make available to interested farmers.”

### **About the CRC for Polymers**

The CRC for Polymers is an incorporated joint venture between companies, universities and government research organisations, and is supported under the Australian Government's Cooperative Research Centres Programme with A\$14.5 million in funding received for its operation from July 2012 to June 2017. BASF's research project is part of the centre's activities, and other partners in this project include Swinburne University for Technology, University of Western Australia, Commonwealth Scientific and Industrial Research Organisation, University of New England and the Grains Research & Development Corporation (GRDC).

### **About BASF's Crop Protection division**

With sales of more than €5.8 billion in 2015, BASF's Crop Protection division provides innovative solutions for agriculture, turf and ornamental plants, pest control and public health. Our broad portfolio of active ingredients, seed treatments, biological controls, formulations and services optimizes efficient production of high quality food and protects against post-harvest loss, damage to buildings and the transmission of disease. By delivering new technologies and know-how, BASF Crop Protection supports the effort of growers and pest management professionals to make a better life for themselves and society. Further information can be found on the web at [www.agro.basf.com](http://www.agro.basf.com) or on our [social media channels](#).

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