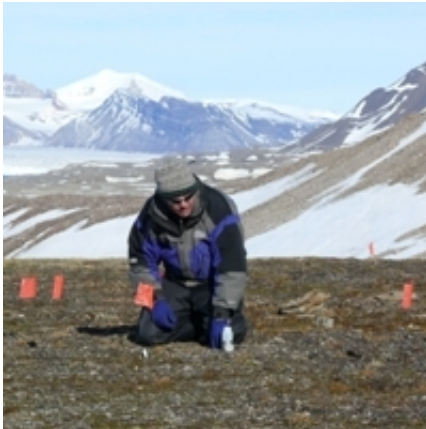


New polymer research aims to boost dryland crop productivity

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The fact that 30 per cent of Australia's cropping land does not retain water and produces only 10 per cent of the nation's broad-acre crops could be about to change.

A team of researchers, including some from The University of Western Australia, is set to create a range of advanced polymers that will help farmers better manage water and nutrients in the soil.

Professor Daniel Murphy, who is the Chair in [Soil Science](#) at UWA's School of Earth and Environment and member of the UWA Institute of Agriculture, is part of a joint international research project involving German-based BASF Crop Protection and the Melbourne-based

Cooperative Research Centre for Polymers.

BASF Crop Protection and the CRC for Polymers recently signed a cooperation agreement to develop new products to improve dryland productivity.

"The CRC for Polymers brings together world-class teams leading researchers from the industry, Australia's universities and government laboratories," CRC head Dr Ian Dagley said.

"With BASF's expertise in agronomy and chemistry, this collaboration marks an important step in [building technology](#) and innovative leadership that demonstrates our commitment to farmers in Australia and around the world."

Professor Murphy joins an interdisciplinary team of material researchers, biologists and agricultural scientists who aim to produce products such as sprays for non-wetting soils and polymers to control the distribution of [soil moisture](#).

Growing conditions in Australia are characterised by very dry spells coupled with bouts of intense rainfall - an excellent backdrop for this research, Professor Murphy said.

*A polymer is a large molecule composed of repeating structural units. These sub-units are typically connected by [chemical bonds](#). Although the term [polymer](#) is sometimes taken to refer to plastics, it encompasses a large class of compounds consisting of natural and [synthetic materials](#) with a wide variety of properties.

Provided by University of Western Australia

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