

Australia develops unique building to grow precision plant research

09 October 2024 | News

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A high-tech building with rooms to mimic environments from rainforests to deserts will help Australian plant scientists and industry improve crop productivity and secure future food supplies.

The University of Queensland's \$65 million Plant Futures Facility is fitted out with technology to finely control temperature, light intensity, light quality, humidity and CO2 concentration, allowing researchers to better predict plant responses to future climates.

Professor Deborah Terry AC, UQ Vice-Chancellor said the building - created specifically for plants - was unique in both scale and precision in the southern hemisphere.

"This facility is an important national asset and reinforces the position of Australia, Queensland and UQ as a leader in plant science research," Professor Terry said.

"Being able to accurately control every aspect of the growing environment opens up opportunities for precision plant science and to fast track experiments".

Construction of the 6-floor Plant Futures Facility started at the St Lucia campus in late 2021 and the first seeds will be brought into the facility this month (October) after a rigorous commissioning period.

As plants grow in the rooms, cameras and sensors will capture images and data for analysis.

Nine rooftop glasshouses, four for temperate plants and five for tropical plants help restore some of the capacity lost in the 2022 Brisbane River flood.

Between the 3 floors of grow rooms, glasshouses and laboratories are 2 levels of mechanical and computer equipment.