



BEST PRACTICES FOR AGRICULTURE UNDER CLIMATE CHANGE

A global team including researchers from The University of Western Australian have determined the best practices for managing agricultural land while minimising environmental impacts.

The study, recently published in the journal *Land Degradation and Development*, evaluated greenhouse gas emissions produced by different agricultural practices per unit of land, crop yield, and economic return.

Through a review of more than 100 papers published in the last ten years, the research team determined six key strategies for managing agricultural land under climate change.

Professor Kadambot Siddique from UWA's Institute of Agriculture and School of Agriculture and Environment was a co-investigator of this research with collaborators from China, Canada, and the US.

"Incorporating pulse (grain legume) crops into rotations to enhance biological N₂-fixation and reduce fertiliser use is one of the six strategies we have identified", Professor Siddique said.

"We also recommend diversifying and intensifying crop rotations, enhancing fertiliser use efficiency, adopting low or no soil-disturbance practices, and enhancing soil carbon sequestration".

Professor Siddique said that this research has large-scale implications for the future of agriculture land management under climate change.

"Each of these land management practices and cropping tactics are successful on their own, but combining them into an integrated system will lead to an even greater outcome", Professor Siddique said.

"With the support of relevant policies and industry intervention, this integrated systems approach will enhance productivity and profitability of agricultural lands and minimise greenhouse gas footprints".

The findings were published in the paper *'Decoupling' land productivity and greenhouse gas footprints: A review* in the journal *Land Degradation and Development*.

MEDIA REFERENCE

[Hackett Professor Kadambot Siddique](#) (The UWA Institute of Agriculture and School of Agriculture and Environment) (+61 8) 6488 7012 / (+61 4) 11 155 396

[Laura Skates](#) (Communications Officer, The UWA Institute of Agriculture) (+61 8) 6488 3756