Fighting herbicide-resistant weeds: Statin molecule found in fungi (and common cholesterol medication) could be 'as effective as glyphosate'

Farmers are battling increasing weed resistance to common broad-spectrum herbicides such as glyphosate, but Australian research could be a game changer.

The research by Western Australia's Curtin University Centre for Crop and Disease Management has focused on using molecules found in fungi, the same ones found in cholesterol medication, which could be as effective as mass-produced glyphosate.

Joel Haywood is the lead author of the research and has been working on the project for more than five years.

"As weed resistance increases, there are more issues for farmers and in yields and therefore we need new chemical compounds to overcome this resistance in weeds," Dr Haywood said.

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The compounds that were found to work as a herbicide are called statins, and eradicate weeds by inhibiting an enzyme called HMG-CoA reductase.

When the enzyme is inhibited, it can kill the plant as it reduces cholesterol levels, lipids, vitamins, and other hormones.

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There has not been a broad-spectrum herbicide mode of action introduced since glyphosate was first introduced nearly 50 years ago.

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It could take up to 15 years for the chemical compounds to get to market, however, Dr Haywood hoped to find more organic compounds, making the product available sooner.

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