

Validation of the mustard root bioassay for detection of new Group 2 herbicides

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SPG Contributions	Project Status	Duration/Timeline of Project (Year to Year)	Total Project Cost
\$39,100.00	Completed	May 2009 – December 2010	\$39,100.00

Project Description

To evaluate suitability of the mustard root length inhibition bioassay for detection of pyroxsulam and thienencarbazone residues in soil; to assess the effect of soil properties on phytotoxicity of these two herbicides in different soil types from the Canadian prairies; to study pyroxsulam and thienencarbazone dissipation in soils under laboratory conditions.

Outcome

This study showed that the mustard root length inhibition bioassay previously reported for flucarbazone detection in soil is suitable for determination of pyroxsulam and thienencarbazone residues and that it can be used for investigation of behavior of these herbicides in soil.

Research Objective

OBJECTIVE 1

To evaluate suitability of the mustard root length inhibition bioassay for detection of pyroxsulam and thienencarbazone residues in soil.

OBJECTIVE 2

To assess the effect of soil properties on phytotoxicity of these two herbicides in different soil types from the Canadian prairies.

OBJECTIVE 3

To study pyroxsulam and thienencarbazone dissipation in soils under laboratory conditions.