

SESSION 2008

BREVET DE TECHNICIEN SUPERIEUR AGRO-EQUIPEMENT

LANGUE VIVANTE ETRANGERE EPREUVE D'ANGLAIS

**DUREE : 3 HEURES
COEFFICIENT : 1**

L'usage du dictionnaire bilingue est autorisé
Calculatrices et traducteurs électroniques sont interdits

Dès que le sujet vous est remis, assurez-vous qu'il soit complet.
Le sujet comporte 3 pages, numérotées de 1 à 3.

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Lower herbicide use with new guidance technique

By Mike Williams

A NEW TECHNIQUE that combines spraying and hoeing has the potential to cut herbicide costs by at least 70%, according to a development team at the Silsoe Research Institute.

Garford's Robocrop inter-row hoe uses a camera-based guidance System developed at Silsoe more than 10 years ago and it has enjoyed considerable success.

More than 60 have been sold, mainly for vegetable and organic crops, with the auto guidance System allowing faster, more accurate inter-row weed control than a manually steered version.

HERBICIDES

A limitation of hoeing is that it does not control weeds growing in the crop rows, but an SRI research team has shown the problem can be solved by adding band spraying equipment to apply selective herbicide to the crop rows.

The combination of hoeing and spraying gives efficient control with a significant reduction in herbicide costs, according to the SRI project leader, Nick Tillett.

"We know that we can reduce application rates to below 30 litres/ha where you would expect to use 100 litres/ha spraying conventionally," says Mr Tillett.

"But we need to do much more development work and I am sure we can make further reductions. My own personal target is 10 litres/ha."

Adding band spraying could make vision-guided hoeing attractive for weed control in cereals and other high-acreage crops, says Mr Tillett, especially on Garford's new 12m triple-unit Robocrop hoe.

"There's great potential but a lot of development work is needed before the equipment is ready for the market. We need to find a new type of nozzle to produce a narrow band of spray."



But the project will not be completed by SRI. Last year's closure announcement means all the research staff will leave before the end of this year. Nick Tillett and one of his colleagues plan to start their own research and development company specialising in guidance technology for field equipment: the hoe-and-spray combination will be a priority project.

DEVELOPMENT

Philip Garford, whose company makes the Robocrop hoe, sees the addition of band spraying as a major development in weed control, and he is concerned that the future development work should remain in this country after the SRI closure.

"Stopping this research project at the SRI is bad news for the farming industry," he says.

"It is important that this type of work can continue in this country because otherwise it will go over seas.

"A lot of farmers here and in other countries are concerned about the increase in herbicide tolerance in a number of important weeds. The combination of hoeing and band spraying is probably the best way to deal with the problem."

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When fitted with experimental band-spraying equipment, Garford's camera-guided Robocrop inter-row hoe has been shown to have the potential to save up to 70% in herbicide costs.

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I - COMPTE-RENDU : 12 points

Rédiger **en français** le compte-rendu de l'article en 250 mots. (plus ou moins 10%)

II - EXPRESSION : (en anglais) 8 points

Les écologistes reprochent aux agriculteurs de trop pulvériser. Pensez-vous que l'on puisse faire une agriculture plus respectueuse de l'environnement tout en conservant un rendement satisfaisant ?

150 mots (plus ou moins 10 %)

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