

# BREVET DE TECHNICIEN SUPÉRIEUR AGROÉQUIPEMENT



**ANGLAIS**

Durée : 3 heures

Coefficient : 1

- L'usage du dictionnaire bilingue est autorisé
- L'usage de la calculatrice est interdit.

Ce sujet comporte 2 pages

Barème :	COMPTE-RENDU	:	11 points
	EXPRESSION ÉCRITE	:	7 points
	PRÉSENTATION, ORTHOGRAPHE, RÉDACTION	:	2 points

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# Gas-fuelled desiccator's a winner

By Andy Collings

POTATO growers looking to desiccate their crops now have a chemical-free system to use instead of sulphuric acid or other off-the-shelf products.

And it claims to be cheaper, create a faster skin-set and allow overall better control when harvesting crops.

Mathew Sillifant of Drackendon Agriculture, believes he could be on to a winner with his Greenburner desiccator.

"The problem with desiccating relatively small areas of specialist potato crops — crops where desiccation timing can be critical — is twofold," he explains. "The first is arranging for a contractor to arrive just at the right time, and the second is getting a contractor to apply chemical to what might only be a relatively small acreage."

As its designation suggests, the Greenburner employs burning propane gas to create a high temperature; not that the tops are burned off directly — the flames are used to heat a grill which then emits infra-red heat to destroy plant cells. Attached to the rear of a tractor, the unit is used in conjunction with a front-mounted topper.

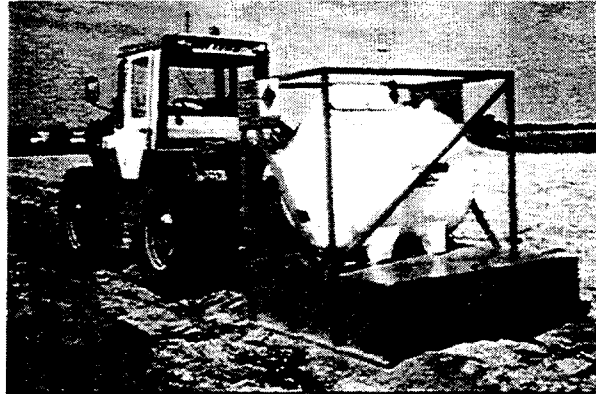
First view of the Greenburner belies the development which has clearly been put into its production. On top of the hood is a 1500-litre propane tank which feeds gas down to a row of 14 burner jets.

When lit, these play flames onto a grill unit which cover the sides and underside of the hood. Insulation, the same material used to protect NASA's space shuttle's exterior, is packed between the hood and the grill.

In operation, the gas is turned on to a "pilot light mode" and the jets lit manually. When the tractor starts to move down the row the gas is turned up to full to create an 850C+ temperature — the temperature displayed and recorded on a console in the cab.

A single bed unit, beds with widths from 2 to 3 metres can be accommodated in one pass with outputs of up to 25 acres/day possible.

Mr Sillifant says that it is still too early to be precise about the exact speed/temperature combination required for any given variety but, nonetheless, he reports some promising results.



*Greenburner desiccator. Running on skids the hood straddles the potato bed, killing tops by infra-red heat generated from 14 propane burners.*

"This year so far, we've used the burner to desiccate over 1000 acres. On just one occasion it was necessary to go through the crop twice due to the particularly leafy variety, but overall it has been a success," he insists.

With the current approach to using less pesticide it is perhaps no surprise that such a machine should catch the attention of a supermarket chain anxious to promote all things "green".

"The attractions are clear," says Mr Sillifant. "Potatoes which can be shown to have been harvested without the use of chemicals have got to have the edge on other produce."

That is to ignore all the other chemical applications the crop may have received. However, there are also advantages to be had for the grower. On Wantisden Hall Farms, near Woodbridge, Suffolk,



*Mathew Sillifant (left) and Wantisden Hall Farms' manager Mike Fielden. "Skin-set is much quicker when the Greenburner is used," says Mr Fielden.*

where some 200ha (500 acres) of potatoes are grown each year, farm manager Mike Fielden is pleased with the results.

"We aim for the competitive specialist market," he says. "If by using the Greenburner we can harvest earlier than other growers we can cash in on the demand."

"It also means we can be in total control of our harvest — desiccating small areas in response to changes in the market. In my experience, the Greenburner system speeds up skin-set to the point where we can begin harvesting three to four days earlier."

In terms of operating costs, the Greenburner uses about £11.25-£15/ha (£4.50-£6/acre) in gas. With a tractor/topper and operator Mr Sillifant puts the total cost at about £70/ha (£28/acre). Acid application, he says, can be as much as £117.50/ha (£47/acre).

And the use for the unit could extend beyond that of potatoes. Trials this year are destined to see if onion stems can be sealed with the system as an alternative to the expensive and time consuming exercise of lifting and windrowing.

"We intend to make 60 units for next year. This number will enable my company to advise growers on correct procedures."

Price of the unit is £9850. ■

Farmers Weekly 19 September 1997

Lexique : skin-set : maturation  
topper : décolleteuse  
AGLVE An

## I - COMPTE-RENDU

Vous rédigerez **en français**, le compte rendu de cet article en 350 mots.

## II - ESSAI

Vous rédigerez **en anglais** un bref article d'environ 150 mots environ traitant de l'utilisation des nouvelles technologies dans le domaine agricole ayant pour objectif de respecter l'environnement. Vous vous appuyerez sur des exemples concrets.