

GRASSLAND DEVELOPMENT CENTRE CANOLFAN DATBLYGU TIR GLAS

Sefydliad Gwyddorau Biolegol, Amgylcheddol a Gwledig
A Gwledig

Canolfan Datblygu Tir Glas, Gogerddan
Aberystwyth, Ceredigion SY23 3EB
Ffôn: (01970) 823000/Ffacs: (01970) 823155
E-bost: hym@aber.ac.uk

Institute of Biological, Environmental
& Rural Sciences

Grassland Development Centre, Gogerddan
Aberystwyth, Ceredigion, SY23 3EB
Tel: (01970) 823000/Fax: (01970) 823155
Email: hym@aber.ac.uk

603.01

Why Use A Slurry Injector?

Nitrogen Use Efficiency

Slurry contains lots of nitrogen (N) up to 3kg/m³ – half of this is available immediately for uptake by grass. In summer up to 90% of this available N is lost to the atmosphere as ammonia if it is surface spread. Injecting slurry into the soil ensures that the nitrogen is used by grass and not wasted.

How Much?

In a normal application of 39m³/ha (3500gl/acre) of 6% dry matter dairy slurry this would mean a saving of 25kgN/ha (20 units/acre). At current fertiliser prices of £265/t for 34.5%N this is worth **£20/ha or £8/acre**.

In late winter/early spring there are less atmospheric losses from surface applied slurry so the economic benefits of injecting may be slightly reduced

Clean Grass

Spreading slurry in summer can often result in grass leaves being covered in slurry. This means poorer grazing with lower intakes and also the potential of taking undesirable bacteria like clostridia into the silage clamp at 2nd cut. Injecting slurry means less risk of contaminating grass – a quicker return to grazing paddocks and less concerns about poor silage.

Accurate Applications

Injector systems put the slurry out with an even spread with no risk of contaminating field margins. With little slurry on the surface there is minimal risk of surface run-off.

Improving Soil Structure

Using an injector can help in breaking up soil compaction caused by heavy machinery traffic and poaching. Injection also eliminates the damage to soils and worm populations that can be caused by slurry puddling at the soil surface

More Spreading Days

Because you aren't smothering grass and contaminating swards you can apply slurry closer to grazing and silage. Also because injecting reduces the odour you can 'safely' apply slurry without upsetting your neighbours.

Alternative slurry equipment

In addition to shallow injectors there are also deep injection machines that can handle larger volumes of slurry – but are restricted to certain soil types. Band spreaders trail a hose to apply slurry in strips on the surface. They can only be effectively used on short grass and still leave the slurry vulnerable to losses. Trailing shoe machines operate with taller grass covers and leave the slurry in lines under the sward to prevent ammonia losses. Both the trailing shoe and band spreader can be used on any soils – but like the shallow injector they are limited to applications below around 35m³/ha (3200gl/acre).

GRASSLAND DEVELOPMENT CENTRE CANOLFAN DATBLYGU TIR GLAS

**Sefydliad Gwyddorau Biolegol, Amgylcheddol a Gwledig
A Gwledig**

Canolfan Datblygu Tir Glas, Gogerddan
Aberystwyth, Ceredigion SY23 3EB
Ffôn: (01970) 823000/Ffacs: (01970) 823155
E-bost: hym@aber.ac.uk

**Institute of Biological, Environmental
& Rural Sciences**

Grassland Development Centre, Gogerddan
Aberystwyth, Ceredigion, SY23 3EB
Tel: (01970) 823000/Fax: (01970) 823155
Email: hym@aber.ac.uk
