

MICRON

Micron Sprayers Limited,

Bromyard Industrial Estate, Bromyard,

Herefordshire, HR7 4HS, U.K.

Tel: +44 (0)1885 482397 Fax: +44 (0)1885 483043

E-mail: micron@micron.co.uk URL: <http://www.micron.co.uk>

Mr E Liegeois
European Commission
DG ENV
Unit B.4
Rue de la Loi 200 (Office BU 5 – 2/158)
1049 Brussels
Belgium

Our Ref: TEB/jad

Your Ref:

Date: 12th July 2004

Dear Mr Liegeois

Re: EU Thematic Strategy on the Sustainable Use of Pesticides

Thank you very much indeed for meeting with Mr Clayton and myself last week. We are both extremely grateful to you for enabling us to raise the issues we are concerned about and for the open discussion.

We did advise some general reservations we had about the overall development of the Thematic Strategy in our response to the BiPRO questionnaire (enclosed). However, our main interest is in the proposed measure for aerial spraying (on which Mr Clayton will be writing separately) and the proposed technical checks on sprayers.

Regarding the technical checks on sprayers we understand that the intention is to use CEN standards to underpin these. EN 907 on sprayer safety is already a mandatory requirement (although there is still some debate regarding boom folding height) and we understand further possible measures are:

- 1) mandatory certification of sprayers before they are placed on the market; and
- 2) mandatory inspection of sprayers in use.

We would point out that there are major potential problems in mandatory certification of sprayers before they are placed on the market if this relies on EN12761. EN12761 contains specific requirements for distribution, measured by patternation, and droplet size that are based on one nozzle type and therefore discriminate against other nozzle types e.g. twin fluid nozzles, rotary atomisers and air shear/pneumatic atomisers – even though other nozzle types have often shown significant environmental advantages in allowing use of reduced dosages and volumes (and can also reduce spray drift potential) e.g. see enclosed papers on better



INVESTOR IN PEOPLE

Directors:

T. E. BALS; G. S. POVEY, C.Eng.;

J. S. CLAYTON; H. BEDDOWS;

D. P. SPACKMAN.

Registered Office: Micron Sprayers Ltd, Bromyard
Registered in London No.529633

MICRON

spray targeting and drift control with one particular rotary atomiser which would not be approved for use under the requirements of EN12761. It should be noted that spray equipment that complies with the requirements of EN12761 has been demonstrated in certain circumstances to result in spray losses to the environment of over 90%!

The patterning requirement in particular is very controversial and led to significant debate within CEN TC 133 WG3 – and is still the subject of disagreement. No studies or scientific evidence were ever produced in favour of the patterning requirement set in EN12761 and the UK British Standards Institute produced a position paper (enclosed) regarding the dangers of reliance on patternator measurements, with no evidence ever produced against the arguments contained therein. In particular please note that the patterning requirement contained in EN12761 discriminates against various techniques that improve spray targeting and can thus reduce pesticide usage and environmental impact, most notably variable rate application across the spray boom for selective treatment of pests, the angling of sprays to increase deposition on vertical targets e.g. grass weeds, and the use of devices such as droplets which release spray laterally within the crop to target spray directly where it is required. Moreover, a static patterning test is really only a laboratory nozzle test, and ignores dynamic real world factors that determine distribution on a crop (generally a complex 3D target) in the field. It should be noted that use of vertical patternators for bush/tree crop application was specifically excluded from EN12761 since a 4 year scientific study undertaken in Germany had shown that they were ‘not appropriate for specific adjustment of sprayer to particular crop situation. It is concluded that this equipment should not be a generally required test stand for periodic sprayer inspections’ (I enclose this study for your information).

Please note that the droplet size requirement in EN12761 also has no scientific justification and could inhibit development of application techniques and equipment which could reduce pesticide use (with finer sprays generally providing better biological efficacy and thus allowing use of reduced dosages). In fact the measure contained in EN12761 contradicts existing pesticide clearances in some European countries which have been assessed as safe for the environment. As the enclosed 1998 letter from Zeneca Agrochemicals UK states ‘the use of a coarser spray may mean higher rates of active ingredient would have to be used to get the required level of control’. We believe this is completely contrary to the stated aims of the Thematic Strategy, which are generally to optimise the use of pesticides. Also please note that use of coarse sprays results in potentially greater soil contamination, and this will result in adverse effects on beneficial flora and fauna/insects as well as a potential increase in leaching and subsequent contamination of groundwater supplies.

Please also note that most EU countries do not currently require certification of sprayers before they are put on the market. This measure is therefore likely to be very costly (with the need for introduction of complex testing and administrative systems) and disruptive, with disagreements still existing on EN12761 should this be a requirement for certification (as stated above). Moreover, if it is left to individual member states to determine whether to



INVESTOR IN PEOPLE

Directors:
T. E. BALS; G. S. POVEY, C.Eng.;
J. S. CLAYTON; H. BEDDOWS;
D. P. SPACKMAN.

Registered Office: Micron Sprayers Ltd, Bromyard
Registered in London No.529633

MICRON

implement mandatory certification there are likely to be problems regarding restraints to trade.

We thus believe that whilst mandatory certification may be a desirable objective in the future it should not be introduced at present. Moreover, it should be ensured that any future certification scheme/requirement should not discriminate against innovative application techniques or equipment offering environmental benefits.

However, we do believe that inspection of sprayers in use could easily be introduced as a technical check, to ensure that sprayers are in a good/safe condition (we believe that this should be allied with operator training schemes including calibration and ongoing maintenance procedures). The base standard for this could be EN13790, which allows for nozzle flow rate measurement or patterning to check nozzle performance and thus does not discriminate in favour of a particular nozzle type. It should be noted that a further significant argument against a requirement for patterning measurement for inspection of sprayers in use is that this would basically eliminate the possibility of on-farm testing of larger sprayers (as currently practiced in various countries) which would not only dramatically increase the cost of sprayer testing but could have negative environmental consequences e.g. transporting a leaking sprayer to a test centre. Inspection of sprayers in use is now well established in most European countries, either on a mandatory or voluntary basis, and we believe that most countries have tried to ensure compliance, or at least compatibility, with EN13790 (this is certainly the case in the UK). We therefore believe that this measure could be introduced relatively cheaply and easily and, combined with good operator training, would help improve sprayer performance and reduce the risk of incidents with severe environmental impacts and/or misuse. Operator training in mixing and filling and cleaning procedures would also help prevent point source contamination – which is now acknowledged as providing risks of groundwater contamination an order of magnitude greater than spray drift.

We would reiterate that considerable R & D is still required on application techniques and equipment for dose optimisation within IPM/ICM systems (allied with the development of decision support systems). Low volume application techniques and equipment (to enable greater spraying productivity to allow optimum spray timing) and variable rate application within precision farming systems are two key areas for work – with the demonstrated capability in certain circumstances to reduce pesticide use by over 50%. We will write further on this topic.

Finally, we have been advised since we met you that there are still certain European countries that do not allow use of dosages lower than those recommended on the label. This should definitely be changed to help promote IPM/ICM and low input farming.

With respect to developing indicators to measure the success of the Thematic Strategy, please find enclosed, as promised, the latest UK Pesticides Forum Annual Report showing the indicators currently in use in the UK.



INVESTOR IN PEOPLE

Directors:
T. E. BALS; G. S. POVEY, C.Eng.;
J. S. CLAYTON; H. BEDDOWS;
D. P. SPACKMAN.

Registered Office: Micron Sprayers Ltd, Bromyard
Registered in London No.529633

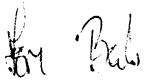
MICRON

For your information I also enclose a couple of papers I have written on the potential dangers of regulation and a couple of background papers on Micron's development of the Controlled Droplet Application technique.

I trust this information is of use and please do not hesitate to contact us should you have any questions or require any further information.

With all best wishes, I remain,

Yours sincerely



Tom Bals
Chairman

Encs.



INVESTOR IN PEOPLE

Directors:
T. E. BALS; G. S. POVEY, C.Eng.;
J. S. CLAYTON; H BEDDOWS;
D. P. SPACKMAN.

Registered Office: Micron Sprayers Ltd, Bromyard
Registered in London No.529633