

Proc. 436: Safer Sheeting for Flatbed Transport and Stacks, by E G Sharp

Discussion following the presentation of the paper:

Gerald France, *Hydro Agri, UK*:

When you are pulling the sheet over the load when stacked two high, can you do that with the standard sheet that's used, the heavy one?

Ed Sharp:

Instead of the 40 kilo standard heavy canvas sheet which is generally used, we've trialled and would prefer one that is still waterproof but weighs something like 22 to 25 kilos as it's much easier.

Gerald France, *Hydro Agri, UK*:

But even with one of those light ones you can get it over the double load?

Ed Sharp:

Yes you can do it. It will be more difficult if you have to throw the heavier sheet up onto the back, that's the tricky bit. With 22 kilos it's fairly easy to throw it up. We've not tried to throw 40 or 50 kilo sheets up on top of the payload.

Don Martin, *Hydro Agri, UK*:

If you go ahead with the tables and the attachments are you going to restrict the hauliers to those who have them fitted? Are you going to expect them to fit them?

Ed Sharp:

No we propose a sort of twin track approach. We would probably take the route of trying to make sure the drivers were aware of the HSE (UK Health and Safety Executive) guidance notes, expand those guidance notes as I mention, and make sure drivers are aware of them. Similarly, we would try to make sure that they inspect ropes, etc. That's the measure we think we can implement fairly quickly and then reject drivers who don't comply because it's not unreasonable to expect them to do that. However in terms of asking them to pay for attachments of any description I think it's going to be something we simply promote. The HSE would be quite keen on us doing it. The driver would perhaps prefer it because it's easier for him to sheet and he can do it quickly. Some of the hauliers could get something out of it by way of an extra journey a day. Many of them as you know subcontract and a man may only work with us for two or three weeks a year. They are not going to invest money for that purpose, so we'll just promote the system.

David Heather, *Fertiliser Manufacturers Association, UK*:

The first thing I would say is that with all the work you've done I'm delighted you are on our working party! With all the issues associated with the safe sheeting that we've heard of within the UK about having dedicated areas, gantries and all the other options, yours would appear to be one which can be introduced anywhere on the site so it does have flexibility. But it doesn't alter

the fact that at times of peak loading you are going to have many vehicles perhaps all doing the same thing. How long will it actually take to sheet a vehicle? How quickly can you get them moving through using the method you are working on?

Ed Sharp:

You're probably talking about 10 minutes; 10 to 15 minutes to sheet and tie, against perhaps close to half an hour. It's virtually twice as fast as the present method. There are also advantages for the driver, safety ones clearly. It's easier for him to do it. Advantages for the haulier in that he can get payloads out quicker but for both these benefits we would be relying on the driver promoting it to his boss. If we consider the 600 kilo bag, for which only a simple support table on the back of the vehicle would be required which would not cost very much, I think they would probably buy it. We don't really know how much the whole series of attachments would cost because we've had to include the development costs, but probably at a few thousand for both components. It may cost less than a thousand for just a simple support table on the back, and if these were mass-produced they would even be less.

David Heather, *Fertiliser Manufacturers Association, UK*:

So then really it's two issues which need solving at the same time; the bag size and the sheeting system.

Chris Dawson, *Society Secretary*:

You mentioned 600kg bags. Is that something that's being suggested by manufacturers in order to make the stacking of wagons easier with a single layer of bags?

Ed Sharp:

Well the FMA have been looking into it, and my understanding is that the major manufacturers are interested. There are several benefits really. For instance it would be possible to store more on the site at the same stacking height. We'd be able to pack more quickly; the packages would be cheaper. Thus we'd save money on productivity - packing costs, storage costs, distribution costs, safety. There's quite a lot going for it really.

Chris Dawson, *Society Secretary*:

Do you have any information on the end-user enthusiasm? I seem to remember that three-quarter tonne bags were popular a few years ago and it was my understanding that they never really succeeded amongst our customers because they couldn't easily add multiples of three-quarters.

Ed Sharp:

We are in the process of testing the market again for that but I don't think we'll get a different answer. I think they'll say we're not really interested unless you are going to give us a 100 kilos free! So I think the only way it will work is if it's enforced, but everybody would have to do it.

Gudrun Grunenberg, *BASF, Ludwigshafen, Germany*:

How do you ensure that the product under the sheet can be identified? How do you do the labelling of the transfer of dangerous goods? There is no labelling on the sheet. In Germany we have a regulation which says that you have to be able to see from the outside what dangerous goods are being carried.

Ed Sharp:

There is no requirement for labelling on the sheet itself. Having said that, a few people have made criticism because some of our bags were loaded in such a way that the labels could not be seen. They wanted the label on every bag to show, so you've probably got a point. But typically we do sheet without anything written on the sheet and we have not had a problem with that yet.

Gudrun Grunenberg, *BASF, Ludwigshafen, Germany*:

Another question, you said in your presentation you would like to propose guidance for tautliners as well. Do you have any problems with tautliners, from the pressure?

Ed Sharp:

We have not had a problem with that, no. We have had problems with the straps on tautliners, again where they haven't been inspected. A few drivers have abseiled using the strap, it's snapped and they've ended up on the floor. That's the only kind of incident we've had with a tautliner. Just straps being in poor condition. So we've introduced that audit as well on those vehicles to make sure that the straps have been inspected.

John Hallsworth, *Kvaerner Process Technology, UK*:

Just to go back to the bag size again: why are you really promoting 600 kg as opposed to one tonne bags?

Ed Sharp:

It's a replacement for the 500 kg. Bag size depends a lot on the size of farmer's spreaders and lifting equipment. One of the things we are having to investigate now is whether farmers feel that their spreaders are big enough to handle 600 kilo discharges. There are in fact two markets. There's a half tonne type market which is the major one, something like 95% of the big bags, with some of the larger arable farms on the east of the country preferring one tonne bags, which are still available and will continue to be. However you are right in implying that in addition to being able to handle bigger bags, the simplicity of the calculation of adding up quantities of bags is important.

Steve Farnworth, *Terra Nitrogen, UK*:

I've got a lot of sympathy for your problem. I have the same problem daily at the Portrack site in the North East. I appreciate the ideas that you put forward today about sheeting both flatbeds and stacks. Do you have any ideas about climbing on top of the wagons for roping the bags securely - a question to which Gudrun alluded? Secondly, when you have a stack of product on site from which you have removed the sheet do you have any techniques for

raising the lifting loops from the top lift bag, so you can de-stack without sending somebody up to lift the loops?

Ed Sharp:

The situation is much better now we've got a raised cab in the lifting vehicle. Even with 4 metre high stacks the driver with the rising cab can see what he's doing, whereas before he just 'fished' for them and more often than not got hold of five or so, or damaged one of them, something of that sort. But now even though the loops are squashed they are not usually that squashed and now that he can generally see when he's doing, they can usually get inside the loop.

On the matter of roping the load, we don't rope the bottom layer just the top bags together which we can do from ground level. Then of course the sheet is put over and the sheet itself is roped to secure the total load by throwing ropes over the vehicle deck sides.

David Thompson, *Consultant, UK*:

Could I just expand on what Steve was saying and ask how you would lift the loops on the bags, particularly of the second high layer when you are unloading in the farm situation, because then you haven't got a rising cab on your forklift of course.

Ed Sharp:

True. I think that at that elevation they could see without a rising cab. I expect they could because our rising cab only goes up 1.2 metres. We can see a four metre high stack with a cab going up 1.2 metres so they should be able to see onto a two high stack without a rising cab.

David Thompson, *Consultant, UK*:

Further to the discussion of the top bags on road transport I did see one load, which was not from one of the major manufacturers I hasten to add, where the second high bags were not stacked vertically as yours are shown but were laid horizontally on top of the lower layer. Would you like to comment upon the safety of such a practice and how on earth you get the bag off again?

Ed Sharp:

Well I don't think that's likely to be very safe really. When loading the few extra bags on top of the bottom layer we put them vertically in the centre of the vehicle. You can walk round the outside of them so you don't have to climb an extra metre on top of those bags. So we don't see a difference from a safety point of view between loading one high and walking on the bags and going two high and still walking on the lower layer of bags. But if you lay them down my understanding is that there isn't a space round the side of those bags and drivers have to walk over the top of them so they are then at greater risk by being at a higher elevation, which I think is much less safe. As for getting them down I think farmers just pull the bags underneath, don't they, and let the lot fall? We don't see that!