Drive accuracy and CV line

It is a commonly held theory that if a CV line stays below the target CV you do not have to drive accurately. This is not correct as the following information shows. These sets of spread patterns show the effect variation in driver accuracy has on each pattern. Below is a 16 metre pattern very common on many spreaders.



To go off line by 3 metres your CV goes from 11.92 out to 50.5, even 1 metre takes it from 11.92 up to 29.56, yet this is regarded by many as a good CV line.

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It has nothing to do with the CV line but everything to do with the Pass Pattern as the sharper the centre vee and less rounded the pattern the more affected by driver inaccuracy. Below a 'straight line' CV pattern out to 20 metres and more rounded.



The figures along the bottom of the above chart are distances offset from the desired track 0 being on track. With a more rounded pattern it is greatly improved, only 15.62 at the 3 metre off track point. This shows that the shape of the spread pattern is very important, yet it does not figure at all in the 'Spreadmark' criteria.

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A more rounded or flat top the pattern is less susceptible to driver error. The more rounded or flat the pattern the more likely to have an 'S' type CV chart. This is the opposite to what is normally held to be correct. A 30 metre 'S' type below.



The 'S' type pattern also gives a far better coverage to the edge of the field, just look around silage or cornfields in your area and see the taper off in growth were this is not accomplished.

SPREADSMART

Hill Country GPS Navigation

You can see from the tracks taken from one GPS unit that it is in fact a very poor job, wandering up to 1/3 of his bout width 7 to 10 mts. if he is spreading at 30 mts, worse in some places. The operator could probably do better without the distraction of the GPS unit. While many older type GPS units relied on a light bar most of the newer ones will use a virtual road navigation indicator which is very easy to follow and more accurate. It is also important to consider if the GPS can properly control the spreader or is it just a navigation system you are



purchasing, can it give a placement audit. With new Transpread spreaders each side of the spreader can be controlled separately so that in paddocks that are tapered or for some other reason one side overlaps, is the system capable of slowing down or cutting off one side. This is where a great saving can be made for your customers, and a more ecologically friendly job done. Can you or your customers get a placement map and job details without having to pay considerable sums of money, can this be done with almost no input from you. If due consideration is not given to these things you will find a lot of expense and a lot of your time goes into the operation of the system.

The Transpread Smartguide 1020 gives all of this and a new spreader controller for very little more, or in fact less than many GPS systems. This will also shortly be fully integrated with the spreader, you go too close to a

mapped waterway and it will automatically slow down the conveyor and spinner on that side. Travel down a field that is tapered and it will automatically slow down the conveyor as it starts to overlap. Turn a corner and the inside will go slower than the outside keeping your rate even over the entire bout width. If you are spreading up and down the field after doing the headlands, put it on 'AUTO' and it will start and stop with no input from the driver. Will do this far more accurately than a driver can. No other GPS spreader system is so fully integrated and so controllable. Some of these features have been patented so are only available with Transpread.

In many countries spreading is not done on flat paddocks and in many cases the outside round has a steep face that can not be traversed yet you could spread far further down the hill if you could control the spreader on that side, now you can. Many purchasers of new spreaders are at last getting spreaders that have this capability, it is some ten years since we put these on the market.



All new spreaders will have the ability to have GPS fitted, this will be a standard upgrade on all these units as it is integrated in the 1020 controller. Audit data can be automatically uploaded to the Internet and will be accessed with just a standard browser with the necessary safeguards. A Farmer will be able to see a photo or map of his farm with the job overlaid with just a web browser. The importance of accurate spreading is seen on the pictures on these pages, you can see what a difference even 1 metre off line makes if you have a peaked pattern whereas a well rounded or flat top pattern the difference is not so great. That is why Transpread have developed vane systems to give this type pattern, it also spreads far more even up to the fence line.