

LESS - Low Emission Slurry Spreading

The two most common types of low emission slurry spreading systems which are used on Irish farms are trailing shoe and dribble bar. Both systems are approved under the LESS scheme and have been proven to reduce the loss of nitrogen gases to the atmosphere when spreading slurry. A third method which is shallow injection is also covered under the scheme however this system has not proven popular among Irish farmers or contractors.

All designs can be tanker mounted or umbilical type systems.

Dribble bar deposits slurry in rows on grass, trailing shoe parts the grass depositing slurry directly onto the soil surface, injection injects slurry into the top soil.

Splash-plate
1000 gal slurry

Spring = 6 units N
Summer = 3 units N

Dribble Bar



Pros

- Cheapest option available
- Can be retro fitted to an existing tanker
- No increase in power requirement
- Suitable for all ground conditions
- Easy to use for less skilled operator
- No ground contact
- Reduced odour
- Easy headland turns

Cons

- Will leave smearing on the grass
- Not suitable for use in heavy grass cover

Dribble Bar
1000 gal slurry

Spring = 9 units N
Summer = 6 units N

Trailing Shoe



Pros

- Larger reduction in emissions
- Suitable for use in heavy grass cover
- Very little grass smearing
- Slurry deposited at ground level
- Can be grazed sooner

Cons

- More power required
- Skilled operator required
- Less suited to hilly ground
- More complex headland turn operations
- More wearing parts
- No grant available on a retro fit system

Trailing Shoe
1000 gal slurry

Spring = 11 units N
Summer = 6 units N

The trailing shoe is the more preferred option but may not suit all farmers for the reasons above.

Additional spool valves will be required for both systems, it is important to check that the tractor will be able to operate the chosen system before purchase.

Both systems require the slurry to be chopped before being spread. This is done by passing the slurry through a macerator on the back of the tank. The macerator also distributes the slurry evenly to each outlet ensuring there is an equal amount of slurry from each outlet on the machine. Inlet macerators are also available.

The consistency of the slurry will have an effect on the performance of the macerator and the machine. Every effort should be made to minimise any debris in the slurry such as plastic or timber from pallets. The macerator should have a stone trap, and easy access to clear any blockages should they occur. Most macerators on the market can handle slurry even on farms feeding baled silage. However diagonal feed-barriers will help to reduce the amount of silage pulled into passageways by animals.

Slurry output from the machine is greater than with a standard splash plate, this can result in a requirement for a higher forward speed to maintain a similar application rate.