

# Organic Fertiliser Management

Good management when applying organic fertiliser to grassland is recommended to maximise grass growth, while at the same time minimising nutrient and gaseous losses to water and to the atmosphere. Slurry, Farmyard Manure (FYM), Spent Mushroom compost (SMC) and Poultry Litter are sources of organic nutrients that

can damage our environment if not managed correctly. They are also a valuable resource for the farmer and can help reduce the overall farm fertiliser bill. For example the guide fertiliser value of 1,000gls of cattle slurry is €28 equivalent to 1 Bag of 6.5.30 NPK. This value can be realised by carefully applying cattle slurry to grassland, (this

value is dependant on Dry Matter content of slurry and timing of application). In order to maximise the efficiency of organic fertilisers spread on your farm, it is recommended to apply them in accordance with a Nutrient Management Plan. This will ensure that organic manures are targeted to correct fields that have sub-optimal fertility. Improved utilisation of organic manures can also help reduce chemical fertiliser requirements.



## Benefits of Optimising Organic Fertiliser Usage

- Reduces the risk of diffuse loss of nutrients to water
- Help address soil fertility deficits on the farm
- Help reduce overall chemical fertiliser bill
- Matches nutrient applications to grass growth rates
- Help maximise grass production on the farm



# Risk Areas

1. In slatted sheds ensure all water troughs are working properly and prevent water entering tanks from roofs or yards.
2. Heavy rainfall when organic fertiliser is applied increases the risk of surface runoff and leaching of nutrients.
3. This risk increases where organic fertilisers are applied on critical source areas (CSA) for example land sloping towards drains or watercourses.
4. Do not apply to saturated soils as this will increase the risk of soil compaction and surface runoff of nutrients
5. Ensure the tractor driver is aware of the location of waterbodies when spreading organic fertilisers and observes the relevant buffer zones.

# 5 Tips to improve FYM and slurry management

1. Ensure the capacity of organic manure stores, at a minimum, is sufficient to meet the storage requirements for your county.
2. Ideally there should be a buffer of 2 to 4 weeks additional storage. This will help to reduce the need to empty tanks in poor weather and ground conditions.
3. Prepare and implement a nutrient management plan to ensure the nutrients in slurry are targeted to where they are most needed, (consult your advisor).
4. Apply slurry in spring where ground conditions are suitable and soil temperature is consistently greater than 6 degrees. Organic manure application rates must match grass growth rates to maximise nutrient uptake.
5. Apply a 5m buffer zone from drains and watercourses when spreading organic fertilisers, increase this to 10m if spreading in January or October.

# LESS Technology

1. New technologies for the application of slurries have become more common in recent years that have benefits for water quality, GHG and ammonia emissions.
2. Low Emission Slurry Spreading (LESS) equipment allows slurry to be spread on heavier grass covers which improves nutrient uptake and helps reduce the risk of diffuse nutrient and ammonia losses.
3. Umbilical slurry spreading systems should only be used where ground conditions are suitable. Using this system where soils are saturated to avoid soil damage from tankers poses a risk to water quality. When using umbilical spreading systems ensure slurry is not over applied.



# Summary

Organic fertilisers can be a valuable asset on a farm, but only if managed correctly. When spread, organic fertiliser is either absorbed by soil and plants or lost to air and water. By minimising losses through careful application, farmers can retain more nutrients, reduce sward contamination and reduce the fertiliser bill on the farm. This will increase farm profit while helping to protect our air, atmosphere and water quality.

For more information please visit [www.teagasc.ie/water-quality](http://www.teagasc.ie/water-quality)



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