

slurry storage

# Slurry storage – have you enough?

The impact of dairy farming systems on the environment is of critical importance in gaining access to new markets, increasing market share in existing markets, while also maintaining access to premium dairy markets that will return a good milk price to the farmer.

**Tom Curran**  
Teagasc  
Regional Manager,  
Cork West



**Tim Hyde**  
Teagasc  
Environment Specialist



**T**o be sustainable, our dairy farming systems must operate in harmony with the surrounding environment and we are obligated to contribute to reducing our carbon footprint. At the same time, we must improve water quality and biodiversity on our farms.

The storage and use of slurry is a key factor in this sustainability. We have to change our view on what slurry is. Slurry is a valuable resource rather than a waste product. Put simply, just as grass is the cheapest feed for cows, slurry is the cheapest source of nutrients available to farmers to grow grass.

Every kilogramme of grass you can produce from slurry reduces the chemical fertiliser that you have to buy to grow the grass. For example, 3,000gals/ac of good-quality slurry (6% DM) applied to first-cut silage fields will supply approximately 30% of the crops N requirements and all P and K requirements.

The Ag Climatise roadmap mentions that chemical fertiliser usage needs to drop by 20% over the coming years. It also sets a target to have 75% of slurry spread by Low Emissions Slurry Spreading (LESS) equipment

by 2025. The efficient use of slurry will increase your profit margin on every litre of milk.

In an environment where chemical fertilisers are expensive and where their use is going to be subject to increased regulation, farmers must use slurry as the number one source of nutrients on the farm. Only then should you top up with chemical fertiliser to meet your crop requirements.

This article will focus on the first part of the equation – do you have enough storage to allow you to use this slurry at the correct times of the year? The correct time of the year is when grass is actually growing. For most soils, this is when soil temperature is greater than 5-6°C. So for dry soils, this could be late January in a warm dry spring. But for heavy or peat soils, this could be the early to

mid-March.

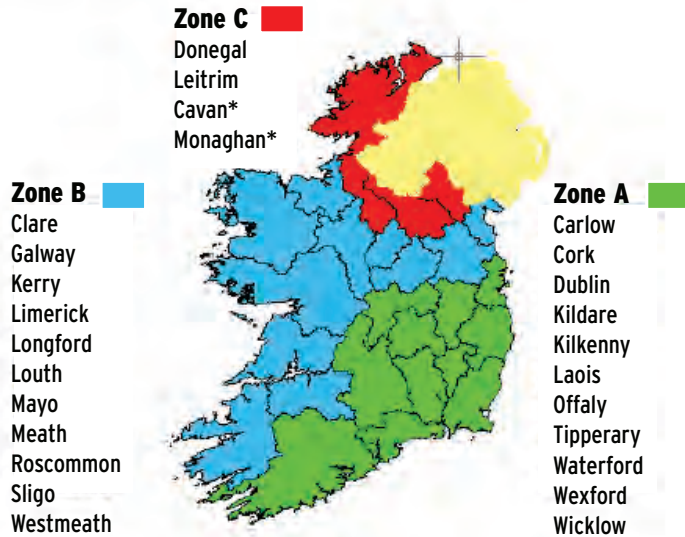
Over the winter period, when grass growth is low, at up to 5kg DM/ha/day, the uptake of nutrients is also very low. Surplus nutrients are easily lost by runoff (P) or through leaching (N). This is confirmed by research, which shows that the biggest loss of nutrients from farmland to watercourses occurs in late autumn, through the winter and early spring.

There has been, and continues to be, a lot of criticism of ‘farming by the calendar’ but this misses the point in relation to the impact of out of season spreading on the quality of water in our nearby streams and lakes and estuaries.

Out of season spreading brings the amount of slurry storage available on the farm and the management of that storage very much into the limelight.

Zone	Minimum slurry storage capacity	Winter housing start date	End of minimum storage requirement	These are example dates. Use your own farm as an example and work out when you normally house and when you have to spread slurry. Use the last winter as an example.
A	16	1 November	21 February	
B	18	18 October	21 February	
C	20	15 October	4 March	
C*	22	1 October	4 March	

## Zone designation

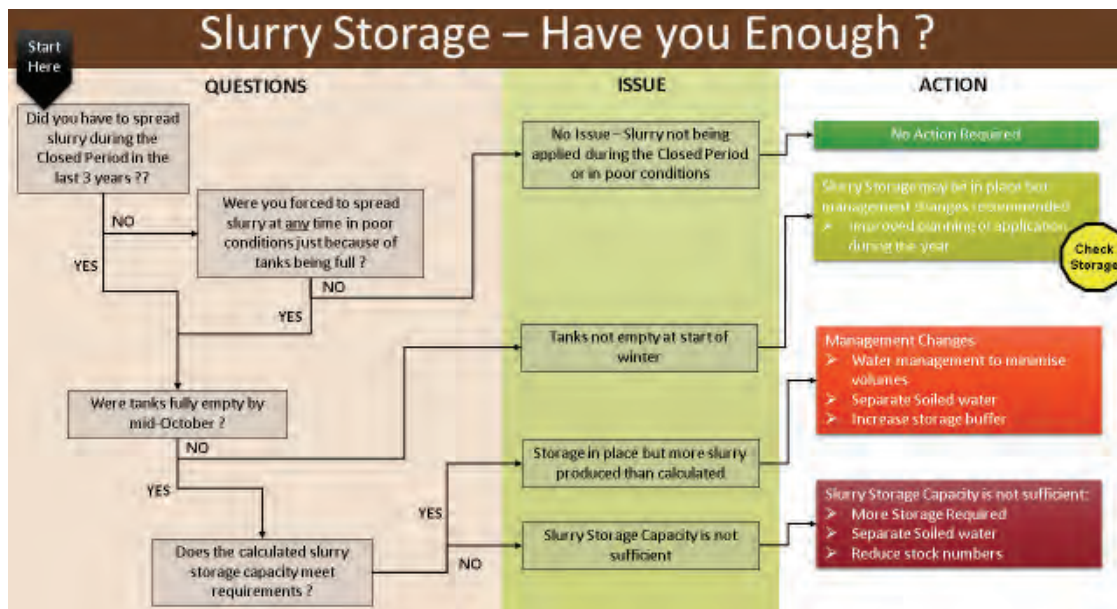


## Why have extra storage?

- More flexibility to match slurry application timings with grass growth.
- Better use of nutrients when grass is growing.
- To better manage increased rainfall events at the shoulders of the year.
- Provide cover for miscellaneous issues where water enters tanks and reduces capacity.
- Enough storage to meet the regulations and a buffer of 20% to cover miscellaneous occurrences.
- Use slurry to replace one round of chemical fertiliser/year.
- Apply slurry at the correct time to maximise the fertiliser replacement value (N, P and K) of slurry.
- TAMS grants are available to farmers for additional slurry storage of 40-60%. The cost can also be written off against tax and the VAT is reclaimable.

**Table 1:** Storage periods for cattle manure and the prohibited periods for spreading fertilisers to land.

Zones	Storage period for cattle manure	Prohibited application periods		
		Chemical fertilisers	Organic fertilisers	Farmyard manure
A	16 weeks	15 Sept – 12 Jan	15 Oct – 12 Jan	1 Nov – 12 Jan
B	18 weeks	15 Sept – 15 Jan	15 Oct – 15 Jan	1 Nov – 15 Jan
C (Donegal and Leitrim)	20 weeks	15 Sept – 31 Jan	15 Oct – 31 Jan	1 Nov – 31 Jan
C* (Cavan and Monaghan)	22 weeks	15 Sept – 31 Jan	15 Oct – 31 Jan	1 Nov – 31 Jan



### Some key questions to ask yourself:

- Were all slurry stores empty at the beginning of the last winter?
- Have you had to go out to spread slurry during the closed period?
- Depending on the zone you are in, had you enough storage from the start of the winter housing period?
- Are you concerned that this is an issue on your farm?
- When did you first spread slurry this winter?

- If you spread slurry between the end of the closed period and the 15 February, it is an indicator of storage shortage or issues within the farmyard?
- Where are your dairy/parlour/collecting yard/pit washings stored on the farm?
- Have you excessive straw bedding in your storage calculations that is not actually used in practice?
- Have you considered or planned any

solutions to rectify any storage shortage?

Farmers who have insufficient slurry storage to meet the requirements of 16, 18, 20 or 22 weeks may be in breach of the nitrates regulations.

It is strongly recommended that all farmers plan for a minimum buffer of 20% or an additional two to four weeks storage over and above the minimum nitrates regulation requirements.