

## How much Chicken muck should I put on?

Use the results from your soil test and if possible have the muck analysed as the nutrient content of the muck will vary. Use standard book figures if analysis is unavailable- the table below shows just how different cattle and chicken muck are in terms of nutrient content. Match with crop need (talk to a FACTS qualified advisor) and ensure application complies with NVZ regulations if you're in an NVZ area, also making sure you don't oversupply P & K.

Type	Dry matter%	N (kg/t)	P (kg/t)	K (kg/t)	Mag (kg/t)	Calcium (kg/t)	Sulphur (kg/t)
Chicken std book fig	60	30	25	18	4.2		8.3
<b>CHICKEN MANURE Typical farm</b>	<b>75</b>	<b>39</b>	<b>17</b>	<b>26</b>	<b>6</b>	<b>18</b>	<b>9</b>
Cattle std book fig	25	6	3.5	8	0.7		1.8

Based on the analysis above, 3.5tonnes /hectare (note: this is equivalent to just 1.4t/ac) of chicken manure surface spread in March/April would supply 27kg N/ha, 36kg P/ha and 83kg K/ha- enough P and K for a 1<sup>st</sup> cut of silage at soil indexes of 2 for P and K. The shortfall in N (around 90-100 kg N/ha) could be supplied from Clover nitrogen or bagged N.

## How do I make sure I don't lose so much nitrogen ?

Not all the nutrients in slurry/manure are available to the plant due to losses from leaching, run off or to the atmosphere. These losses depend on manure type, dry matter, application time and soil type. Availability of P and K varies little – but nitrogen availability changes greatly.

### Percentage of total nitrogen available to the next crop following surface application

Timing		Autumn		Winter		Spring	Summer
Soil Type		Sandy/ shallow	Medium/ heavy	Sandy/ shallow	Medium/ heavy	All soils	All soils
Fresh FYM	25% DM	5	10	10	15	20	No data
Old FYM	25% DM	5	10	10	10	15	No data
Cattle slurry	2% DM	5	20	25	40	50	35
	6% DM	5	15	20	30	35	20
	10% DM	5	10	10	15	20	10
Dirty Water	<1% DM	0	40	10	60	80	50

### To maximise nutrient uptake and cut losses:

1) Avoid high risk times. Applying in late autumn and early winter often means high rainfall – resulting in nutrient leaching and runoff and soil temperatures are lower, reducing plant uptake.

Surface applications in summer are prone to high losses as ammonia gas – especially from high dry matter material - consider using an injector or trailing shoe for applying slurry.

2) Avoid high risk areas (especially during high risk times!). Applications on steep slopes, waterlogged ground and frozen ground should be avoided.

3) Avoid heavy applications. Applying more than 35m<sup>3</sup>/ha (3150 gallons/acre) in one application is likely to 'overload' the system, increasing the chances of losses – as well as damaging the sward and killing worms.

- 4) Apply only what the crop needs, check soil indexes and account for nutrients in slurry.
- 5) Check that spreaders (including the contractor's) are calibrated correctly and spread accurately.
- 6) Produce a clear manure management plan – and discuss it with your contractor.

Sefydliad y Gwyddorau Biolegol, Amgylcheddol a Gwledig

**IBERS ABERYSTWYTH**

Institute of Biological, Environmental and Rural Sciences

Canolfan Datblygu Tir Glas, Prifysgol Aberystwyth  
Grassland Development Centre, Aberystwyth  
University,  
Gogerddan, Ceredigion SY23 3EB Gogerddan,  
Ceredigion, SY23 3EB  
Ffôn: (01970) 823000/Ffacs: (01970) 828357  
Tel: (01970) 823000/Fax: (01970) 828357