

FAQ'S 2nd QUARTER 2009

September to November 2009

23 September: Nant yr Efail Open Day

What type of seed mixture should I use for oversowing or slot seeding?

Hybrid ryegrasses and tetraploid perennial ryegrasses have bigger seeds and will tend to germinate faster and be more aggressive than diploid varieties. However the seed mixture appropriate to the type of livestock grazing or silage ley should also be considered particularly if looking at a long term ley.

When is the best time to oversow?

Spring – there is plenty of moisture in the soil and a long growing season ahead. This will not be an ideal time if there is high pressure on early season grazing. Low soil temperatures can mean slow establishment and it then can be difficult to keep on top of competing grass during peak growing times. There increased competition from the existing sward at this time of year means that managing this, is key to successful establishment of the emerging seedlings

After silage – swards are open and require less harrowing to create the right conditions. The risk of prolonged dry conditions is lower after later cuts (July/August). This is often the best time but remember clover seed needs to be sown by early August to ensure adequate plant development before the winter.

Use renovation techniques strategically to correct swards before you lose production:

If weather conditions force a long, late silage cut – introduce some seed as tiller densities will be low and aftermath recovery will be slow.

If a wet spring has meant stock damaging ground – renovate as soon as possible, rather than allowing weeds and weed grasses to move in and fill the gaps

15th October: Nant y Deri discussion group meeting

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
CHICKEN MANURE Typical farm	75	39	17	26	6	18	9
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 1st 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 35m³/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.

27/10/09 – Hendy Open Day

How much is soil compaction costing per acre?

Mild compaction can easily result in a reduction in yield of 10-20% through a range of mechanisms – (poor root growth, reduced fertiliser recovery, increase denitrification). If we assume a productive ryegrass ley can produce 10t Dry Matter (DM/ha/yr) – and a moderately compacted ley only 8t DM/ha/yr (with the same input costs). With current input costs, 1t DM is currently “worth” around £100 as ensiled grass (10p/kgDM) - or around £55 (5.5p/kgDM) as grazed grass. So soil compaction can cost of between £100 and £200 per hectare/yr in terms of reduced yields

Why are there no worms in my soil? –

Areas on farms with low soil pH and temporary waterlogging create anaerobic conditions that worms are not able to live and grow and multiply in. They will move from these areas where possible to soils with free flowing air and water and where soil is more alkaline.

When is the best time to use slitters/lifters to correct compaction?

While soil management techniques like slitters and lifters can be valuable tools it is vital that soil conditions are right. Soils need to be dry to prevent smearing and promote cracking and also operations should be carried out ideally after peak grass growth to limit damage to the growing grass sward. For this reason if the weather is dry, September or October are ideal months for this activity. If conditions allow March can be an option provided clover is well established and has overwintered well.

5th November- Nant y Deri Open Day

Does forage rape need much fertiliser?

When grown as a catch crop after cereals lower nitrogen rates than recommended (RB209) can be used where soil indexes are at 0 and 1 with further reductions at index 2 and 3. If soil is moist and has been cultivated additional reductions may be made. At index 3 in these conditions 1cwt/ac of Nitram would be sufficient with no P and K. Under these conditions at index 2, 2cwt of 20-10-10 an acre would be sufficient. Forage rape has a lower requirement for fertiliser in general than turnips, kale or Swedes.

How much rape should I feed every day?

It all depends on the liveweight of the cattle/ sheep, the yield of the crop and the percentage of rape in the diet.

Make an assessment of how much dry matter / m² the crop is yielding by weighing the rape from a metre square of the crop e.g 6kgs, and multiplying by 12% (crop dry matter) to give you kgDM/m². Starting with a total intake requirement (kgDM/day) based on being 3% of the liveweight, rape would be about 70% of this- say 10kgDM/d for a store weighing 480kg. Hence, if DM yield was 0.7 kg/m², each animal would need 14m² a day. If the fence line is 100 metres each animal needs 0.14m a day. 50 animals would need 7metres/day.

16th November 09; Pumsaint DG

See 23 September: Nant yr Efail Open Day on pasture rejuvenation, also:

When should I oversow and when should I do a complete re-seed?

A large percentage of Beef and Sheep farmers will put in a long term permanent pasture ley when re-seeding and be looking for upwards of 10 years of production from it. The ley, well managed will remain productive for 10 years but during that time will gradually suffer the ingress of weeds and weed grasses with much lower digestibility, feed value and response to nitrogen. So when do I plough it up? Generally speaking, a complete re-seed would be advisable once the percentage of sown species originally sown drops below 25%- this means that you walk the ley and evaluate how much ryegrass is still present- know your grasses and more importantly; be able to identify ryegrass amongst other grasses like the fescues, meadow grasses, Yorkshire fogs, cocksfoots etc! Oversowing on the other hand, would be advisable in order to boost production once the percentage of ryegrass drops much below 70%. White or Red clover can be oversown at any time when a need for improved quality forage (increased crude protein) and the ability to fix nitrogen and supply it to the sward is identified.

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17th November, Nant yr Efail discussion group

Should I use an inoculant on my wholecrop cereal?

If the crop is only cereal, the crop should ferment well without an inoculant additive. However where there is a legume like clover, peas or vetches included in the mix, use of an inoculant will improve fermentation and the feed value to the rumen. Rapid fermentation reduces losses from the crop and drops the pH more quickly to preserve the crop; the legume has a higher buffering capacity which is why use of an inoculant is recommended.

Will my stubble turnip bulb grow bigger if I leave it to grow for three months?

Stubble turnips are rapid growing brassicas and after around 8-12 weeks the bulb will not increase in size, but the plant may 'bolt' if not grazed. To increase the size of the bulb (the main energy source) decrease the seed rate slightly so the plants are less dense. The leaf however is high in protein and together with the bulb gives a good energy and protein crop. Swedes will give a higher energy crop than stubble turnips but are a main crop and would need to be in the ground for most of the season.

Do red and white clover suffer from the same diseases?

Although they do both suffer from some of the same diseases, there is greater resistance in white clover than in red clover due to many years of plant breeding and selection. White clover is also able to "grow away" from disease as it's stoloniferous and creeps along the ground. Red Clover is an upright plant that depends on keeping the integrity of the crown to stay healthy and strong under disease pressure and is therefore more susceptible. However the good news is that the pests and diseases are generally specific to red clover and to white clover which means that white clover can be a break from red clover in a rotation. It is important to leave at least 5 years between subsequent red clover crops.