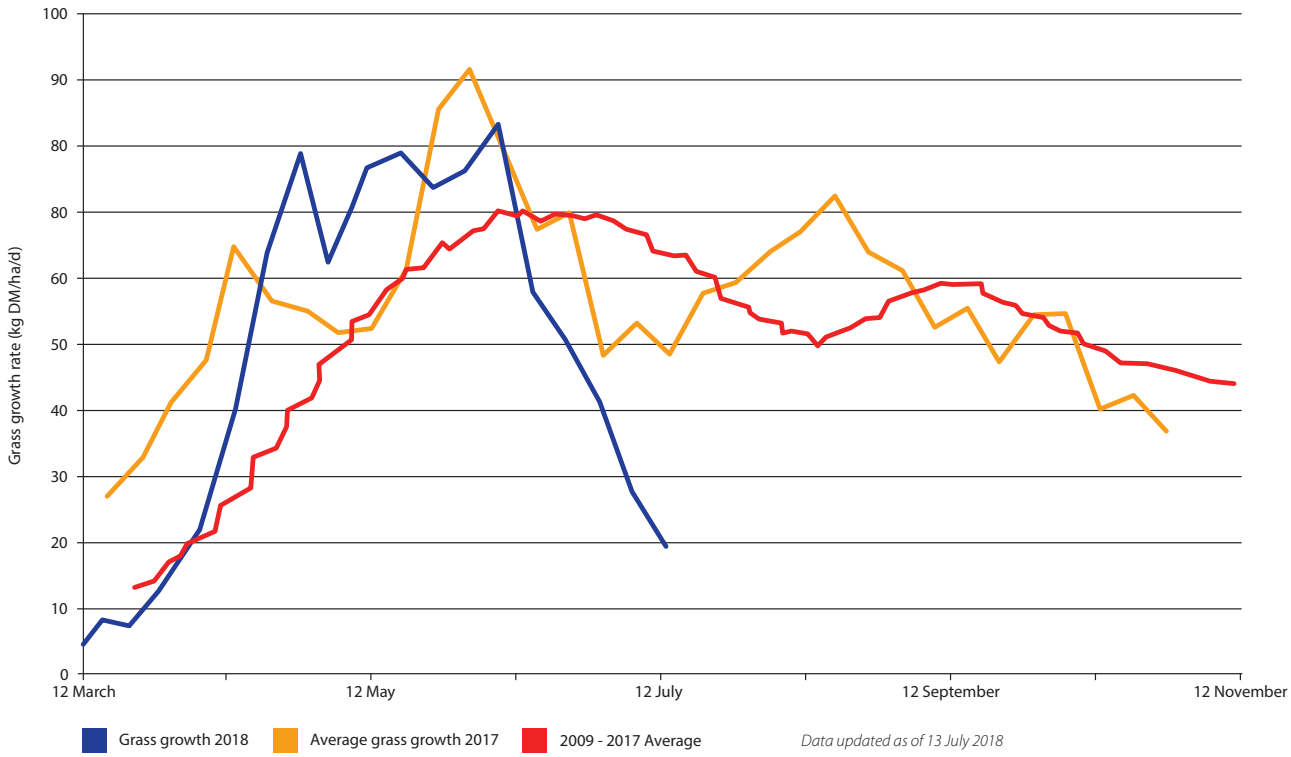
The drought and possible implications on milk supply

Technical Update

The 2018 drought is turning out to be one of the most serious long-term weather effects for more than 25 years and many are already comparing it with 1976. The dry weather is compounding the poor conditions experienced in the second half of the 2017 growing season, and the wet, cold spring, which affected early season growth this year.

The figure below shows weekly grass growth rates compared to last year and the eight-year average, and clearly illustrates how difficult the growing season has been. Very little grass growth in the spring, a glut through May and now unprecedented shortfalls.

Forage for Knowlege - Seasonal Grass Growth Rate



To date milk supply is holding up reasonably well, and is only falling marginally quicker than normal as we head towards the annual trough in production. However, as you can only feed forage once, there could be potential issues in the pipeline later in the year.

Already producers have introduced contingency plans, but these are adding cost into systems. Anecdotally we hear that feed mills are running much closer to winter capacity than would normally be seen at this time of year. Many farmers have also taken cereals as wholecrop instead of combining them to put some bulk into the clamps. Again, this has implications on costs as the grain and straw will now have to be purchased.

November LIFFE wheat futures are currently over £165/tonne (up £20/tonne on the same week last year) and standing straw auctions have reached over £200/acre and on average are £40/acre up (Source Farmers Weekly).

We have looked at various scenarios based on when the drought breaks, what that means at farm level and how it will affect the cost of production going through the winter. The assumptions are shown along with a percentage probability. The weightings given to the various scenarios are based on precipitation models which indicate lower than average rainfall throughout Q3 of 2018.

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Scenarios:

1) Weather breaks significantly in second half of July – 5%

2) Weather breaks and goes back to "normal" in August – 55%

3) Weather doesn't break until late August/September – 40%

Scenario 1:

- Difficult conditions for the next few weeks until grass gets back on track.
- One cut of silage lost and some stocks eaten.
- Grazing recovers from mid-August.
- Maize will recover and yield well.
- Possibility of late cuts of silage to replenish stocks.
- Wholecrop silages have helped stocks.
- Higher concentrate feeding rates to date.
- Minimal impact on milk production.
- Impact on cost of production 1ppl.

Scenario 2:

- Silages already made will be fed early.
- Maize drought stressed and will only partially recover reducing yields.
- Loss of one to two cuts of silage.
- May get one cut late to replenish some stocks.
- Straw/bulk feeds will continue to increase in price.
- More concentrates fed to counter reduced forage supply.
- Milk flows affected from the autumn as spring calvers dry off early and more traditional units struggle to maintain output.
- Impact on cost of production 2ppl +.

Scenario 3:

- Minimal forage going into winter.
- Grass silages fed through summer and no later cuts to replenish stocks.
- Maize crops struggle and yields reduced by 25% or more.
- Significant forage dry matter replaced by concentrates/ straights/bulk feeds.
- Issue with bulk feed supplies due to demand from AD plants.
- Bedding costs increase dramatically (straw).
- Unless milk prices continue to increase milk flow will be affected – passengers culled/early drying off.
- Autumn block calvers potentially less affected as long as forage is in place - these cows will now be drying off and therefore having little impact on milk flow.
- Impact on cost of production 3ppl +

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We would normally look at a milk price to feed price ratio of 1.2:1 as being the point at which producers feel more confident to increase feed rates to produce marginal litres. With concentrate prices likely to be in the £240-£250/tonne range this winter, that will require a milk price of at least 28.8 to 30 ppl. However, we are in the unusual position where concentrate will be required to make up the forage shortfall and therefore the normal rules will not apply.

A concentrate price of £240/tonne as delivered to the farm equates to £280/t of dry matter. Conserved forage would normally be valued at £120-£130/tonne of dry matter. Therefore, every kg of substitution adds 15-16p to the daily cost of keeping the cow. A fairly typical winter diet may consist of 12kg of forage DM and 6.9kg of concentrate DM (8kg fresh). Substituting 2kg of forage DM with concentrate would add at least 30p/cow/day or 1.2 ppl for an average yield of 25 litres.

The shortage of forage has ramped up forage costs on the open market. Standing wheat has been changing hands at £800/acre for wholecrop. Add £60/acre for harvesting and we are looking at £180/t DM for extra forage that has to be purchased to make up the shortfall.

A case study with a client has forecast a 2.6ppl increase in costs. This is based on a shift in forage: concentrate ratio from 55:45 to 45:55. Extra wholecrop costs to make up for the lack of third and fourth cut silages and a 20% reduction in maize yields.

Historically cows have milked well after dry summers as they are fed more concentrate to compensate for the lack of forage. So if the milk price is high enough then farmers will find ways to keep the milk flowing.

Any faltering in the upward trend in milk price will see a potential worst-case scenario where producers will be forced to cull harder to avoid having to feed extra cows, to dry cows off early as their requirements are lower under these circumstances and not push for the marginal litres. This could lead to milk production falling below last year's levels by up to 5%.

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