

Get with the program

PastureBase Ireland analyses grassland data gathered from Irish farms. Those who make use of the internet tool achieve better grass management and increased profit



Micheal O'Leary
Teagasc Animal and Grassland
Research and Innovation Programme



PastureBase Ireland (PBI) is an internet-based grassland management tool. In operation since 2013, it offers farmers grassland decision support and stores a vast quantity of grassland data from dairy, beef and sheep farmers in a central national database. At the moment, the vast majority of farms recording grass measurements on PBI are dairy farms. Drystock farms account for just 10% to 15% and our aim is to greatly increase participation by cattle, dairy and sheep farms.

What PBI is telling us is that farmers must have a good handle on current grass supply in order to manage grass well. If you don't know your farm covers, grass demand and grass growth, it is virtually impossible to operate a high-output grass-based system. A key factor in the profitability of any farm is to make use of the feed resource produced inside the farm gate. Relying on imported feed leaves you very exposed in the current volatile environment.

Grass Dry Matter (DM) production on all PastureBase Ireland farms

There is huge variation in grass DM production and utilisation on Irish farms. High grass DM production can be achieved on all farms with good grazing and soil fertility management, regardless of where they are in the country. This is one of the key findings from PastureBase Ireland.

Differences in stocking rate, soil fertility and grazing management practices all contribute to this variation. Most farms have the potential to increase their DM production substantially. Data from 2014 showed that increasing grass utilised by 1t DM/ha increased net profit by up to €181/ha on dairy farms, while 1t DM/ha extra

Breaking new ground – PastureBase Ireland & AgriNet Grass

At the National Ploughing Championships, the formal merger of these two grassland software packages was launched. There is now one grassland package for 2017: PastureBase Ireland.

The merger offers Irish farmers world-leading grassland software to aid decision-making on their farm. It will also mean that Irish grassland data will be stored in a national database for the benefit of Irish farmers.

The merger brings together all commercial farm grassland data in one system and will leverage the knowledge base of both organisations to develop and improve the system. Ireland as a nation is well ahead of our international competitors in this area and this merger will allow us to build on this advantage.

utilised on a drystock farm is worth €105/ha.

Dairy farms in PastureBase Ireland have grown between 12t and 14t DM/ha/year over the past three years (2013-15); drystock farms using the system have grown between 10.5t and 12.3t DM/ha/year for the same period. An important aspect of the grass production data is that the highest-producing farms have little variation between paddocks. Less-productive farms tend to have much greater variation between individual paddocks.

The number of grazings from each paddock is key driver of success. PastureBase Ireland has highlighted that every extra grazing achieved per paddock is worth 1,385kg DM/ha. A high proportion of drystock farms have too few paddocks and too many large paddocks.

As a result, livestock are grazing these paddocks for too long (up to two weeks). The productivity of these paddocks is then significantly reduced. Where regrowths are not protected, they are being continually regrazed, nitrogen application is not up to date and rotation length is non-existent.

PastureBase Ireland has identified that one new paddock on a farm will give five extra grazings on the farm for the year. Sub-dividing a farm into paddocks of appropriate area means the number of grazings and DM production will increase.

Key components in producing high quantities of grass:

- Rotational grazing system – paddock system.
- Good farm infrastructure, i.e. appropriately sized paddocks and roadways.
- Maximising spring grazing – early turnout and finishing the first rotation on time.
- Addressing any soil fertility deficits annually.
- Recording farm covers regularly (totalling more than 25 farm walks/year).
- Making decisions weekly based on the information generated after each cover measurement.
- Achieving a high number of grazings per paddock per year – top farms are achieving more than 10 grazings per paddock per year.

CASE STUDIES James Barber, Co Laois, & Peadar Kearney, Ardee, Co Louth

James Barber has been exploiting the advantages of PastureBase Ireland. The Laois dairy farmer won a Stephen Cullinane scholarship with Macra which took him to New Zealand and he was first introduced to grass measuring and budgeting when working on a dairy farm there:

“Spring and autumn planners, budgets and grass wedges were the norm in New Zealand at that time. Farmers who were measuring and managing grass were always profitable, even in a low milk price year. From there, I have a clear focus on growing and utilising as much grass as I can on my own farm.”

James walks his farm every Monday, which typically takes one and a half to two hours. He then enters the covers on to PastureBase Ireland. “Managing grass isn’t simple, there can be too much or too little. PastureBase helps me manage what I have today and what I need to do over the next five or six days. After entering the figures, only about 10 minutes are required to plan for the week ahead.”

This year, James has recorded 37 farm covers on PastureBase Ireland. “The length of the grazing season is a big key performance indicator for me,” says James. “The more days that cows are out grazing, the lower my costs of production are going to be.”

Last year, cows were grazing for an impressive 287 days on James’ farm. This includes both on/off grazing at the shoulders and out-grazing day and night. It is no surprise that James grew over 14t of grass DM per hectare in 2015 and is on target to exceed 14t this year.

“PastureBase is a great way of creating discussion, especially when our group meets up once a month,” says James. “We can see all the figures, it’s great for benchmarking where my farm is compared with other members in the group.”



County Louth sheep BETTER farmer Peadar Kearney is also seeing the benefits of measuring and recording farm covers on PastureBase Ireland. “After walking the farm and entering the covers on PastureBase, I see a snapshot of current grass supply,” says Peadar. “The three figures

I always keep an eye on are growth, demand and number of days ahead. The system calculates these for you in seconds!”

The Ardee man joined the BETTER farm programme in 2014. “The first thing I needed to implement was a rotational grazing system which you cannot do until you have paddocks and more importantly, the correct size of paddock for your group of stock.”

Peadar now has his home farm divided into 14 permanent divisions. During the summer, temporary fencing is used to divide paddocks further to manage grass when growth rates are high. “PastureBase has helped me identify paddocks that were not performing on the home block. After looking at the paddock summary report, it was clear that two paddocks needed investigation. Both paddocks were soil tested and subsequently reseeded earlier this year.”

As farmers enter weekly grass covers, this information is saved in the national database. This is a huge asset for the whole grassland industry to have and is the first of its kind in the world.

CONCLUSION

It is clear that Ireland has incredible potential to increase annual DM production with a better focus on grazing management. The Food Wise 2025 target is for grass utilisation to increase by 2t DM/ha on all Irish farms.

More importantly, individual farmers can potentially increase their incomes by managing grass and using PastureBase Ireland.

PastureBase Ireland is a free online grassland management decision tool available to all farmers in Ireland. To get more information or to sign up, email pasturebaseadmin@teagasc.ie.

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