Pasturebase Ireland – Grass Cultivar Evaluation results 2013/14

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Talk Outline

- Pasture base - Usage and Farm performance to date
- On farm cultivar evaluation study
  - Set up
  - Results to date
- New insights and measurements
- Discussion
PastureBase Ireland – System Usage

- Currently 925 farms on system (July 2015)
- 688 dairy farms
- 203 beef farms
- 34 sheep farms
- All research farms
- >90 Individual farmer groups (farms linked)
- 1200 Users
- Twitter – feed out information daily from system – weekly growth rates, DM%, quality and post grazing residuals
Pasture Base Ireland Farms DM Production

Top 20 Farms 2014
- Grazing DM: 13396
- Silage DM: 3122

Top 20 Farms 2013
- Grazing DM: 11523
- Silage DM: 2397

Year 2014
- Grazing DM: 11350
- Silage DM: 2522

Year 2013
- Grazing DM: 10185
- Silage DM: 2083

Grazing DM
Silage DM

The Irish Agriculture and Food Development Authority
Association between grass utilised and net profit in 2014 (Hanrahan et al, 2015)

\[
y = 0.2673x - 1255.5 \\
R^2 = 0.5556
\]
Summary

• High grass production at farm level – little location effects
• Higher performers can grow >15t grass DM/ha
• Grass utilisation/ha has a major economic impact
• Seasonality needs to improve
• Growing levels of participation – but different usage levels
Grass Cultivar Performance on farms 2013 & 2014
Objective

- To establish the phenotypic performance (Seasonal DM production, quality and ground score) of recommended listed cultivars on commercial farms
- To establish baseline farm production data and eventually use within the Pasture Profit index
Criteria for Selecting Farms

- Measuring grass weekly
- >35 Measurements annually
- Measurement history – Measuring Pre PBI
- Interest in Varieties
- Reseeding regularly
- Expect Feedback – negative feedback as good as positive
Grass Cultivar Criteria on Farms

- Varieties need to be Recommended Listed/or near listing close to be recommended
- The most recent recommended are established on farm
- Begun in 2011 and accelerated since
- No differentiation between tetraploid and diploid
Data Capture

• Pasture base for;
• Seasonality & total dry matter Production
• Ground Score – Nov/Dec – farm visit
• Grass Quality – Late May (2015) - Farm visits (40% of farms)
• Mineral analysis - mid June
• All data stored and cleaned in PBI
Where are the Farms

Cork -27  
Limerick 9  
Tipperary- 8  
Galway 6  
Kerry 5  
Westmeath 4, Kilkenny 3  
Kildare, Waterford, Wexford, Donegal 2  
Laois, Longford, Cavan 1
Cultivars on Farms

Older Varieties

Tyrella - all farms (69)
Twymax (36)
Kintyre (29)
Abergain (24)
Drumbo (22)
Aberchoice (22)
Majestic (20)
Astonenergy (17)
Dunluce (13)
Glenveagh (16)

New Varieties 2015

AstonLord (1)
Aberwolf (5)
Clanrye (3)
Total DM Cultivar Production on Farms
(2013 & 14 – Tyrella 12.6 t DM/ha Control)
Number of Grazings achieved per cultivar (Control – Tyrella 7.1 per year)
Mean Cultivar ground score – (2013 & 2014 – Tyrella - 4.1)
Mean Grass DMD (June 84.6) of 33 Farms of Cultivar group
Significant effect of cultivar on DM yield, range in DM Production between Varieties (13.4 – 11.4t DM/ha)

Require more data, large variation across data set

Relationship between on farm data and plot data was every additional DMY (t DM/ha) in plot evaluations represented 0.64 DM/ha on farm (one years data)

Ground score is less on farms – higher pressure (Grazing, traffic, machinery, poaching)

Grass digestibility data set emerging – large farm to farm variation
Establish a new control cultivar on farms – linked to previous
Recruit more farms across the country and enterprises

Requirements
More new varieties coming through
Seed of new varieties earlier – 1 ton minimum
Research Focus – 2 – In House

- Develop relationship between Simulated grazing and Grazing of cultivars – in relation to all parameters
- Develop - ‘grazing utilisation difference’ – between’ cultivars
- Establish parameters differentiating varieties
- Establish new Predictor grazing traits
- Plans
  - Sown down RL to Simulated grazing and Grazing in Spring 2016
  - Repeat every second year for a three year period
Questions
Variation in Spring growth is 0.18% to 0.04% - 2.4t DM/ha to 0.6t DM/ha