Pasturebase Ireland – Grass Cultivar Evaluation results 2013/14

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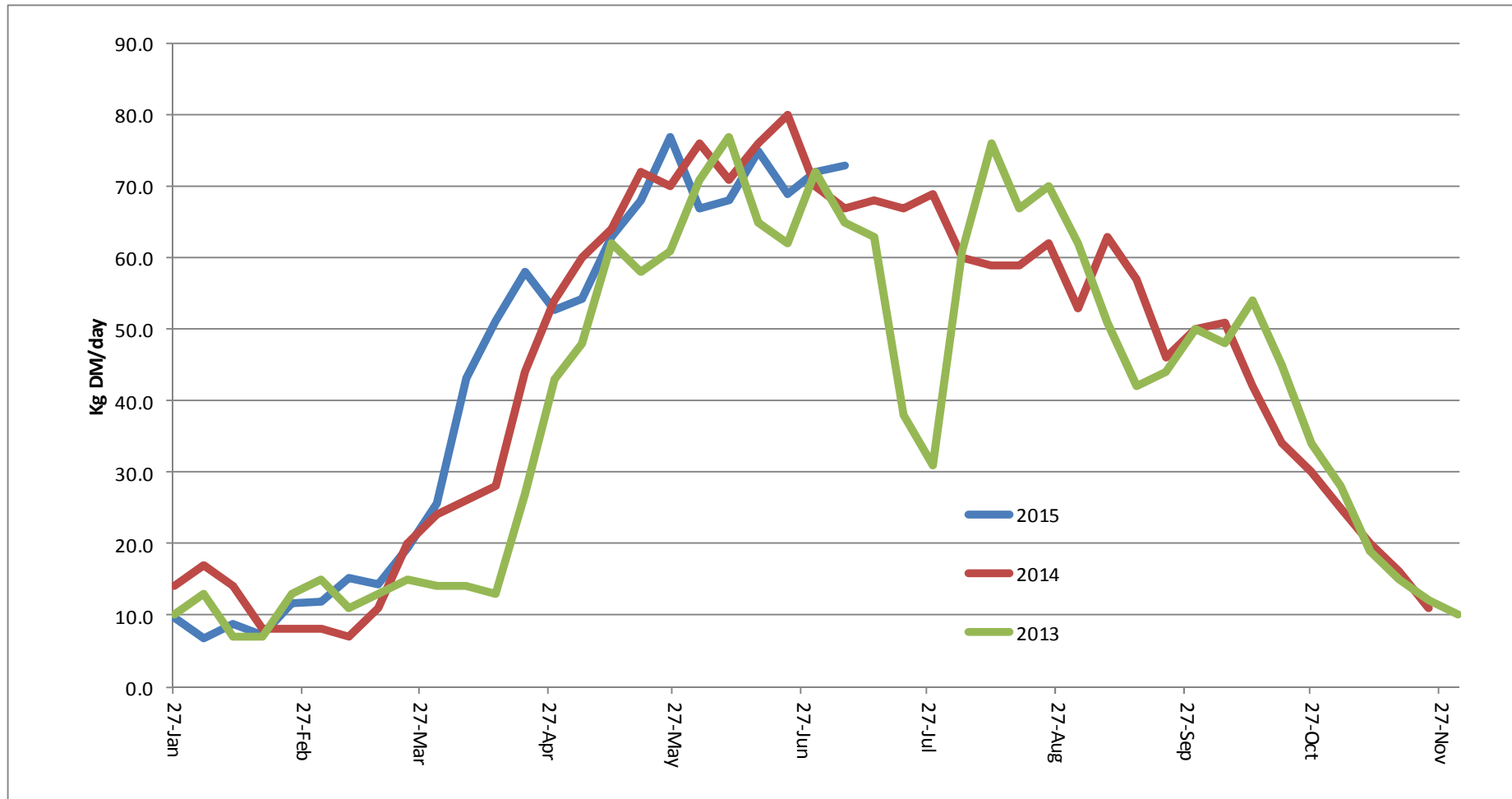
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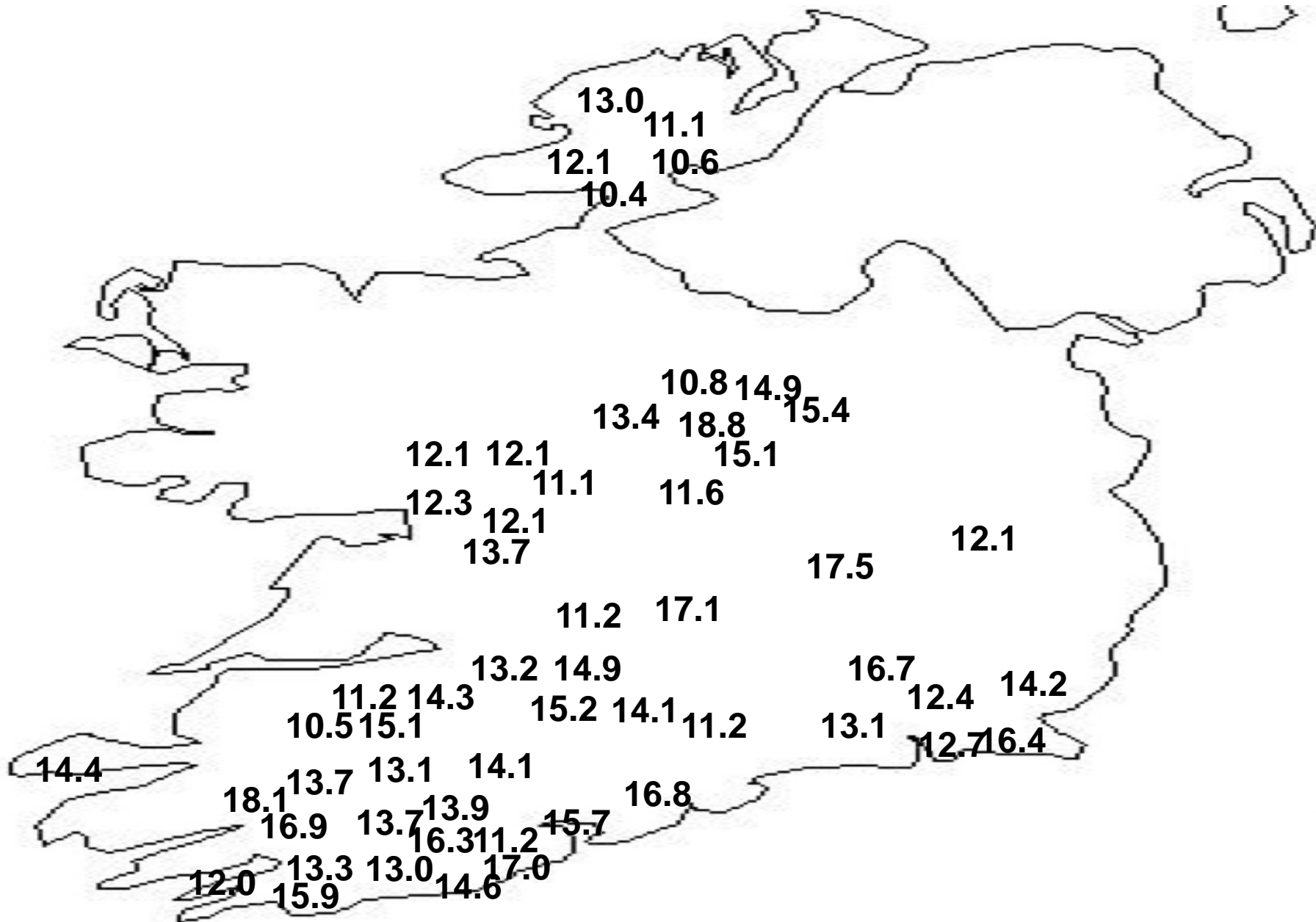The Irish Agriculture and Food Development Authority

Talk Outline

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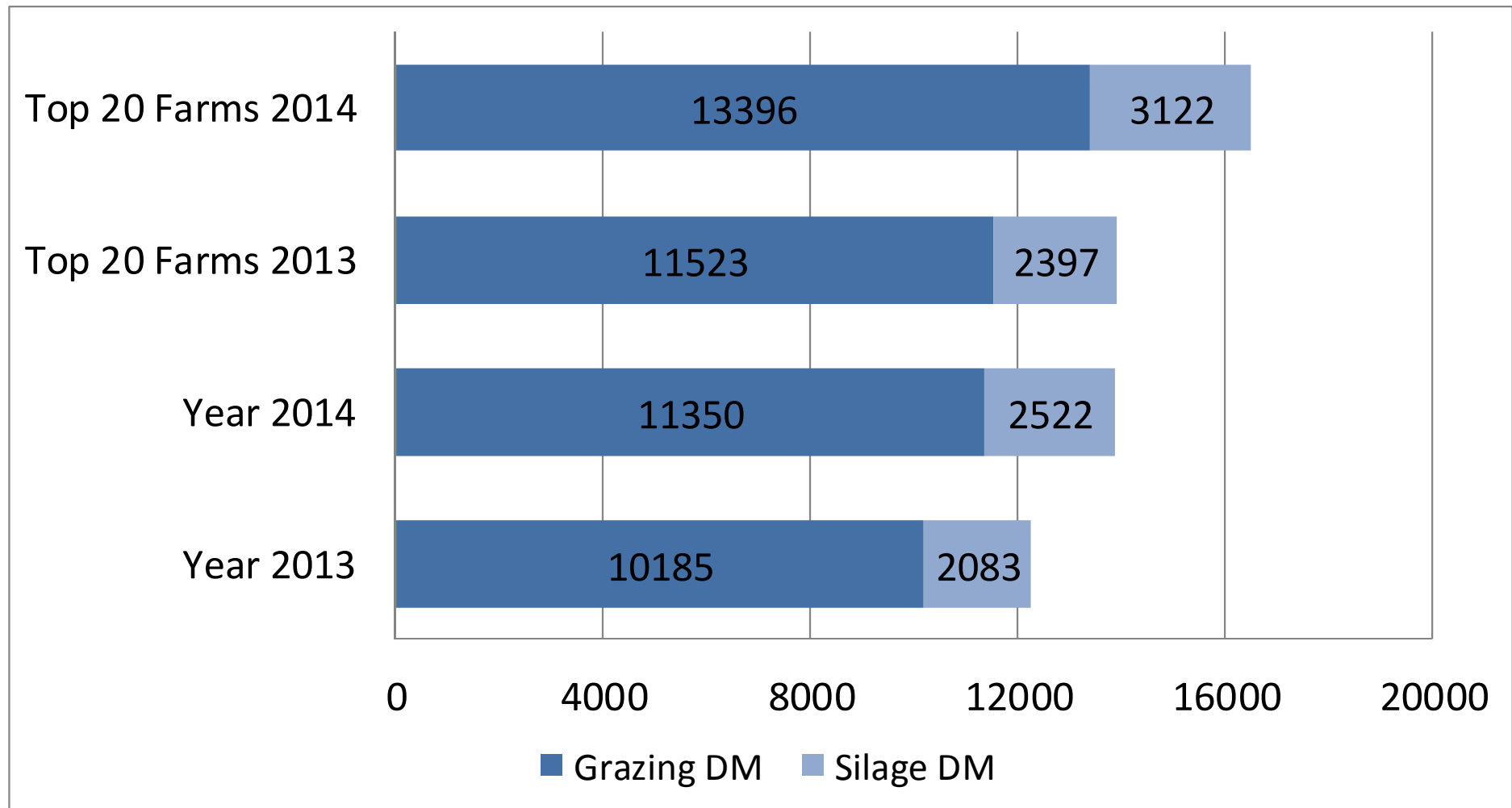- **New insights and measurements**
- **Discussion**

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**
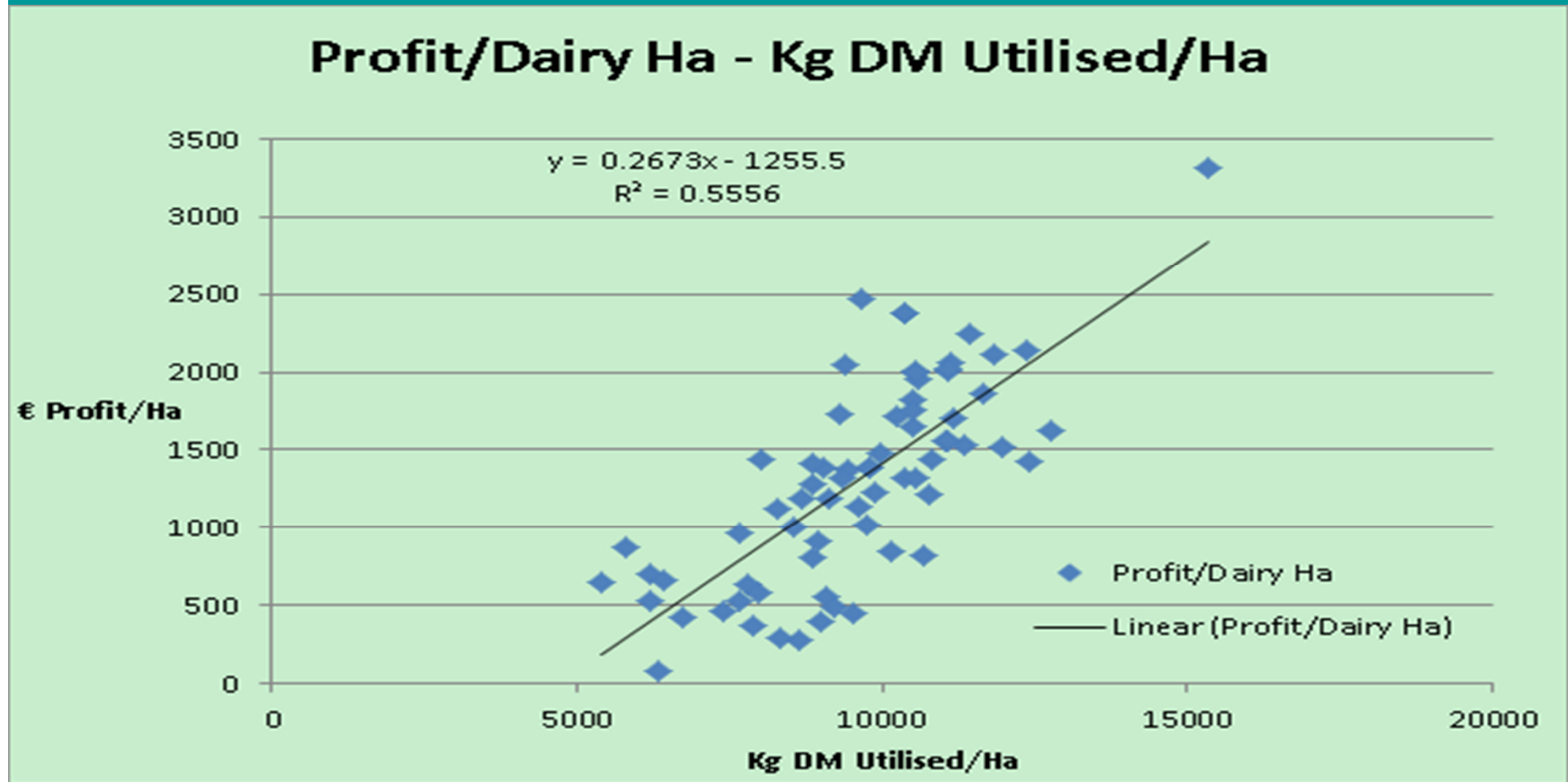
PastureBase IRELAND

Teagasc — Agriculture and Food Development Authority

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13.0
11.1
12.1   10.6
10.4

10.8 14.9
13.4 18.8   15.4
15.1
12.1 12.1
11.1   11.6
12.3
12.1
13.7   12.1
17.5
11.2   17.1
13.2 14.9
16.7
11.2 14.3   14.2
10.5 15.1 15.2 14.1   12.4
11.2   13.1
14.4   12.7 16.4
13.7 13.1 14.1
18.1   16.8
16.9 13.7 13.9
16.3 11.2 15.7
12.0 13.3 13.0   17.0
15.9   14.6

Association between grass utilised and nte profit in 2014 (Hanrahan et al, 2015)

Profit/Dairy Ha - Kg DM Utilised/Ha

y = 0.2673x - 1255.5
R² = 0.5556

€ Profit/Ha

Kg DM Utilised/Ha

♦ Profit/Dairy Ha
— Linear (Profit/Dairy Ha)

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)
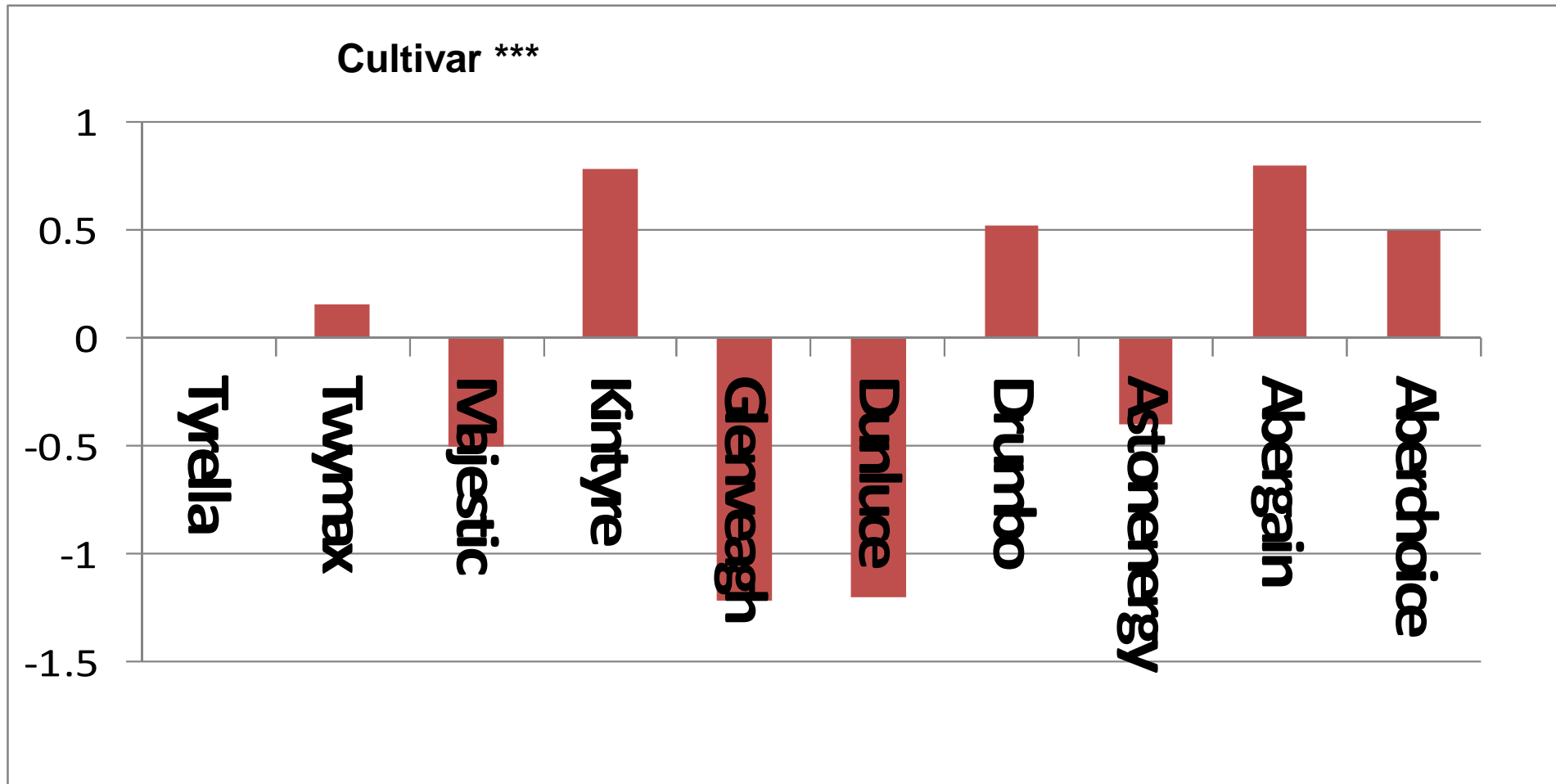
Astonenergy (17)

Dunluce (13)

Glenveagh (16)
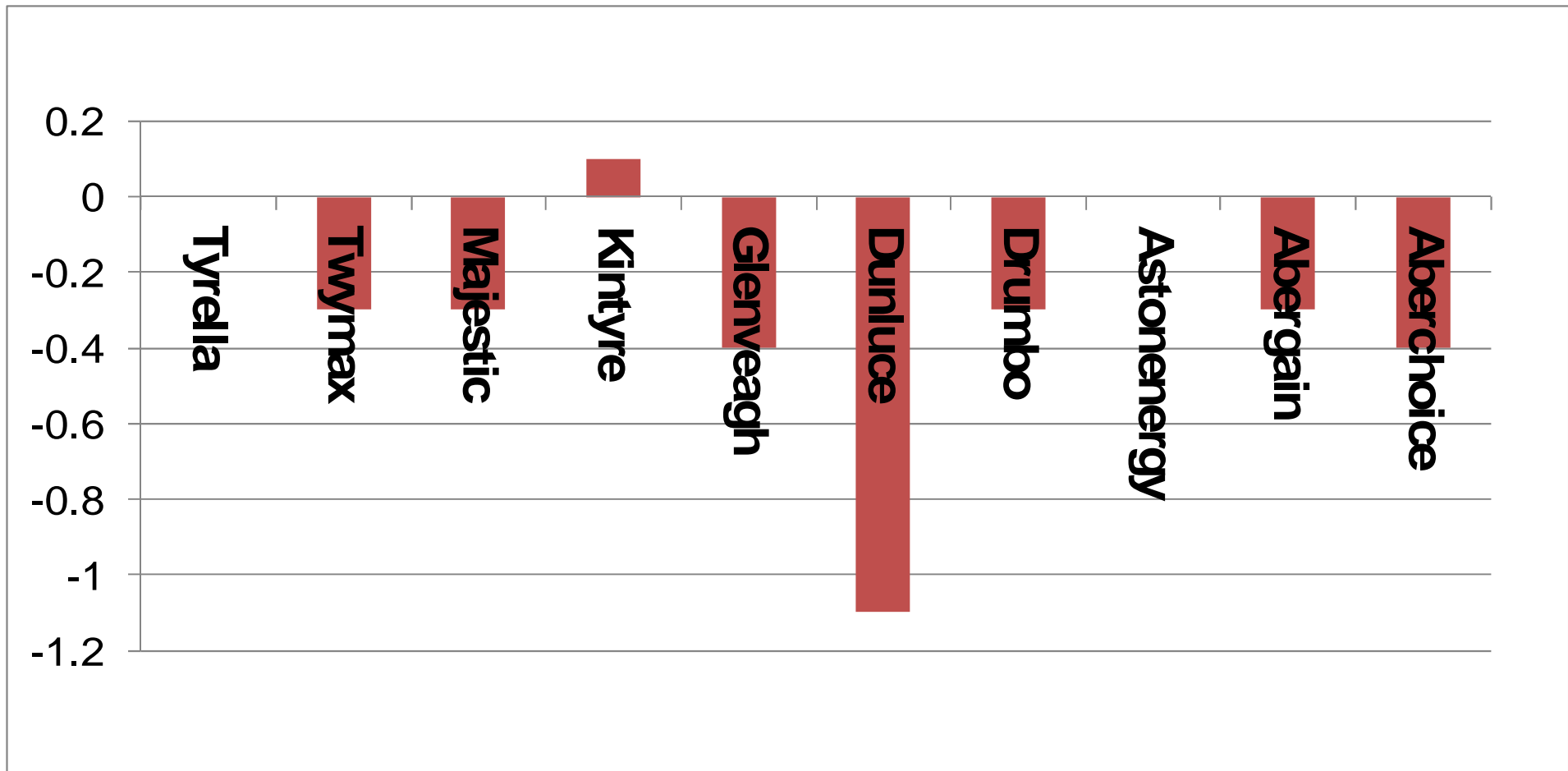
New Varieties 2015

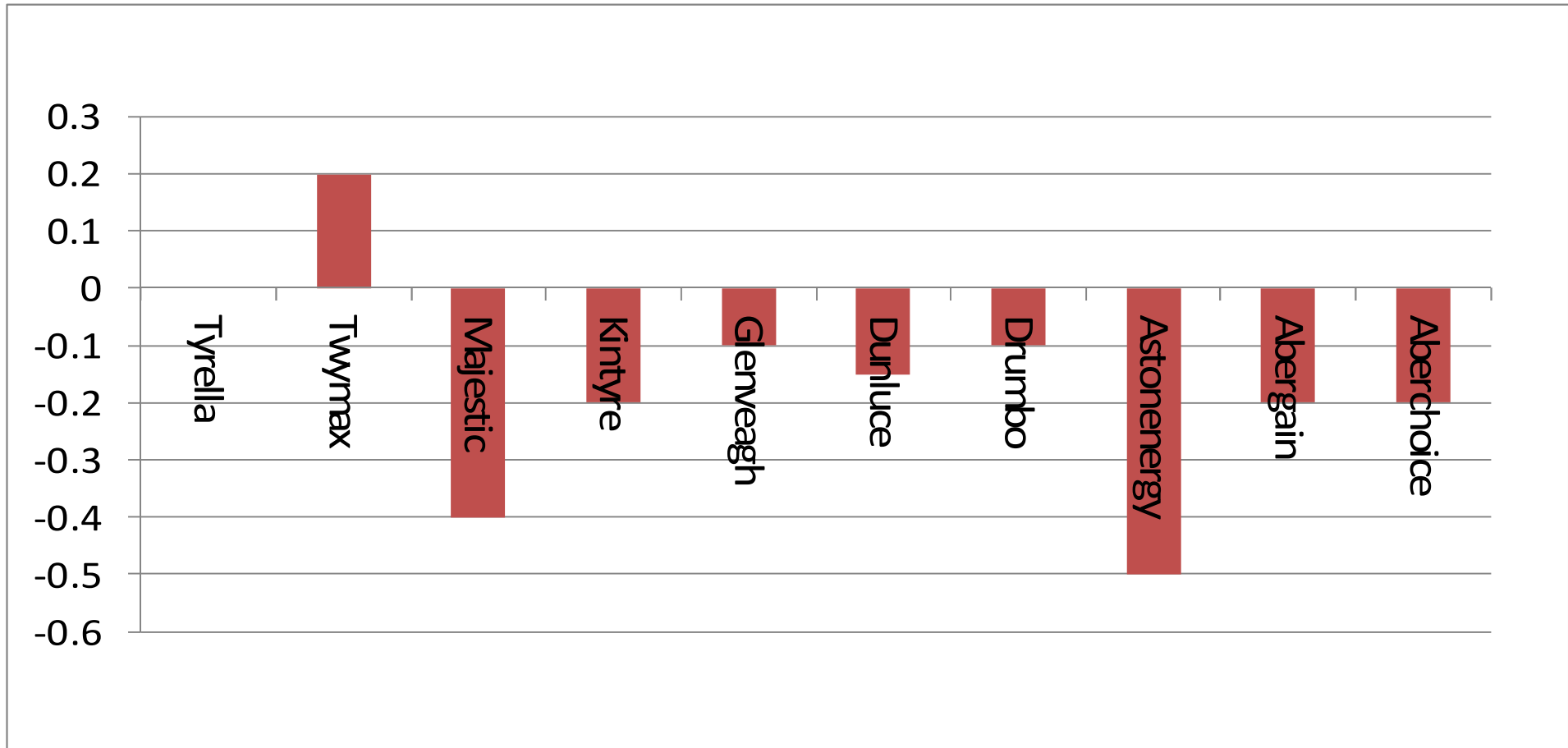AstonLord (1)

Aberwolf (5)

Clanrye (3)

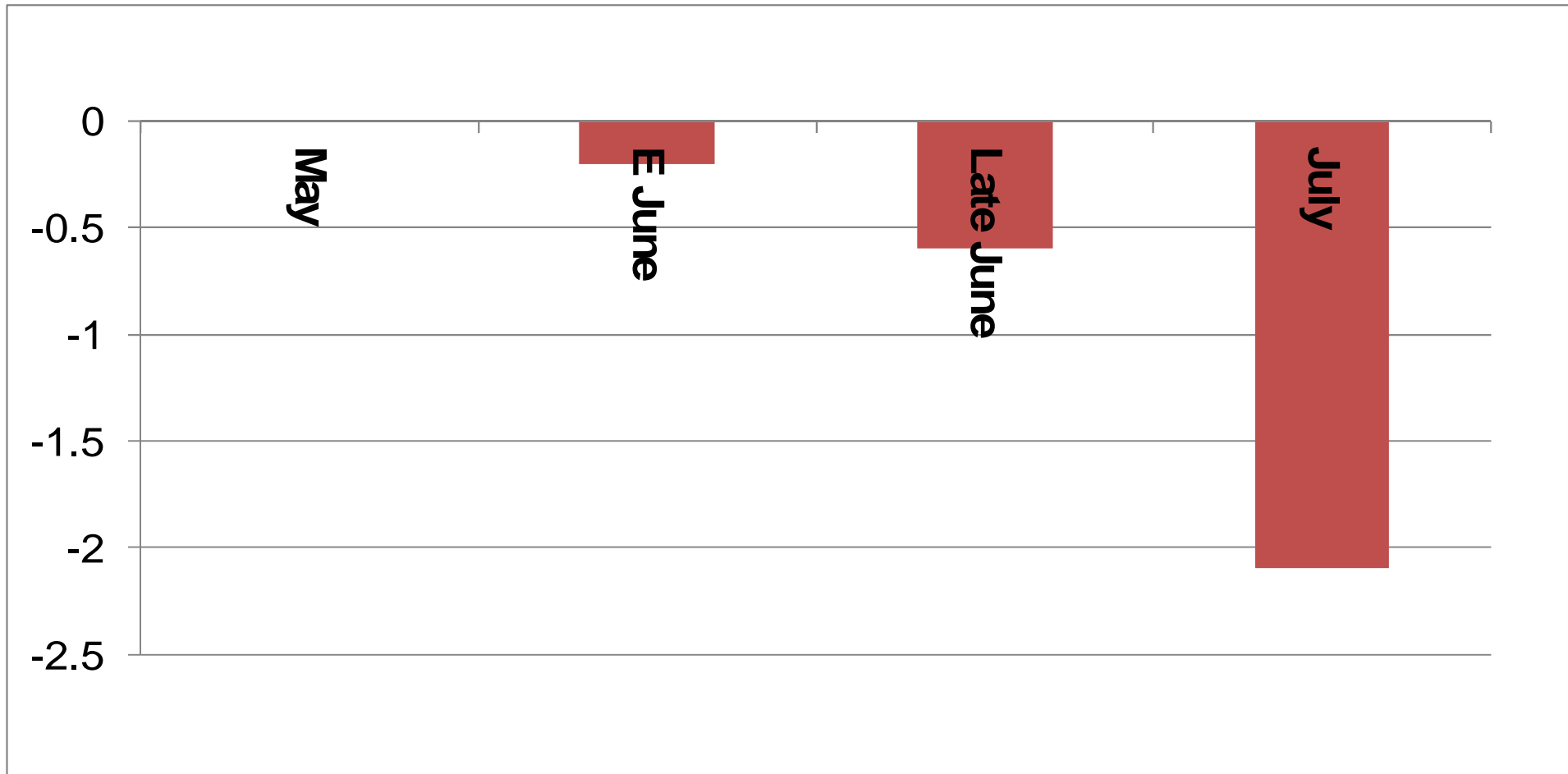# Number of Grazings achieved per cultivar (Control – Tyrella 7.1 per year)

Mean Cultivar ground score – (2013 &14 – Tyrella - 4.1)

Bar chart showing mean cultivar ground score with the following approximate values:
- Tyrella: 0
- Twymax: 0.2
- Majestic: -0.4
- Kintyre: -0.2
- Glenveagh: -0.1
- Dunluce: -0.15
- Drumbo: -0.1
- Astonenergy: -0.5
- Abergain: -0.2
- Aberchoice: -0.2

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Mean Grass DMD (June 84.6) of 33 Farms of Cultivar group

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Summary to date

- 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

Research Focus -1 - On farm

- **Establish a new control cultivar on farms – linked to previous**

- **Recruit more farms across the country and enterprises**

- **Requirements**

- **More new varieties coming through**

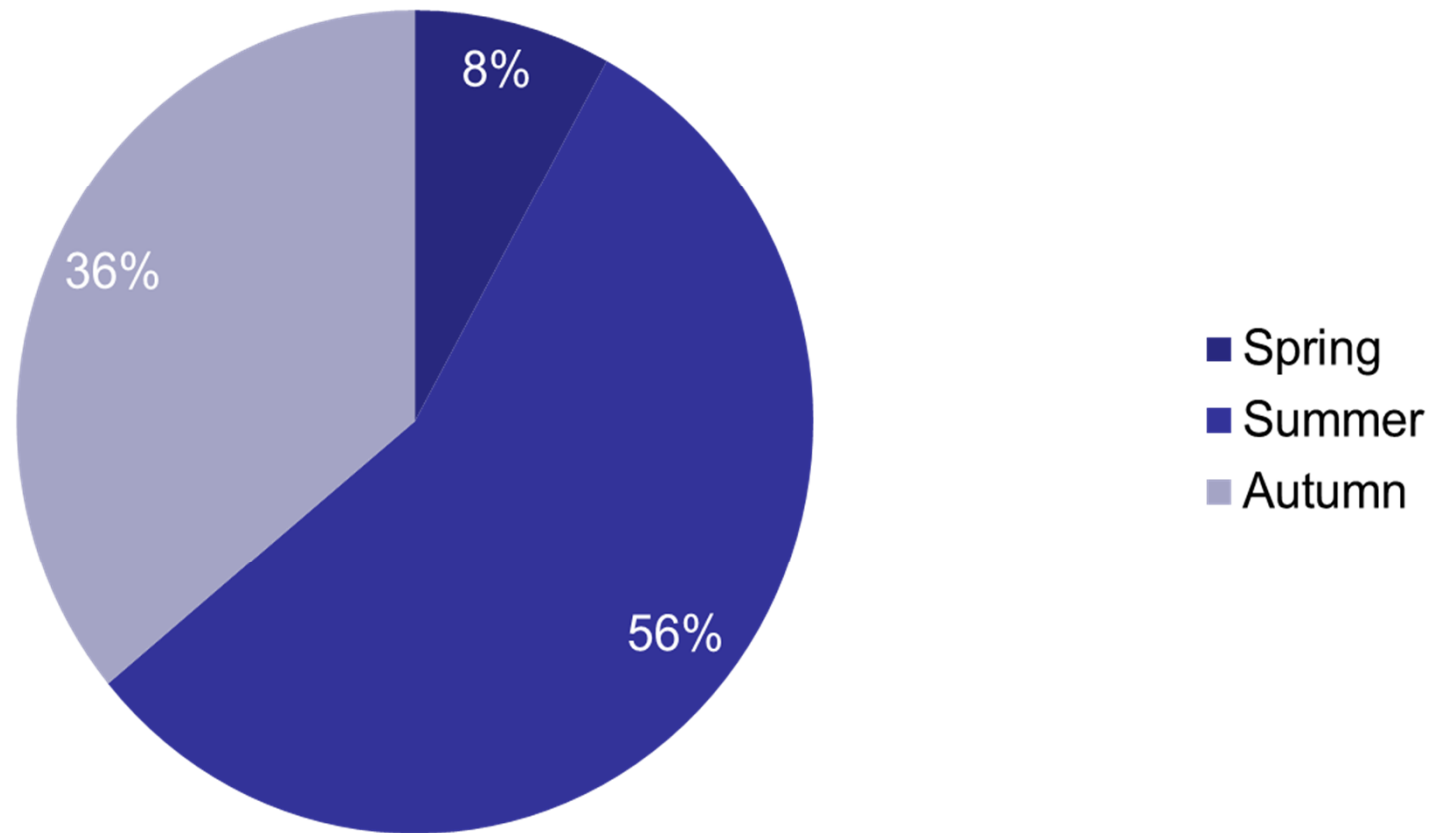- **Seed of new varieties earlier – 1 ton minimum**

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