



# Irish National List / Recommended List White Clover Variety Evaluation Trials

Industry Information Meeting  
16th September 2016

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Department of  
**Agriculture,  
Food and the Marine**

An Roinn  
**Talmhaíochta,  
Bia agus Mara**

# Topics to be Discussed



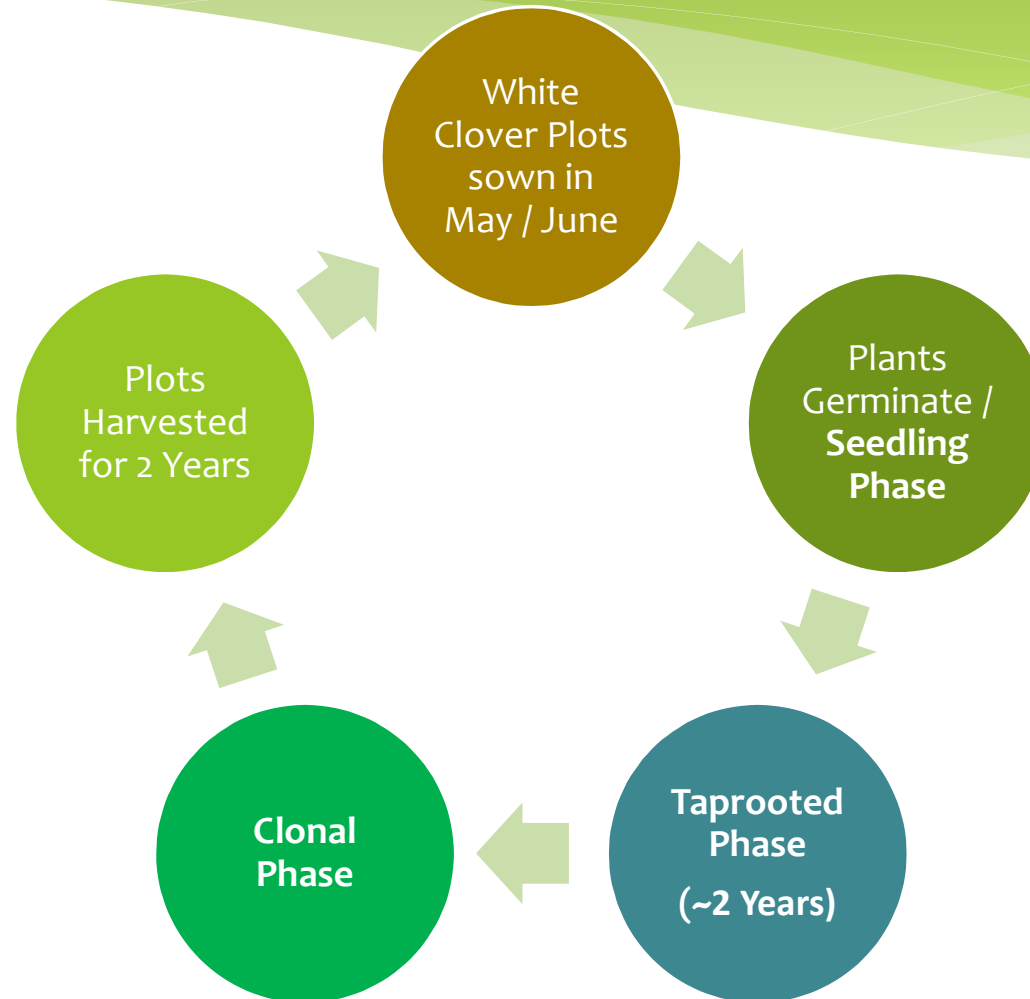
- \* DAFM White Clover Variety Evaluation System
- \* 2016 Sowings of White Clover
- \* Harvesting and DM Yields of White Clover
- \* 2016 Recommended List White Clover Varieties
- \* Summary

# White Clover Variety Evaluation



- \* DAFM evaluates White Clover at 4 different trial sites around the country; Backweston, Kildalton, Athenry and Donegal.
- \* As with PRG, there are two sowing years and two harvest years.
- \* Unlike PRG, White Clover varieties are sown every two years and not every year.
- \* White Clover varieties are given a period of almost two years to establish, before harvesting – Why?

# White Clover Variety Evaluation



# White Clover Variety Evaluation



A variety sown for the first time in 2016 will not have completed it's 4 Harvest Years until 2021

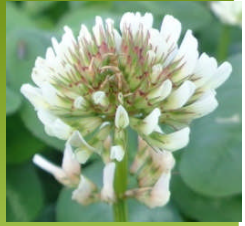


# White Clover Variety Evaluation



- \* Plots are 7m long x 1.63m wide (to plot centres) and are laid out in a randomized block design, with three replicates of each plot sown.
- \* Clover is sown at a rate equivalent to 5 Kg/ha and is sown with a companion grass (Late diploid).
- \* A grass buffer strip approx. 30cm wide is sown between plots to prevent varieties encroaching on each other.

# White Clover Variety Evaluation



- \* There are 4 control varieties in each sowing;
  - \* Barblanca & Alice (large leaf)
  - \* Chieftain & Crusader (medium leaf)

# 2016 Sowings



## 2016 White Clover Varieties

No.	Status
4	Control Varieties
3	Rec. List Varieties
4	Year 2 Varieties
10	Year 1 Varieties
<b>21</b>	<b>Total</b>



# Harvesting of White Clover



- \* Plots are harvested on a 7-Cut system.
- \* Plots receive 50 kg N/ha in early March.
- \* All plots are harvested with a Haldrup Grass Harvesting Machine and plot weights recorded for each plot.
- \* Subsamples of clover are taken and dried in industrial ovens to determine the Dry Matter of each plot.
- \* Two sites, Athenry and Donegal are grazed with sheep for approximately 24 hours following harvesting.



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# Trial Protocol



Cut 1	Cut 2	Cut 3	Cut 4	Cut 5	Cut 6	Cut 7

BW & KK



Cut 1	Cut 2	Cut 3	Cut 4	Cut 5	Cut 6	Cut 7

AY & DL

# Harvesting of White Clover

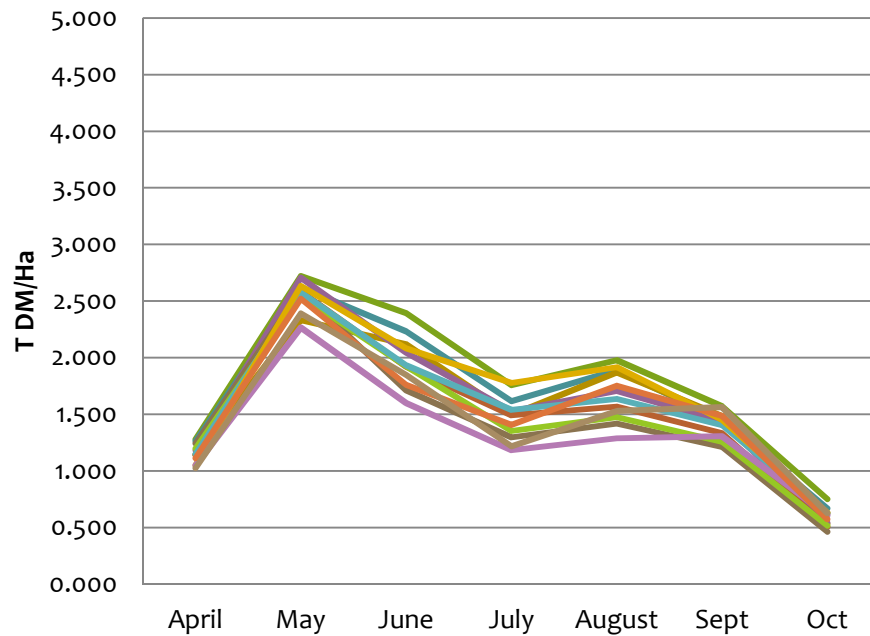


- \* Clover separations are carried out to determine the proportion of clover versus grass in the plots.
- \* This data is included in the RL tables as ‘Clover %’.

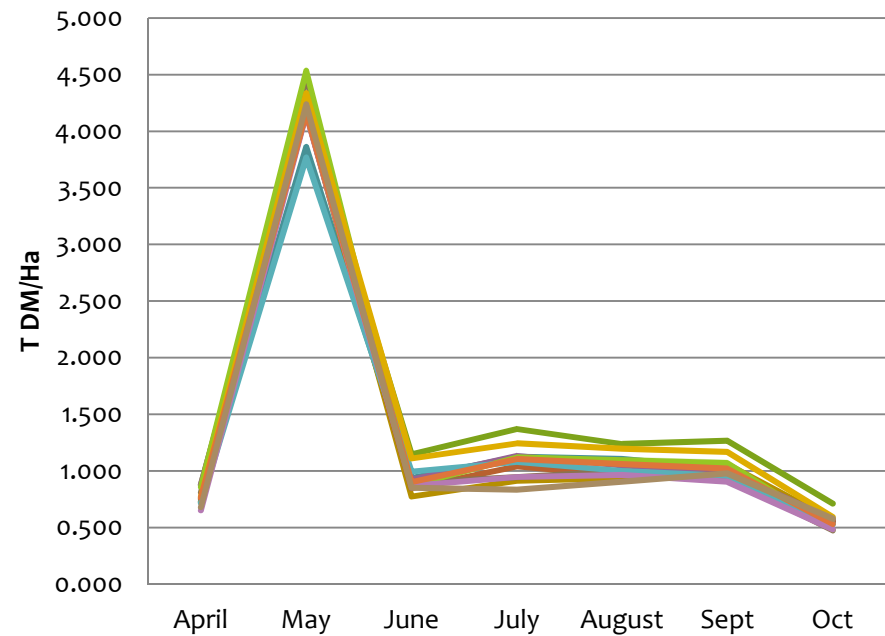
# DM Yield of Clover across the season



### 12 WC Year 1



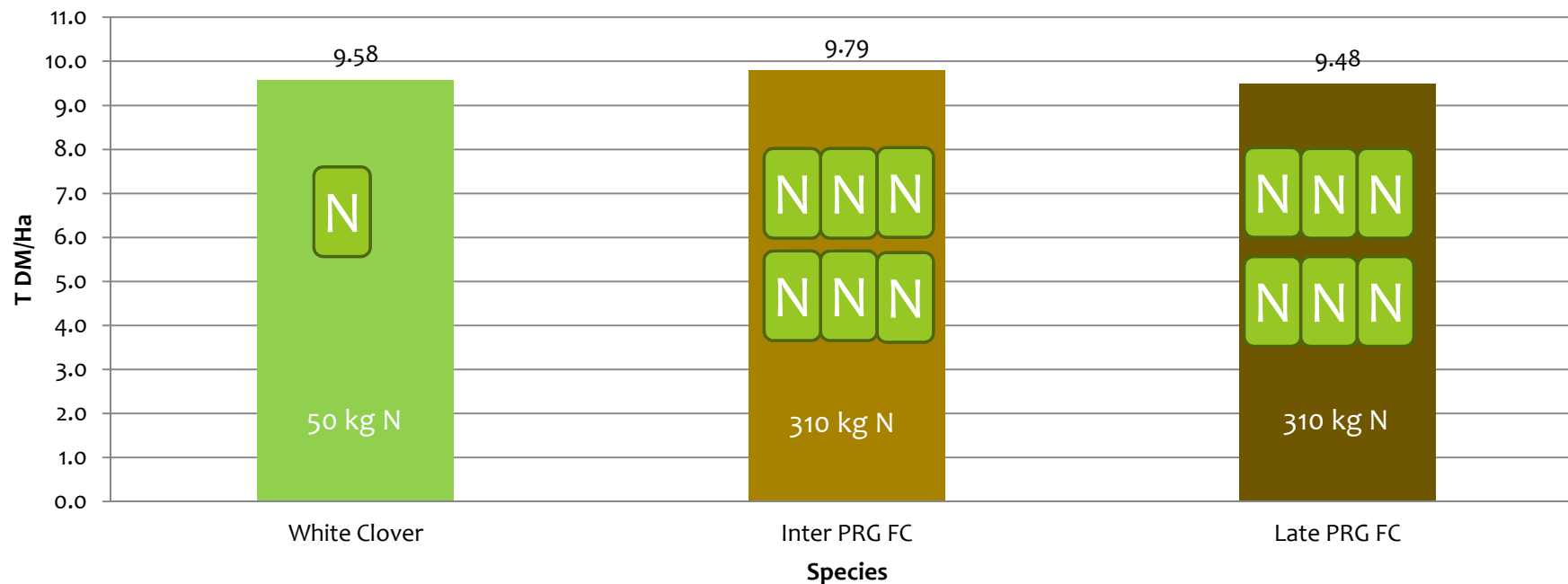
### 12 WC Year 2



# Mean Annual DM Yield of White Clover Plots vs FC PRG Plots in 2015



Total Annual DM Production of White Clover, Inter PRG and Late PRG in 2015 (Year 2 Harvest data)  
NL/RL Trials\*



\*Mean of all varieties in their respective trial. 1 Year Harvest data.



# RL 2016 - White Clover



## Grass and White Clover Varieties



**Irish Recommended List 2016**  
CROPS EVALUATION AND CERTIFICATION DIVISION



[www.agriculture.gov.ie](http://www.agriculture.gov.ie)

- \* 9 White Clover Varieties listed
- \* Varieties listed in order of leaf size (from largest to smallest)

## Recommended White Clover Varieties 2016

Variety Name	Total Yield	Leaf Size*	Clover %	Year 1 <sup>st</sup> Listed	Breeder	Origin
<i>Control Mean: (t DM/ha)</i>	9.8					
<b>Barblanca</b>	<b>105</b>	Large (0.78)	50	2009	Barenbrug	NL
<b>Alice</b>	<b>99</b>	Large (0.76)	50	1995	IBERS	UK
<b>Chieftain</b>	<b>98</b>	Medium (0.68)	47	2005	Teagasc	IRL
<b>Buddy</b>	<b>100</b>	Medium (0.63)	45	2015	Teagasc	IRL
<b>Avoca</b>	<b>103</b>	Medium (0.61)	47	1995	Teagasc	IRL
<b>Iona</b>	<b>94</b>	Medium (0.59)	44	2014	Teagasc	IRL
<b>Aberherald</b>	<b>98</b>	Medium (0.55)	45	2003	IBERS	UK
<b>Crusader</b>	<b>95</b>	Medium (0.54)	42	2009	Barenbrug	NL
<b>Aberace</b>	<b>99</b>	Small (0.38)	33	2016	IBERS	UK

In the table above varieties are listed in order of decreasing leaf size.

\*Values in brackets indicate leaf size compared to the variety Aran (i.e. Aran = 1.00), based on data from UK D.U.S. tests.

# Changes to the WC RL in the last 10 Years



## Varieties added

Name	Leaf size	Year
Aberace	Small	2016
Buddy	Medium	2015
Iona	Medium	2014
Barblanca	Large	2009
Crusader	Medium	2009

## Varieties removed

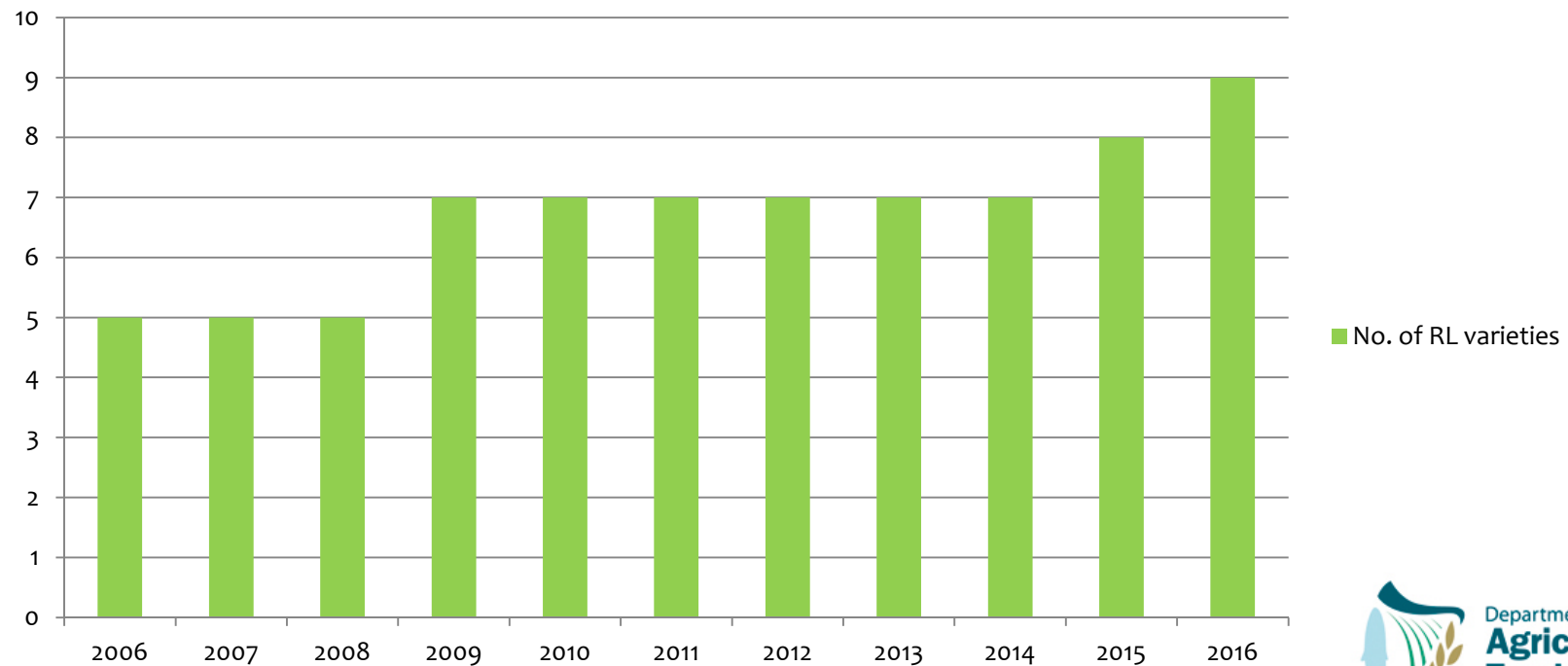
Name	Leaf Size	Year
Aran	V. Large	2014



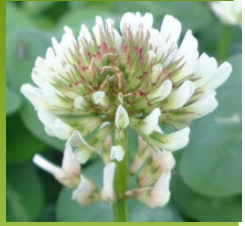
# No. of varieties recommended in the last 10 Years



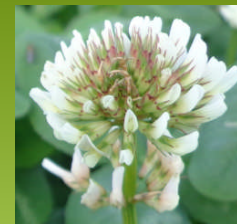
No. of WC RL varieties 2006 - 2016



# Summary



- \* Evaluation of new varieties of White Clover can take a significant amount of time.
- \* Good DM yields from relatively low levels of fertilizer.
- \* Medium leaved varieties tend to be favoured by breeders.
- \* Please use RL varieties.



Thanks for your attention  
Go raibh míle maith agaibh