



7th Annual General Meeting (AGM) of the Ireland Chinese Association of Environment, Resources & Energy (ICAERE)

Call for Papers

The 7th Annual General Meeting (AGM) of the Ireland Chinese Association of Environment, Resources & Energy (ICAERE) will be held on the **6th October 2018** in **Trinity College Dublin**, Dublin 2, Ireland. No registration fee is required.

The AGM will provide an opportunity for the presentation of new scientific information relating to **management and engineering applications of wide environment, resources & energy issues**. The 7th AGM is to share research and practical experience among scholars, especially Chinese scholars from the mainland and Ireland. It aims to enable a deeper understanding of the approaches needed for greener environment and renewable energy, and create more collaboration opportunities between China and Ireland.

Summary Papers

- **A 1-page summary is required for all students.**
- Strict guidelines are set (see accompanying page) to ensure uniformity of all 1-page summaries.
 - The paper submission deadline is **30th September 2018**. **All papers must be sent to Dr. Liwen Xiao (liwen.xiao@tcd.ie) by email.** Please note the required format of the file name (see below). **Summaries received after this date will not be accepted.**

ICAERE Committee

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ICAERE website

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7th ICAERE AGM 2018

Instructions to Authors of 1-Page Summaries

Please ensure that all authors agree to be named in the summary and that it has been thoroughly evaluated by the senior author. The summaries should be complete in themselves. The 1-page summary should be typed on A4 paper using **Times New Roman, font size 10, with single line spacing using MS Word '97 or later. The page should be divided into two columns; each with a width of 8.0 cm.** The final version of the summary should be camera ready and will be sent directly to the printers.

The following format should be followed.

Margins	Top	1.5 cm
	Bottom	1.5 cm
	Left	2.0 cm
	Right	2.0 cm

The summary (including Figures & Tables) must fit on a single page within the specified margins.

Text

Main headings in lowercase in bold to the left and over text, second order headings (if any) in lower case italics to the left and over text. References (if any, and kept to a minimum) should be inserted as (Stagg *et al.*, 1998) or Stagg *et al.* (1988), as appropriate, throughout text.

a) Title and Addresses

- The title should be written in lower case in **Times New Roman 10 bold**. Do not use abbreviations or have a full stop (point) at the end. The title should be descriptive, specific, and concise.
- Name of author(s) in lower case (Times New Roman 10) should be followed by their address in **italics** (Times New Roman 10 italics).
- **Leave one line between title and authors**

b) Introduction

- The Introduction should be brief, stating the

background and the objectives of the study.

c) Material and Methods

- The methods used should be clearly stated.
- The experimental design and the statistical methods used to analyse the data must be clear.

d) Results and Discussion

- If possible, present data in tabular or graphical format.
- Position tables in the text. They should not be larger than the width (including 2 columns) of the page. The title should be precise and placed over Tables.
- Position figures in the text. They should not be larger than the width of the page. The title should be precise and placed below Figures.

e) Conclusions

Ensure that the conclusions drawn are supported by the data presented.

f) Acknowledgements

g) References

Give authors and Journal as: Stagg, K., Spicer, L.J., Sreenan, J.M., Roche, J.F. & Diskin, M.G. (1998) *Biol. Reprod.* 59: 777-783.

Please ensure that the layout corresponds with the attached example Summary.

*All summaries **must** be sent to Dr. Liwen Xiao by email (liwen.xiao@tcd.ie).*

The **file name** should report:

- Presenter's **first name, then last name**. The **subject of the email should be the title of your presentation**.
For example: John_Smith

Irish PDI[†] values of perennial ryegrass cultivars differing in heading date and ploidy

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Introduction

Grazed grass is the predominant feed in Irish beef and dairy cattle production systems. With increasing environmental and financial pressure on agriculture, it is desirable to balance diets in cost and nutrient density ways. The PDI[†] (protein truly digestible in the small intestine) protein system has been adopted in Ireland and offers the potential to formulate dairy and beef cattle diets that reduce nitrogen (N) excretion and expensive protein supplementation. The aim of this experiment was to determine PDIA (rumen undegradable protein truly digestible in the small intestine), PDIE (true protein truly digestible in the small intestine when energy limits microbial protein synthesis) and PDIN (true protein truly digestible in the small intestine when N limits microbial protein synthesis) values of perennial ryegrass cultivars.

Materials

The cultivars (M, J, A, S), Portstewart (P) and Moorepark (M), differed in heading date (intermediate - I (S), (Nn) and late - L (P), (M)) and ploidy (diploid - D (S), (P) and tetraploid - T (Nn), (M)). Grass cuts, representative of the herbage selected by grazing dairy cows, were manually collected during May 21-26 and July 9-14 in 2001 and May 13-18, July 1-6, August 12-17 and September 1-10, 2002. The samples were frozen, ground through a 1 mm screen and analysed *in situ* rumen degradability was determined using 3 Holstein Friesian steers fitted with rumen cannulas and offered a diet of 75% grass silage and 25% concentrate. All samples were incubated together and subsequently 1 bag per sample was removed at 0, 2, 4, 8, 12, 24 and 48 h. Effective degradability of N (ED-N) for each grass was determined assuming a rumen outflow rate of 6%/h. PDI values based on the above ED-N were calculated according to Vérité and Peyraud, (1989). Data were analysed using analysis of variance and the PROC GLM statement of SAS. The model included year, time, heading date (hd), ploidy (pl) and the interactions hd × pl, time × hd, time × pl and time × hd × pl as sources of variation.

Results and Discussion

The average crude protein content was 199 (S), 203 (Nn), 191 (P) and 198 (M) g/kg DM. Calculated PDIE and PDIN values ranged from 88.9 to 99.0 and 96.0 to 134.6 g/kg DM respectively. There was no significant effect of time, hd or ploidy on PDIA, PDIE and PDIN (Table 1.) and no significant effect of year on PDIE or PDIN. There were no significant interactions between time and hd, time and ploidy or time by hd by

ploidy for PDIA and PDIN (Table 1). There was a significant interaction between time and hd for PDIE in September (Fig 1), where PDIE values obtained were greater than those reported by Bohane *et al.* (2002) which probably is a reflection of the higher OMD of the study.

Table 1. Effect of heading date and ploidy on PDIA, PDIE and PDIN (g/kg DM)

	Heading		Ploidy		SEM
	I	L	D	T	
PDIA	27.3	26.2	27.2	26.3	1.46
PDIE	95.0	94.1	95.1	94.1	0.58
PDIN	124.4	119.7	121.2	123.0	3.97

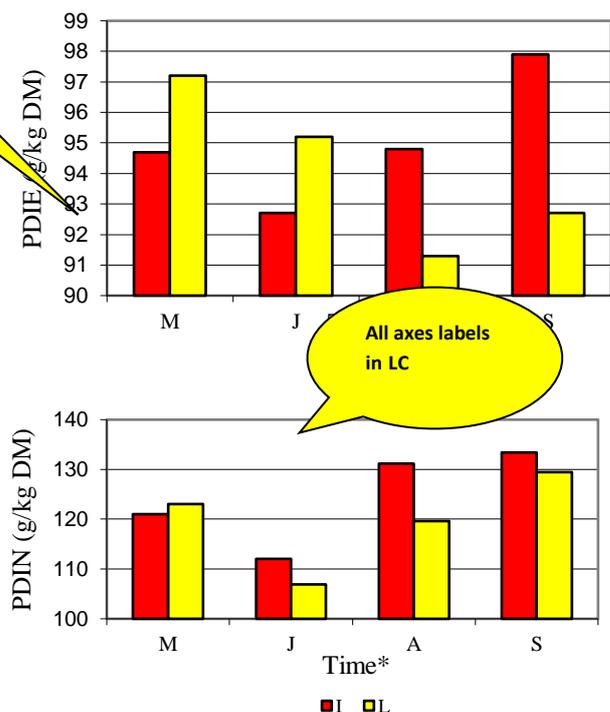


Fig. 1. Variation in PDIE (upper panel) and PDIN (lower panel) throughout the season (* M = May, J = July, A = August, S = September)

Conclusions

Year, time or ploidy did not significantly affect the PDI values of perennial ryegrass cultivars in this study. There was a significant interaction between time and heading date for PDIE only in September.

Acknowledgements

We acknowledge the Department of Agriculture.

References

- Bohane, C., Murphy, J.J., Kavanagh, S. Dillon, P. & O'Mara, F. P. (2002) *Proc. Agric. Res. Forum*, p 75
- Vérité, R. & Peyraud, J.L. (1989) *Ruminant Nutrition, Recommended allowances and feed tables*, Ed. R. Jarrige, INRA 1989