

Agricultural Research Forum 2013

www.agresearchforum.com

Call for Papers

Teagasc,
Mellows Campus
Athenry,
Co. Galway.

Phone: 091-845200
Fax: 091-845847

Email: michael.diskin@teagasc.ie
12th October 2012

- The Annual Meeting of the Agricultural Research Forum will be held in the **Tullamore Court Hotel, Tullamore, Co Offaly on 11th & 12th March 2013.**

The objective of the meeting is to provide an opportunity for the presentation and publication of new scientific information relating to the Sciences of Agriculture (including animal and crop science, molecular biology and biotechnology), Environment, Soil, Food, Agri-Economics and Forestry. The conference places emphasis on novel, high quality research and on the professional presentation of results. The forum will provide an opportunity for scientists, specialists, advisors and others working in the above areas to interact and exchange views. Participation by industry personnel is particularly welcome.

- **Presentation Types**
 - **Standard Theatre Presentations.** A total of 15 minutes will allocated (10 minutes for presentation, 4 minutes for discussion, 1 minute for speaker transition)
 - **Review Papers.** There will be an opportunity for one review paper in each themed session (20 minutes for presentation, 9 minutes for discussion and 1 minute for speaker transition). Reviews must be comprehensive, up-date and of current scientific interest. Authors should send me a title for consideration by 7th December 2012. If the authors wish, the review can be published in the Conference Proceedings.
 - **3-Minute Oral Presentations.** The remainder of the papers will be presented as 3-Minute Oral Presentations with no questions/discussion. The 3-minute presentations will be incorporated into regular sessions. There will be no posters in 2013.
- **Summary Papers**
 - A 1-page summary is required for all contributions unless the full review is published.
 - Strict guidelines are set (see accompanying page) to ensure uniformity of all 1-page summaries
 - No abstract will be required as the only publication will be the edited proceedings
 - All summaries and reviews will be subject to peer review.
- The objectives of the peer review are to ensure satisfactory scientific and presentational standards rather than to reject papers.
 - After review, the 1-page summary and reviews will (if necessary) be returned to authors for amendments. Authors may be requested to combine summaries if the results are from the same study/database. Summaries that fail to meet the requisite scientific standard will be rejected without an opportunity for resubmission.
- The summaries and reviews will be published in bound proceedings of the Forum that will have an ISBN number. All summaries will also be placed on the Agricultural Research Forum Website (www.agresearchforum.com).

- Summaries based on preliminary results or on inadequate replication or inadequate/inappropriate statistical analysis will not be accepted.
- Student supervisors are requested to ensure that all 1-page summaries are approved by them prior to submission, conform to the guidelines and attain the requisite scientific standard.
- The deadline for receipt of completed summaries is **Friday 7th December 2012**. **All summaries must be sent to me (Michael.diskin@teagasc.ie) by email. Summaries received after this date will not be accepted.**
- A conference dinner will be held on Monday 11th March 2013. Details regarding this and accommodation will be circulated at a later date and placed on the Web-site. www.agresearchforum.com
- There will be a reduced conference rate for registered post-graduate students.
- There may be a Plenary Session in 2013
- First named authors will be allowed, at a maximum, **one-theatre presentation and two 3-minute presentations at the 2013 Conference**.
- **Authors must not submit summaries which are already submitted to or published in the Proceedings of other scientific conferences.**

Yours sincerely,

Michael G. Diskin
Chairperson

*****PLEASE CIRCULATE TO YOUR COLLEAGUES*****

Organising Committee: Drs P. O'Kiely, A. Moloney, A.F. Carson, T.McCabe, D Kenny, D. Forristal, F Thorne, C. Boyle, E. Donald, N. Holden, M. Wallace, K. Richards, B. Younge, M. Danaher, D. Berry, M.O'Donovan, M.E. Beltman, M.G. Diskin. S Caffrey.

**Agricultural Research
Forum 2013**

Instructions to Authors of 1-Page Summaries

The 1-page summary allows your proposed paper to be evaluated for scientific content. Accepted papers and reviews will be published in hard copy format and also placed on the Forum Website and therefore must be suitable as a scientific reference. Submission of a summary is deemed a commitment to present your paper. Please ensure that all authors agree to be named on the summary and that it has been thoroughly evaluated by the senior author. 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

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). Indicate the presenting author if not first author.
- 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 including the numbers and type of animals (if applicable) and / or number of replicates 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.
- Treatment means should be presented with appropriate standard errors of means or differences.
- The minimum number of decimal places required to demonstrate significant differences should be used.
- Probability levels must be presented to support conclusions. Probability values of $P > 0.05$ are not significant.
- The use of percentages should be avoided (if possible) with concentrations or compositions expressed as mass per unit mass or mass per unit volume. Decimal proportions should be used for common ratios such as digestibility.
- 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.* 59:777-78

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

Number of papers per first author

Indicate whether you wish to present your paper as a theatre or as a poster. First named authors will be allowed, at a maximum, one-theatre presentation and 2 three-minute theatre/poster presentations at the 2013 Conference.

Dr Michael G. Diskin

Teagasc, Athenry,

Co. Galway,

Ireland.

Tel: 091-845200, Fax: 091-845847,

Email: michael.diskin@teagasc.ie

All summaries must be sent to me by email

The deadline for receipt of 1-page summary is Friday 7th December 2012.

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

V. Olsson^{1, 3}, J.J. Murphy¹, F.P. O'Mara², M.A. O'Donovan¹ and F.J. Mulligan³
¹Dairy Production Department, Teagasc, Moorepark, Fermoy, Co. Cork, ²Department of Animal Science and Production, ³Department of Animal Husbandry and Production, University College Dublin, D4

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 content 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 synthesis) and PDIN (true protein truly digestible in the small intestine when N limits microbial synthesis) values for a variety of Irish grasses.

Materials and Methods

Four cultivars of perennial ryegrass (Nn), Portstewart (P) and Millennium (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 9-14 in 2002. The samples were frozen, chopped, freeze-dried, milled through a 1 mm screen and pooled by sampling time. *In situ* rumen degradability was determined using 3 Holstein Friesian steers. Each steer was offered a diet of 75% grass and 25% concentrate. All samples were incubated in 100 ml frequently 1 bag per sample was removed at 0, 2, 4, 8, 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

Average *in vitro* organic matter digestibility for the cultivars was 882 (S), 880 (Nn), 892 (P) and 889 (M) g/kg DM respectively. 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 or PDIN. There were no significant interactions between time and hd, time and ploidy or time by hd by ploidy for PDIA and PDIN. There was a significant interaction between time and heading date for PDIE ($p < 0.05$) where L had a significantly lower PDIE than I in September (Fig 1). The PDIE values obtained were greater than those reported by Bohane *et al.* (2002) which probably is a reflection of the higher OMD of the grass in this 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

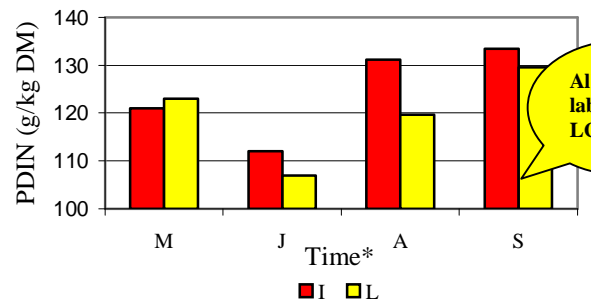
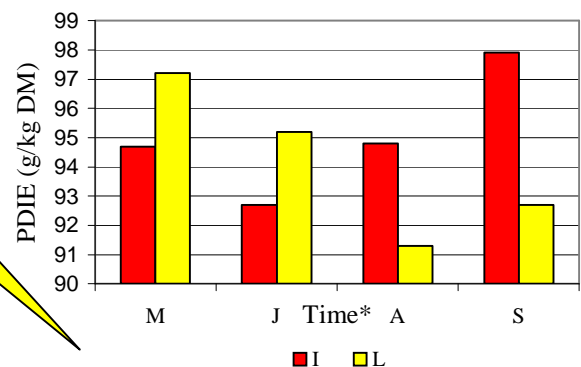


Fig. 1. Variation in PDIE (upper panel) and PDIN (lower panel) throughout the season (* M = May, J = July, A = August, S = September)

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 and Food Stimulus Fund for financial support

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