



BRITISH GRASSLAND SOCIETY

13th Research Conference Multi-species swards



PROGRAMME

DAY 1: TUESDAY 2 MARCH 2021

- 10:00 **Welcome and Introduction by BGS President Drew McConnell**
- 10:10 **Session I: ESTABLISHMENT**
Chair: Paul Muto
- 10:15 **200 years of herbal leys**
I. Wilkinson
Cotswold Seeds
- 10:45 **Toolbox of multi-species swards: investigating UK farmers' perceptions about costs and benefits of diverse leys**
B.C. Stagg, G. Eales, H.E. Jones and S. Roderick
Duchy College
- 11:00 **Break**
- 11:10 **An annual assessment of N₂O emissions from multi-species grasslands**
S.Cummins¹ J.Finn¹ K.Richards¹ G.Lanigan¹ T.Misselbrook² L.Cardenas² C.Reynolds³ and D.Krol¹
¹ Teagasc, ² Rothamsted Research, ³ University of Reading
- 11:25 **Annual biomass yield and composition of three multi-species forage mixtures compared with perennial ryegrass**
Z.E. Barker¹, A.T. Thomson¹, D.J. Humphries¹, H.E. Jones^{1,3}, T. Misselbrook², D. Beaumont², M. Lukac¹, L. Wu², and C.K. Reynolds¹
¹University of Reading, ²Rothamsted Research, ³Duchy College
- 11:40 **Effect of soil moisture on biomass and species composition of three multi-species swards compared with perennial ryegrass**
Z.E. Barker¹, A.T. Thomson¹, D.J. Humphries¹, H.E. Jones^{1,3}, T. Misselbrook², D. Beaumont², M. Lukac¹, L. Wu², and C.K. Reynolds¹
¹University of Reading, ²Rothamsted Research, ³Duchy College
- 11:55 **Alternative forage systems for marginal land**
C. Duller
Independent grassland consultant
- 12:10 **Closing of session – Paul Muto**

DAY 2: WEDNESDAY 3 MARCH 2021

- 10:00 **Session II: SWARD MANAGEMENT FOR GRAZING AND CONSERVATION**
Chair: Chris Reynolds
- 10:05 **Species diversity in intensively managed grasslands can promote ecosystem multifunctionality and help protect against the impact of extreme weather events**
C. Brophy
Trinity College Dublin
- 10:35 **Trade-off between forage quality and yield by adapting the harvest regime to promote flowering in ley grassland**
M. Komainda¹, P. Muto² and J. Isselstein^{1,3}
¹Georg-August University Göttingen, Germany, ²Natural England ³Centre of Biodiversity & Sustainable Land Use, Germany
- 11:05 **Break**
- 11:15 **How well is the legume and herb-rich ley option implemented under environmental stewardship?**
P. Muto¹, N. Jones², P. Newell Price³, R. Macarthur², K. Micklewright², S. Conyers² and C. Forster-Brown³.
¹Natural England, ²FERA Science Ltd., ³ADAS
- 11:30 **The toolbox of multi-species swards (TOMS): the potential role of improving on-farm natural capital with herbal leys in Cornwall.**
H.E. Jones¹, D. Beaumont², G. Eales¹, K. Le Cocq², S. Roderick¹ and B.C. Stagg²
¹Duchy College, ²Rothamsted Research
- 11:45 **Virtual tour of CEDAR**
Chris Reynolds
- 12:10 **Closing of session – Chris Reynolds**

DAY 3: THURSDAY 4 MARCH 2021

- 10:00 **Session III: UTILISATION AND FEEDING VALUE**
Chair: Tom Goatman
- 10:05 **Multi-species swards increase biodiversity, earthworm populations and animal performance in sheep production systems**
T.M. Boland, C. Grace, M.B. Lynch, R. Fritch, S. Lott and H. Sheridan.
University College, Dublin
- 10:35 **Micronutrient content of forages with differing root systems**
C.L. Marley, R. Fychan, J.W. Davies, M.B. Scott and R. Sanderson
IBERS
- 10:50 **Growth rates of beef steers fed forage mixtures over two complete grazing seasons**
D.J. Humphries¹, A. Thomson¹, Z.E. Barker¹, H.E. Jones^{1,3}, T. Misselbrook², D. Beaumont², M. Lukac¹, L. Wu², and C.K. Reynolds¹
¹University of Reading, ²Rothamsted Research, ³Duchy College.
- 11:05 **Break**

DAY 3: THURSDAY 4 MARCH 2021

- 11:15 **Comparison of forage digestibility and methane emission for cattle fed on pastures of increasing species complexity compared with N fertilized perennial ryegrass**
D.J. Humphries¹, Z.E. Barker¹, A. Thomson¹, H.E. Jones^{1,3}, T. Misselbrook², D. Beaumont², M. Lukac¹, L. Wu², and C.K. Reynolds¹
¹University of Reading, ²Rothamsted Research, ³Duchy College
- 11:30 **Panel discussion**
- 12:05 **Conference closing remarks – Drew McConnell**

POSTER PRESENTATIONS

- 1 Multi-species grazing ley established by min-till or ploughing**
H.G. Powell, R. Fychan and C.L. Marley
IBERS
- 2 Establishment of a farm network to investigate the long term impacts of leys in rotations**
E. Sagoo, A. Bhogal, J.R. Williams, J.P. Newell Price and L. Tatnell
ADAS
- 3 Plant diversity affects grassland yield and nitrogen use efficiency**
G. Grange^{1,2}, J.A. Finn¹ and C. Brophy²
¹Teagasc, ²Trinity College Dublin
- 4 Future forages: Assessing forage of today for climate change conditions of the future**
E.H. Hart¹, S. Christofides¹, C.T. Muller², H. Rodgers² and A. H. Kingston-Smith¹
¹IBERS, ²Cardiff University
- 5 Insights for sward management using LINGRA-N as an interactive learning tool**
P.J. Burgess¹, M. Giannitsopoulos¹, M. Bell², G.M. Richter³, C.F.E. Topp⁴, J. Ingram⁵ and T. Takashashi³
¹Cranfield University, ²University of Nottingham, ³Rothamsted Research, ⁴SRUC, ⁵University of Gloucester
- 6 The VOC signature of ryegrass subjected to environmental and rumen stress**
S.R. Christofides¹, E. Hart², T. Davies², H.J. Rodgers¹, C.T. Müller¹ and A. Kingston-Smith²
¹Cardiff University, ²IBERS
- 7 Effect of two ensiling systems on efficiency and silage quality**
R. Fychan, R. Sanderson and C.L. Marley
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