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Research outputs

Sustainability of bioenergy: Mapping the risks & benefits to inform future bioenergy systems

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Building the Policy Ecosystem in Europe for Cultivation and Use of Perennial Biomass Crops

Clifton-Brown, J., Hastings, A., von Cossel, M., Murphy-Bokern, D., McCalmont, J., Whittaker, J., Alexopoulou, E., Amaducci, S., Andronic, L., Ashman, C., Awty-Carroll, D., Bhatia, R., Breuer, L., Cosentino, S., Cracraft-Eley, W., Donnison, I., Elbersen, B., Ferrarini, A., Ford, J., Gattinger, A., & 29 others Golicz, K., Greef, J., Ingram, J., Jensen, E., Kuhn, U., Lewandowski, I., Magenau, E., Mos, M., Meyer, H., Kasperezyk, N., Petrick, M., Pogrzeba, M., Pude, R., Robson, P., Retzler, C., Rowe, R. L., Sandu, A., Schmitt, A., Schwarz, K. U., Scordia, D., Scurlock, J., Shepherd, A., Thornton, J., Trindade, L. M., Vetter, S., Wagner, M., Yamada, T. & Kiesel, A., 8 Jun 2023, *31st European Biomass Conference and Exhibition EUBCE 2023*. EUBCE, p. 352-362 11 p. (European Biomass Conference and Exhibition Proceedings).

An analysis of Earth temperature and related series in air and soil

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Perennial biomass cropping and use: shaping the policy ecosystem in European countries

Clifton-Brown, J. C., Hastings, A., von Cossel, M., Murphy-Bokern, D., McCalmont, J., Whittaker, J., Alexopoulou, E., Amaducci, S., Andronic, L., Ashman, C., Awty-Carroll, D., Breuer, L., Cosentino, S., Cracraft-Eley, W., Donnison, I., Elbersen, B., Ferrarini, A., Ford, J., Greef, J. M., Ingram, J., & 19 others Lewandowski, I., Magenau, E., Mos, M., Petrick, M., Pogrzeba, M., Robson, P., Rowe, R. L., Sandu, A., Schwarz, K-U., Scordia, D., Scurlock, J., Shepherd, A., Thornton, J., Trindade, L. M., Vetter, S., Wagner, M., Wu, P-C., Yamada, T. & Kiesel, A., May 2023, In: *Global Change Biology*. Bioenergy. 15, 5, 21 p., 13038.

Novel Miscanthus hybrids: Modelling productivity on marginal land in Europe using dynamics of canopy development determined by light interception

Shepherd, A., Awty-Carroll, D., Kam, J., Ashman, C., Magenau, E., Martani, E., Kontek, M., Ferrarini, A., Amaducci, S., Davey, C., Jurišić, V., Petrie, G-J., Al Hassan, M., Lamy, I., Lewandowski, I., de Maupeou, E., McCalmont, J., Trindade, L. M., van der Cruijsen, K., van der Pluijm, P., & 6 others Rowe, R., Lovett, A., Donnison, I. S., Kiesel, A., Clifton-Brown, J. C. & Hastings, A., Apr 2023, In: *Global Change Biology*. Bioenergy. 15, 4, p. 444-461 18 p.

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Statistical testing of range-size change as affected by the extremes of seasonal maximum temperatures.

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Uncertain effectiveness of *Miscanthus* bioenergy expansion for climate change mitigation explored using land surface, agronomic and integrated assessment models

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On the application of the Mitscherlich-Baule equation to fertilizer response data

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Quantifying the land-based opportunity carbon costs of onshore wind farms

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Scotland's onshore wind energy generation, impact on natural capital & satisfying no-nuclear energy policy

Shepherd, A., Roberts, S., Sünnenberg, G., Lovett, A. & Hastings, A., 7 Nov 2021, In: Energy Reports. 7, p. 7106-7117 12 p.

Uncertainty of modelled bioenergy with carbon capture and storage due to variability of input data

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Ensemble modelling, uncertainty and robust predictions of organic carbon in long-term bare-fallow soils

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Special Features of the SPACSYS Modeling Package and Procedures for Parameterization and Validation

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Climate change and future flows of Rocky Mountain rivers: Converging forecasts from empirical trend projection and down-scaled global circulation modelling

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Press/Media

Blog for Climate Exp0 conference

Anita Shepherd

19/05/21

1 Media contribution

Blog: Bioenergy from miscanthus

Anita Shepherd

19/02/21

1 Media contribution

Blog: Projections and uncertainties of miscanthus

Anita Shepherd

25/03/21

1 Media contribution

Blog: Why miscanthus needs upscaling

Anita Shepherd

28/04/21

1 Media contribution

Commercial & environmental benefits of Miscanthus

Anita Shepherd & Astley Hastings

1/07/20

1 item of Media coverage

Commercial miscanthus video made by GCB Bioenergy journal

Anita Shepherd & Astley Hastings

2/07/20

1 Media contribution

Expanding the Miscanthus market in the UK

Rebecca von Hellfeld, Astley Hastings, Jason Kam, Rebecca Rowe, John Cedric Clifton-Brown & Anita Shepherd

16/09/22

1 Media contribution

Terravesta: New study - Commercial benefits of #Miscanthus highlighted

Anita Shepherd

1/07/20

3 Media contributions

Awards

Projects