

Aberystwyth University

Mineral concentrations in solid fuels from European semi-natural grasslands after hydrothermal conditioning and subsequent mechanical dehydration

Hensgen, F.; Buehle, L.; Donnison, I. S.; Fraser, M. D.; Vale, J.; Corton, J.; Heinsoo, K.; Melts, I.; Wachendorf, M.

Published in:

Bioresource Technology

DOI:

[10.1016/j.biortech.2012.05.035](https://doi.org/10.1016/j.biortech.2012.05.035)

Publication date:

2012

Citation for published version (APA):

Hensgen, F., Buehle, L., Donnison, I. S., Fraser, M. D., Vale, J., Corton, J., Heinsoo, K., Melts, I., & Wachendorf, M. (2012). Mineral concentrations in solid fuels from European semi-natural grasslands after hydrothermal conditioning and subsequent mechanical dehydration. *Bioresource Technology*, 118, 332-342.
<https://doi.org/10.1016/j.biortech.2012.05.035>

Document License

CC BY

General rights

Copyright and moral rights for the publications made accessible in the Aberystwyth Research Portal (the Institutional Repository) are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the Aberystwyth Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the Aberystwyth Research Portal

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

tel: +44 1970 62 2400
email: is@aber.ac.uk

Appendix A: Table A.1: Detailed results of the eighteen European semi-natural grassland sites concerning yield and fuel quality, average value of two year data

Site ^a		NATURA 2000 habitat type	Yield [t DM ⁻¹ yr ⁻¹]	Silage [g kg ⁻¹ DM]				PC [g kg ⁻¹ DM]			
				N	S	Cl	K	N	S	Cl	K
DE	I	Lowland hay meadow (6510)	3.16	15.55	1.70	2.88	7.03	14.99	1.07	0.42	1.53
	II	Lowland hay meadow (6510)	2.93	17.42	1.85	1.95	6.47	14.29	1.07	0.35	138
	III	Mountain hay meadow (6520)	2.92	14.77	1.77	2.50	7.88	13.40	0.98	0.45	2.13
	IV	Species-rich Nardus grasslands (6230)	3.58	15.43	1.98	2.92	9.55	12.09	1.08	0.78	3.18
	V	Molinia meadow (6410)	4.35	15.12	1.73	6.35	12.65	12.29	1.08	0.90	3.07
	VI	Humid tall herb fringes of watercourses and woodlands (6431)	6.44	14.14	1.92	4.28	9.05	12.47	1.17	0.50	1.85
UK	I	Degraded raised bogs still capable of natural regeneration (7120)	3.49	12.74	1.53	7.93	9.27	8.99	0.93	1.22	2.08
	II	Degraded raised bogs still capable of natural regeneration (7120)	3.63	13.47	1.48	3.88	5.52	10.85	1.12	0.52	1.35
	III	Degraded raised bogs still capable of natural regeneration (7120)	4.84	13.20	1.47	4.30	5.50	10.33	1.05	0.60	1.17
	IV	European dry heaths (4030)	4.95	14.64	1.25	1.25	4.63	11.75	1.00	0.37	1.20
	V	Not classifiable	3.69	15.70	1.78	4.92	10.87	14.98	1.20	0.88	4.08
	VI	Blanket bogs (7130)	1.97	14.40	1.37	4.38	10.37	10.52	0.90	0.87	3.02
EE	I	Northern boreal alluvial meadows (6450)	3.10	15.13	1.41	5.02	16.90	12.90	0.96	0.97	4.57
	II	Fennoscandian lowland species-rich dry to mesic grasslands (6270)	3.39	15.03	1.32	2.23	10.24	11.14	0.91	0.54	2.82
	III	Fennoscandian wooded meadows (6530)	1.63	15.35	1.45	3.80	21.05	11.91	0.94	0.77	6.04
	IV	Northern boreal alluvial meadows (6450)	3.79	16.48	1.86	4.21	13.20	13.41	1.18	0.86	3.71
	V	Fennoscandian lowland species-rich dry to mesic grasslands (6270)	3.17	14.40	1.34	2.38	9.46	12.60	0.97	0.51	2.53
	VI	Fennoscandian wooded meadows (6530)	2.41	16.94	1.66	3.38	15.58	14.18	1.02	0.73	4.43