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Status of Biosoil soil data and soil solution data on D2 plots

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Biosoil soil data

**127 level II plots
from 21 countries**

N° IM1/D1/D2/D3 plots in BioSoil+ database at FSCC:

Country/Federal State	CC	IM1	D1	D2	D3
Italy	5	8	6	7	5
UK	6	2		2	
Ireland	7	3	3	3	
Denmark	8	3	2	3	3
Greece	9	2	1	1	1
Spain	11	13	13	13	7
Austria	14	2	2	2	2
Finland	15	16	16	16	16
Slovakia	54	7	2	2	2
Czech Republic	58	8	3	7	7
Slovenia	60	1			
Cyprus	66	4			
Belgium, Flemish region	201	5	5	5	5
Germany, Baden-Württemberg	401	2	2	2	2
Germany, Hessen	407	1	1	1	1
Germany, Lower-Saxony	409	1	1	1	1
	TOTAL	78	57	65	52
	FutMon Plots	244	126	151	111
		32%	45%	43%	47%

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Biosoil soil data

Data availability

- There is BioSoil Soil data on **43%** (65 of 151) of the D2 plots. On 34% of the D2 plots, a WRB soil classification and a profile description is available.
- On 51 plots with profile description, there is information on the texture (clay, silt, sand and textural class) on 47% of the described horizons. So on only 1/6 of the D2 plots, texture of the horizons is available. **Carbon** data is available for **75%** of the described horizons, pH on 85%.
- There are **54 D2 plots** with physico-chemical soil data according to fixed depths; reported replicates per plot and fixed depth range from 1 to 6



Biosoil soil data on D2 plots

Number of D2 plots with specific soil information according to fixed depths (total D2 = 54)

Soil variable	OL	OFH	OF	OH	M05	M51	M01	M12	M24	M48
Texture (sand,silt,clay)					9	9	23	34	50	34
Mean BD					12	12	19	28	23	22
Estimated BD					3	3	9	14	14	14
BD, either meas. or est					12	12	26	37	37	36
Mass Coarse fragments					26	26	6	30	30	14
Vol Coarse fragments					7	7	19	24	23	23
TOC & TN	32	42	11	9	24	30	30	54	53	37
Total Phosphor	41	42	11	9	23	30	30	50	49	33
AR extractable K	41	42	11	9	23	30	30	49	47	31
AR extractable Ca	41	42	10	8	23	30	30	49	47	31
AR extractable Mg	41	42	11	9	23	30	30	49	47	31
AR extractable S	37	32	8	7	13	28	28	31	31	15

Plots with soil solution data (submitted time series < 2006)

COUNTRY	ICPF-code	D2	D3
Austria	14	2	2
Belgium, Flemish region	2	5	5
Bulgaria	63	3	0
Czech Republic	58	10	10
Denmark	8	6	6
Estonia	59	1	0
Finland	15	16	16
France	1	5	0
Germany	4	36+4*	28+4
Greece	9	1	1
Ireland	7	3	0
Italy	5	5+2	0+5
Romania	52	4	4
Slovakia	54	1	1
Slovenia	60	2	2
United Kingdom	6	4	1
	TOTAL	110	85

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* 'restricted datasets'; x-r in vTi database

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Conclusions

- **BioSoil soil information is available for ~ 40 % of level II FutMon plots**
- **Data is far from complete and depends on the type of variables**
- **Bulk density measurements are scarce to calculate nutrient stocks**
- **Carbon, N, and aqua regia extractable macro-nutrients (P, S, K, Ca, Mg) are quite complete for the investigated 54 plots**
- **There are more D2 plots with available soil solution data (110 plots) than (solid) BioSoil data**
- **Soil solution database is present at vTi <-> BioSoil+ at FSCC**



Questions

- **Is more soil data available for D2 plots than the BioSoil dataset ?**
- **How can this soil information be compiled ? Who should do this and when ?**
- **Are some countries analysing now BioSoil variables on the remaining D2/D3 plots, as foreseen in FutMon ?**
- **What are the main soil and soil solution variables to focus on in the D2 action ?**

