

Table 2: description of the multiband tiffs of the current agricultural management **Current_EU.tif**.

ID/Layer	Description	Unit	Timeframe
1	Average mineral P input	[kg ha ⁻¹ year ⁻¹]	2010-2019
2	Average organic P input	[kg ha ⁻¹ year ⁻¹]	2010-2019
3	Change in labile phosphate pool (in resin extractable P)	[g m ⁻²]	1980-2019
4	Average Mineral P content for layer 1	[kg ha ⁻¹]	2010-2019
5	Average P export via grain harvest	[kg ha ⁻¹ year ⁻¹]	2010-2019
6	Average P export via crop residue removed during harvest	[kg ha ⁻¹ year ⁻¹]	2010-2019
7	Average P export via crop residue removed during most recent harvest event*	[kg ha ⁻¹ year ⁻¹]	2010-2019
8	Change in P parent material to determine the P entering the cycling P pools by weathering of parent material	[g m ⁻²]	2010-2019
9	Average P leached from the soil organic layer into stream flow	[kg ha ⁻¹ year ⁻¹]	2010-2019
10	Change in secondary mineral P pool	[g m ⁻²]	2010-2019
11	Organic P pool at the beginning of the simulation	[g m ⁻²]	1980
12	Average labile phosphate pool (in resin extractable P)	[g m ⁻²]	2010-2019
13	Average soil C lost by soil erosion	[t ha ⁻¹ year ⁻¹]	2010-2019
14	Average soil organic carbon pool	[g m ⁻²]	2010-2019
15	Average total P pool	[g m ⁻²]	2010-2019
16	Labile phosphate pool (in resin extractable P)	[kg ha ⁻¹]	2010
17	Labile phosphate pool (in resin extractable P)	[kg ha ⁻¹]	2019
18	Total P pool	[kg ha ⁻¹]	2010
19	Total P pool	[kg ha ⁻¹]	2019
20	indicator of the limiting element (1 = N, 2 = P, 3 = S)	[g m ²] year ⁻¹	1980
21	indicator of the limiting element (1 = N, 2 = P, 3 = S)	[kg ha ⁻¹ year ⁻¹]	1990
22	indicator of the limiting element (1 = N, 2 = P, 3 = S)	[kg ha ⁻¹ year ⁻¹]	2000
23	indicator of the limiting element (1 = N, 2 = P, 3 = S)	[kg ha ⁻¹ year ⁻¹]	2010
24	indicator of the limiting element (1 = N, 2 = P, 3 = S)	[kg ha ⁻¹ year ⁻¹]	2020

25	indicator of the limiting element (1 = N, 2 = P, 3 = S)	[kg ha ⁻¹ year ⁻¹]	2030
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