

animal Journal Supplementary Material

Roles of instrumented farm-scale trials in trade-off assessments of pasture-based ruminant production systems

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Supplementary Material (five pages)

Table S1 Inter-farmlet differences in economic, environmental and ecological variables

Figure S1 Economic, environmental and ecological variables (original data)

Figure S2 Scatterplot matrix between economic, environmental and ecological variables

Table S1. Inter-farmlet differences in economic, environmental and ecological variables

Farmlet		Green ¹	Blue ¹	Red ¹	P-value ²
<i>Environmental/ecological indicators</i>					
SOC	t ha ⁻¹	45.4 ^a	39.4 ^a	40.5 ^a	0.468
SOC heterogeneity	t ha ⁻¹	5.52 ^a	6.04 ^a	3.88 ^a	0.218
Botanical β -diversity	index	0.122 ^a	0.136 ^a	0.133 ^a	0.360
Water discharge	kl ha ⁻¹	4937 ^a	4823 ^a	5794 ^a	0.432
TIN discharge	kg N ha ⁻¹	2.21 ^a	2.97 ^a	4.84 ^a	0.087
Sediment discharge	kg ha ⁻¹	182 ^a	228 ^a	220 ^a	0.584
<i>Managerial decisions</i>					
Cumulative weight (cattle)	1000 t day ha ⁻¹	53.2 ^a	55.9 ^a	67.7 ^a	0.979
Cumulative weight (sheep)	1000 t day ha ⁻¹	149.7 ^a	108.9 ^a	102.0 ^a	0.828
Cumulative weight	1000 t day ha ⁻¹	202.9 ^a	164.9 ^a	169.7 ^a	0.851
<i>Economic performance</i>					
Silage production	kg ha ⁻¹	4881 ^a	5558 ^a	5574 ^a	0.924
Liveweight gain (cattle)	kg ha ⁻¹	127 ^a	163 ^a	177 ^a	0.914
Liveweight gain (sheep)	kg ha ⁻¹	322 ^a	330 ^a	302 ^a	0.990
Liveweight gain	kg ha ⁻¹	449 ^a	494 ^a	479 ^a	0.938

¹ Different letters denote significant ($p < 0.05$) differences based on the pairwise t -tests. In the present case, no pairwise difference was detected across all variables. Green: Green farmlet. Blue: Blue farmlet. Red: Red farmlet.

² Based on the multi-group F -tests.

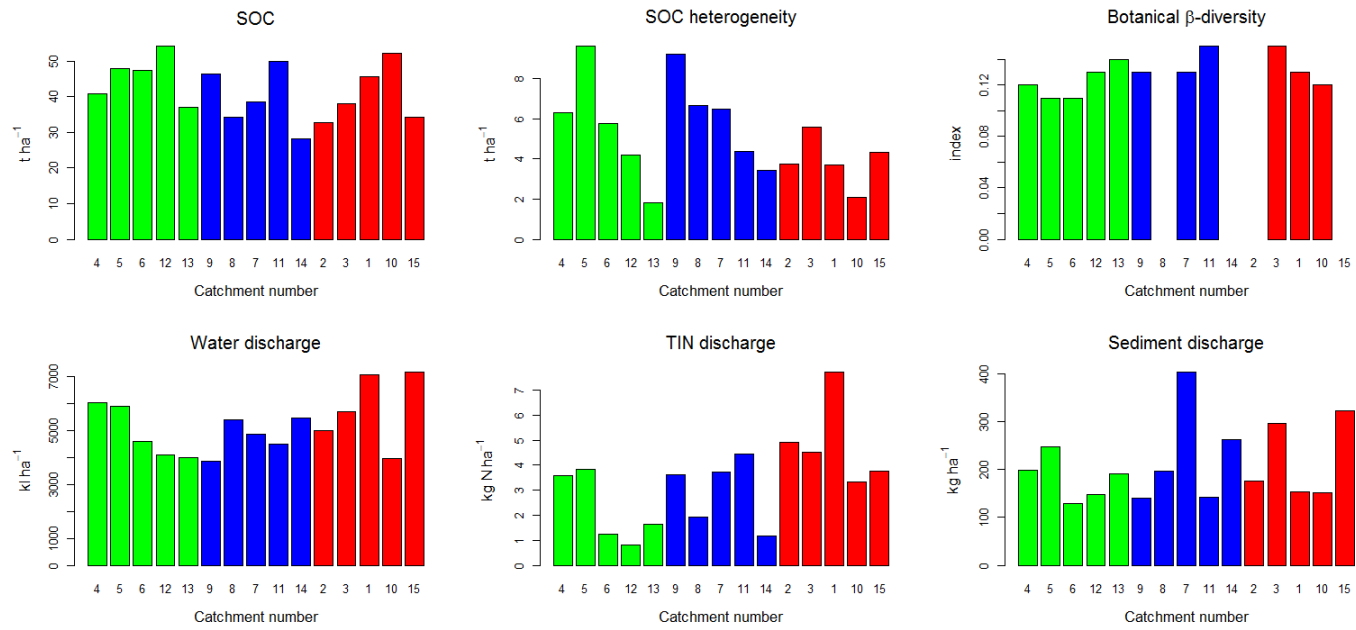


Figure S1. Economic, environmental and ecological variables (original data) (part 1 of 2)

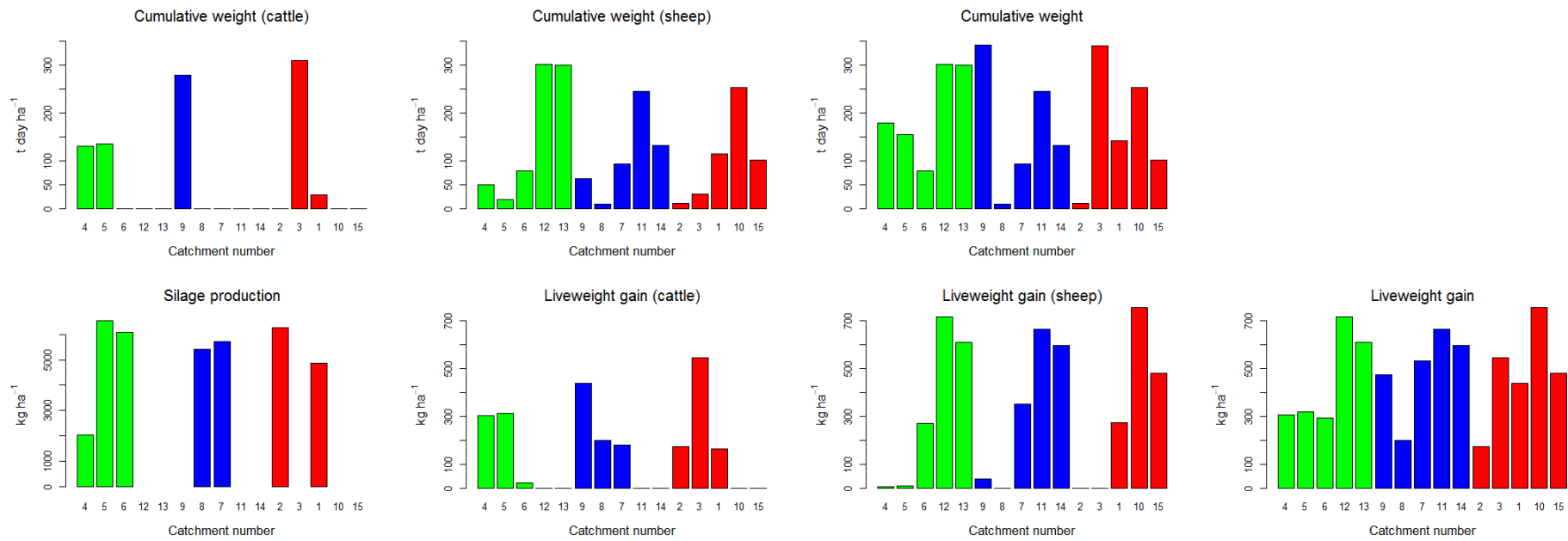


Figure S1. Economic, environmental and ecological variables (original data) (part 2 of 2)

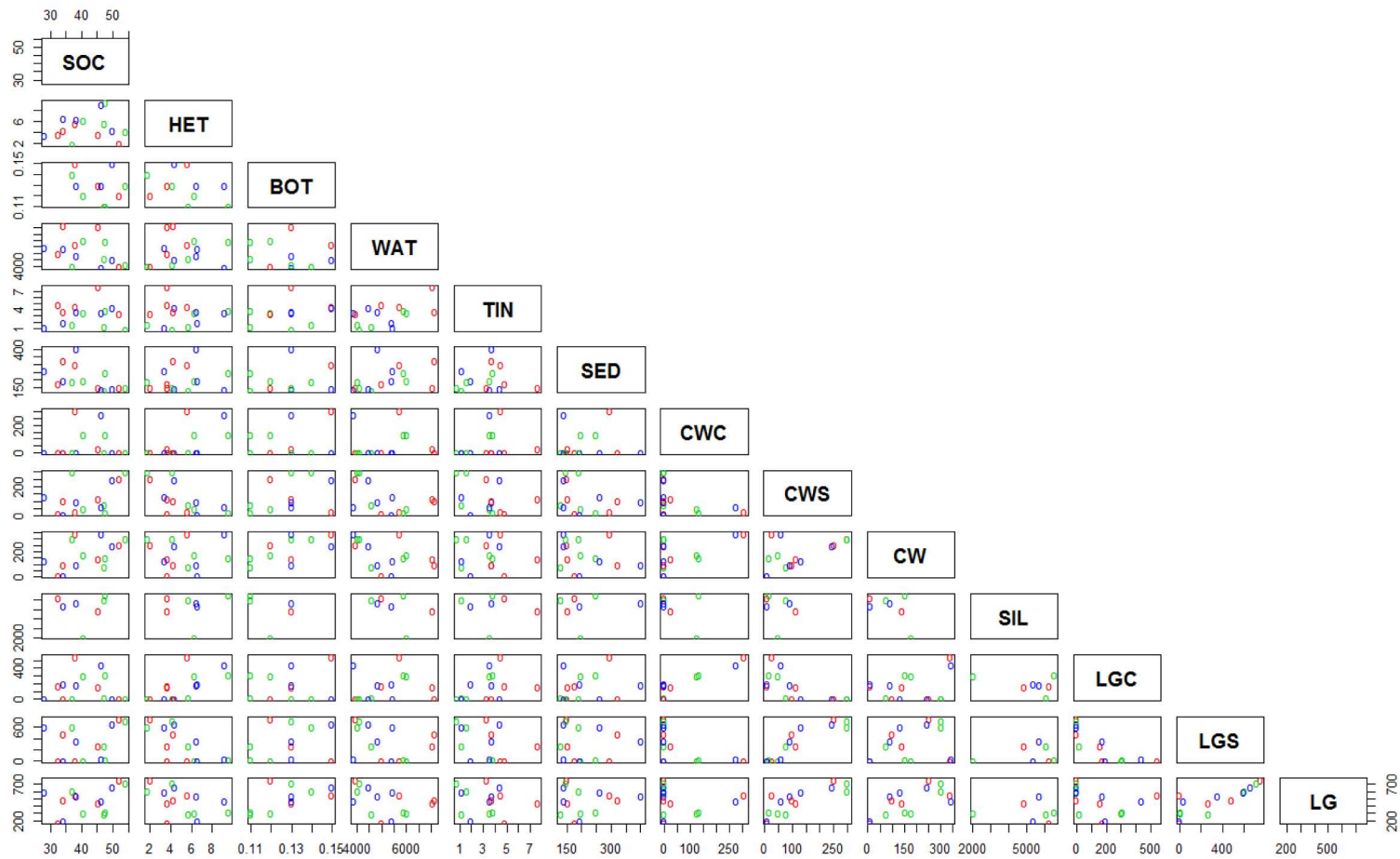


Figure S2. Scatterplot matrix between economic, environmental and ecological variables representing 15 subcatchments across three farmlets. SOC: Soil organic carbon. HET: SOC heterogeneity. BOT: Botanical β -diversity. WAT: Water discharge. TIN: TIN discharge. SED: Sediment discharge. CWC: Cumulative weight (cattle). CWS: Cumulative weight (sheep). CW: Cumulative weight. SIL: Silage production. LWC: Liveweight gain (cattle). LWS: Liveweight gain (sheep). LG: Liveweight gain. All variables are defined in Table 1.