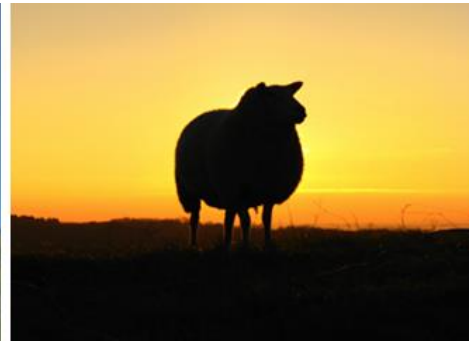


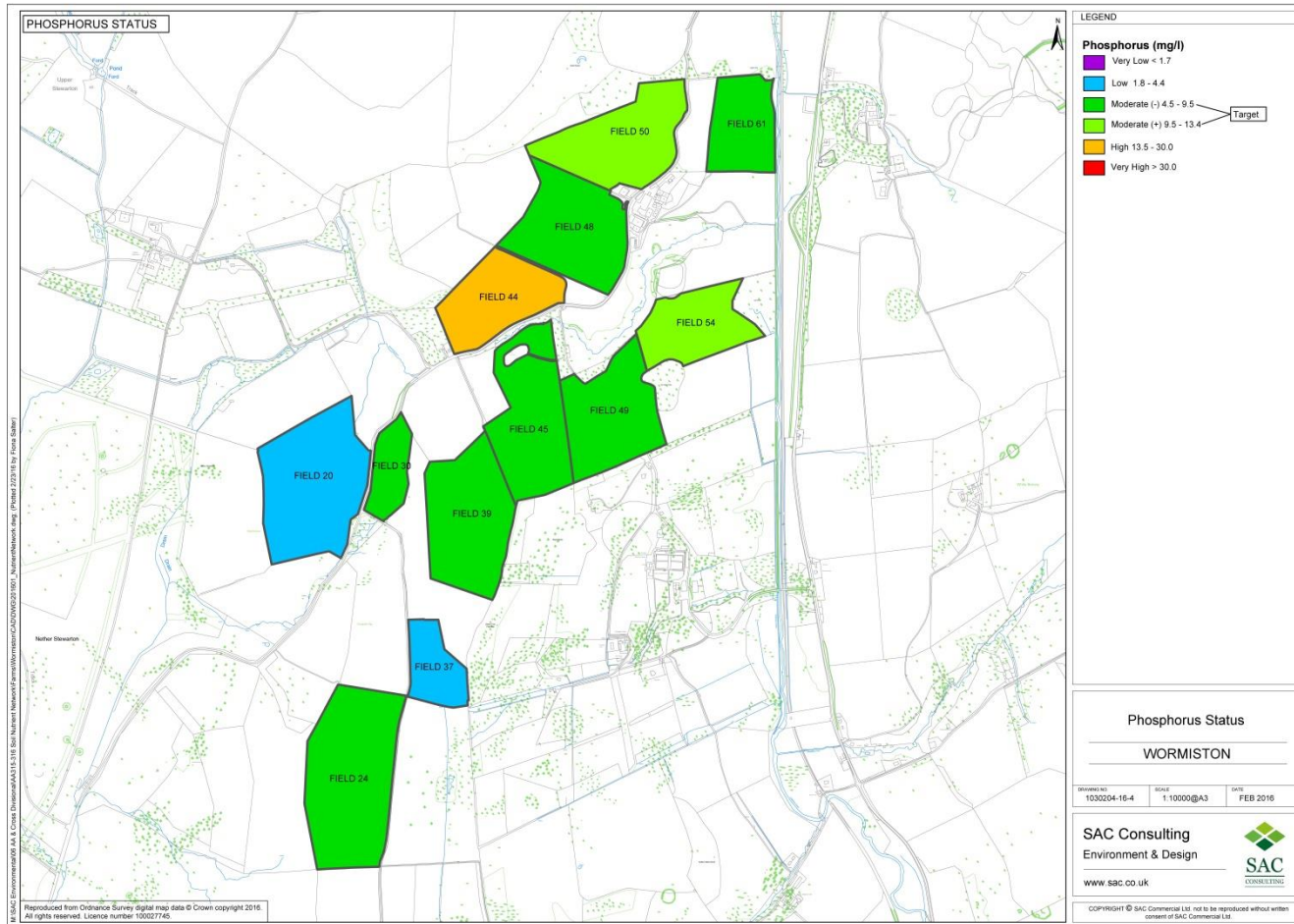
Peeblesshire Soil Nutrient Network Farm



Phosphate Map



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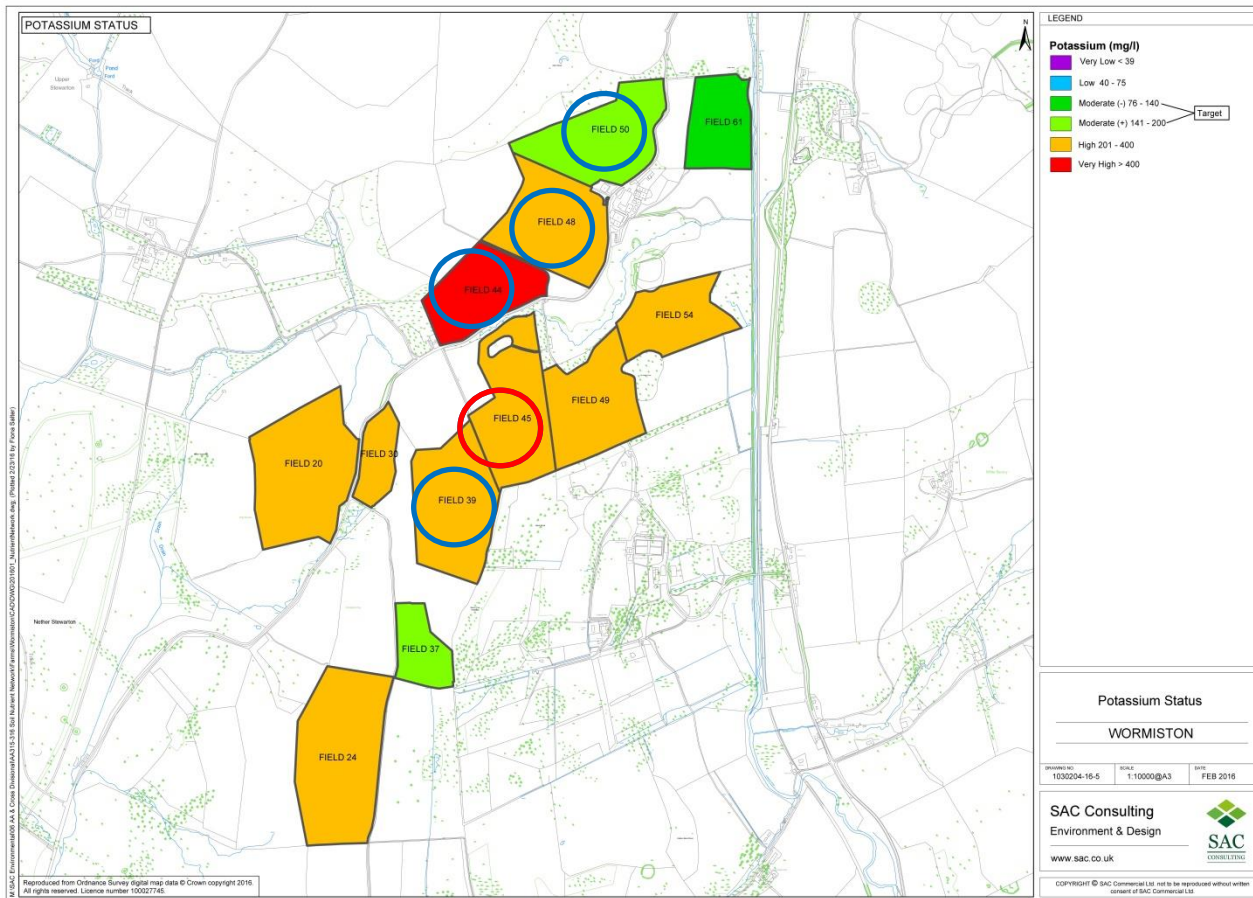


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Potash map



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Organic manure analysis

Source	DM %	Total N kg/t	Total P ₂ O ₅ kg/t	Total K ₂ O kg/t	Total SO ₃ kg/t
Typical FYM TN 650	25	6	3.2	8	2.4
Wormiston	21.8	11.0	3.7	10.9	2.41

Source	DM %	Total N kg/t	Total P ₂ O ₅ kg/t	Total K ₂ O kg/t	Total SO ₃ kg/t
Typical Cattle Slurry TN 650	6	2.6	1.2	3.2	0.7
Wormiston Slats	8.79	4.7	1.99	6.15	1.32
Wormiston Midden	9.06	2.01	1.21	3.35	0.69

Field 45 2016 Fertiliser

1 st Cut (24t/ha)	Crop Recommendation Kg/ha	Slurry @ 24m ³ /ha Kg/ha	Crop Need Kg/ha	Applied 556kg/ha 24:4:14 Kg/ha
N	120	16	105	133
P ₂ O ₅ (M-)	41	48	0	22
K ₂ O (H) (144*0.5)	72	146	0	78
2 nd Cut (21t/ha)	Crop Recommendation Kg/ha	Slurry @ 30m ³ /ha Kg/ha	Crop Need Kg/ha	Applied 309kg/ha 34.4N Kg/ha
N	90	26	64	107
P ₂ O ₅ (M-)	36	60	0	0
K ₂ O (H) (126*0.5)	63	183	0	0

- P balance of 53kg/ha over 1 harvest year
- K balance of 137 kg/ha over 1 harvest year

Field 45 2017 Fertiliser

1 st Cut (23t/ha)	Crop Recommendation Kg/ha	Hen Pen @ 5t/ha Kg/ha	Crop Need Kg/ha	Applied 346kg/ha 34N Kg/ha
N	120	18	103	119
P ₂ O ₅ (M-)	39	70	0	0
K ₂ O (H) (138 * 0.5)	69	80	0	0

2 nd Cut (20 t/ha)	Crop Recommendation	Slurry @ 17m ³ /ha	Crop Need	Applied 309kg/ha 34N
N	90	30	60	106
P ₂ O ₅ (M-)	34	34	0	0
K ₂ O (H) (120 * 0.5)	60	104	0	0

- P balance of 84 kg/ha over 2 harvest years
- K balance of 63 kg/ha over 2 harvest years

Cost benefit on field 45



- 2016 £1948
- 2017 £1188
- Saving £760
- £75.40/ha

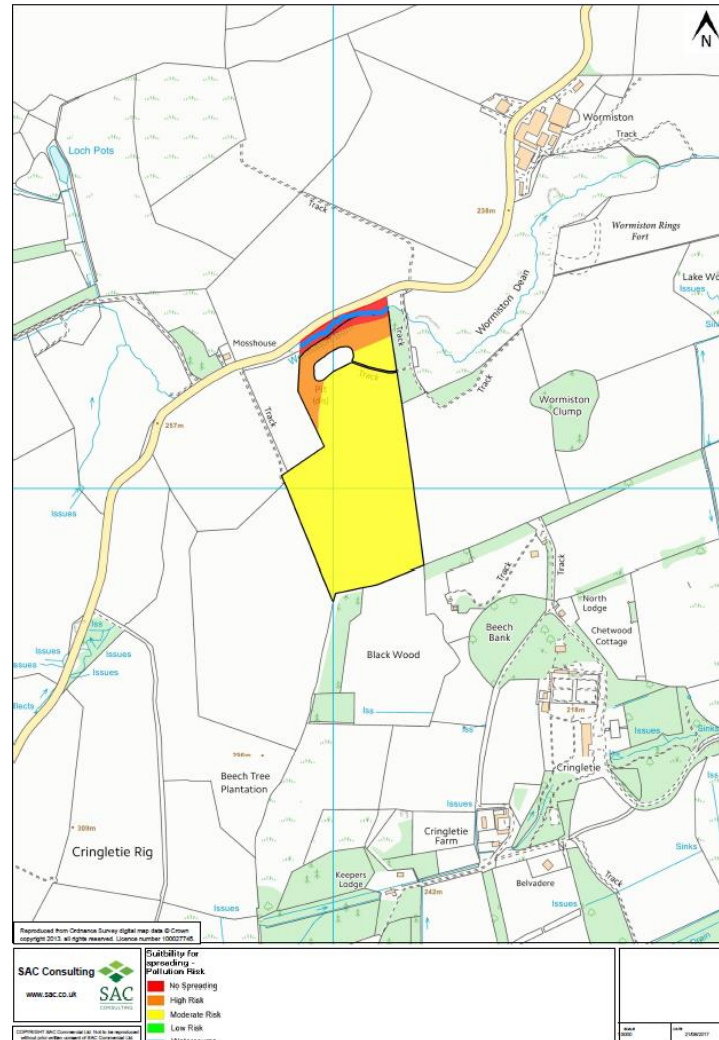
Cost benefit on 12 fields

	Manufactured fertiliser	Organic Manures	Cost	Saving
2016	53.62t Straight N & Compounds	1780t	£15636	
2017	37.75t Straight N	2029t	£10587	£5049

RAMS Map



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Take home messages



- To get best understanding of nutrients, analyse organic manures, soils and silage
- Don't underestimate potash offtake in silage
- Measure crop offtake and applications of organic manures to make nutrient budgeting as accurate as possible
- Take into account RAMS maps when spreading organic manures