

Årentuna prästgård, SE

Organic farming since 2011

Association: KRAV



Incorporating fertiliser into winter wheat



Mats Wennberg

Yield enhancing strategy, what makes the farm special?

Using system Cameleon which make possible to handle fertilisation from slaughterhouse (pellets).

Optimisation wishes and questions:

Winter wheat protein 11.5-12% for bread.

Farm: Organic crop cultivation on about 185 ha, total area 475 ha, 120 milking cows, 20 horses

Soils: Productive, light to stiff clay

Rainfall and temperatures

2003-2025	J	F	M	A	M	J	J	A	S	O	N	D	Year
Rainfall (mm)	36	26	23	24	40	57	49	72	47	55	47	37	513
Temp. (C°)	-2.5	-2.3	0.6	5.5	11.1	15.6	18.0	16.6	12.4	6.8	2.7	-0.5	7.0

Crops, yields and fertilisation, 2019-2024 [t/ha]

Crop rotation plan	2019	2020	2021	2022	2023	2024	Mean
W-Wheat	-	4.5	5.0	5.0	4.9	3.9	4.7
Bean	-	2.9	2.5	3.3	1.4	4.0	2.8
S-Barley	-	3.3	2.8	3.2	1.3	3.8	2.9
Clover/grass	-	-	5.5 harvest 3x	6.6 harvest 3x	6.3 harvest 3x	6.8 harvest 3x	18.4

Clover/grass had 32% DM and grains: 86% DM. Cow slurry was applied at 25 t/ha to sown winter wheat (50 kg/ha N). In addition, pelleted malt meal was applied to winter wheat at 0.9 t/ha during the growing season (30 kg/ha N) and at 0.55 t/ha (Biofer 10:3:1) at the grain-filling stage (55 kg/ha N). All Biofer is distributed with Cameleon, 5 cm down in the soil. Cattle slurry (kg/m³ FM): 4.2 N, 2.1 NH₄-N, 0.5 P, 3.8 K; Pelleted malt meal / malt culms pellets (kg/t FM): 35 N, 0 NH₄-N, 5.5–6.8 P, 13–16 K

Photos: © M Wennberg

Machinery

Tractors

	Power HP
Massey Ferguson 308	308
New Holland T6	175
New Holland 5060 Telescopic wheel loader	

Cultivation

	Working width (m)
Kremelan plough 2x6	2.7
Carrier, disc harrow	4.2
Willrich, cultivator with goosefoot steps	4.8
Harrow Vädestad E, seedbed cultivation	8.2
Doublex Rekord, weed harrow with seeder	12
Seeddrill system Cameleon	8
Weedcontrol Cameleon goosefoot sweeps + camera	8
Combcut - Tistel knife	8
Field roller	8

Harvest

Lexion 510 – combine harvester	6
Two trailers - 18m ³ each	
Self-loading forage wagon – 30m ³	

Fertilisation

Cameleon with camera	8
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Machines in cooperation

Manuera - slurry manure spreader	8
Mower conditioner	6
Baler	

Swedish University of Agricultural Sciences, Årentuna prästgård, 04/2026