



Focus on weed control in high value crops like sugar beet

Duesminde, DK

Organic farming since 2017
certified acc. (EU) 2018/848



Yield enhancing strategy, what makes the farm special?

Focus on high value crops like grass seed, sugar beet, quinoa a.o. Cutting edge technology through cooperation in Agro Trio (1200 ha, mainly conventional)

Optimisation wishes and questions:

Weed control, perennial and annual, is the main challenge. Nutrient supply is improved after establishing of egg production. (2022)

Morten Helsted and Ditte Malling Helsted

Farm: Aprox. 185 ha lands for arable production. 36.000 egg laying hens

Soils: Loamy clay. No irrigation

Optimized output on high yielding soils.

Rainfall and temperatures

1991-2020	J	F	M	A	M	J	J	A	S	O	N	D	Year
Rainfall [mm]	48	35	39	42	44	51	67	60	56	49	63	53	607
Max temperatures °C	2	2	5	9	14	18	19	20	17	13	8	4	11
Min temperatures °C	-1	-1	0	3	8	12	13	13	11	8	4	0	6

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

Selected fields	2019	2020	2021	2022	2023	2024
Nr 2-0. 31 ha – Crop		Green Pea	W-Rye	S-Oat Black	Sugar Beet	W-Wheat
– Yield		13.300	8.100	4.000	65.000	4.700
– Tot-N		0	207	154	148	183
Nr 4-0. 13.5 ha – Crop		Sugar Beet	W-Rye	Green Pea	W-Wheat	S-Oat
– Yield		65.000	4.000	13.300	6.500	3.500
– Tot-N		115	138	0	168	94
Nr 13-0. 20 ha – Crop		Faba Bean	Fescue seed	Fescue seed	Fescue seed	Barley/pea
– Yield		4.300	1.400	1.400	1.400	3.500
– Tot-N		0	232	170	351	0

Grains: 86% DM, N-total input organic manure, slurry and Biofer (10:3:1), no perennial clover grass in rotation, increased use cover crops

Photos: Sven Hermansen

Machinery

Tractors

John Deere 7350R
John Deere 6250R
John Deere 6175R

Power HP

350 HP
250 HP
175 HP

Self-propelled machines

Farmdroid 20 (Seed and weed robot in sugar beet)

3 m

Cultivation

Lemken Solitare Rotor
Kongskilde Fonterra front packer
Kverneland 3600 S plow
Kverneland EG
Germinator pro seed bed harrow
Wäderstadt 2A harrow
Horch Terranum
Treffler tine harrow + Air seeder
Dalbo Cambridge roller

Working width (m)

6 m
6 furrows
5 furrows
8 m
10 m
6 m
12 m
12 m

Harvest

New Holland CR 9.90

41'