



*grønn*  
gjødsel

# HYBRIDGJØDSEL

for konvensjonell dyrking

*"Gjødselen som bygger  
BÅDE planter og jord!"*

Hybrid N (20-4-8)

Hybrid K (11-5-17)

Maks gjødseleffekt i en og samme gjødsel

Mineraldelen = hurtigvirkende

Organisk del = langtidsvirkende

**NYHET!**

Hybridgjødsel med mindre fosfor

Hybrid N (22-1-10 + 5S)

[www.gronngjodsel.no](http://www.gronngjodsel.no)



# ORGANISK GJØDSEL

KAN BRUKES VED ØKOLOGISK DYR KING



Grønn 8K (8-3-5)

Grønn 11 (11-3-2)

Grønn 14 (14-2-1)

[www.gronngjodsel.no](http://www.gronngjodsel.no)

**NYHET!**

Fosforfattig organisk gjødsel

Grønn 10 (10-1,8-5 + 3S)

Grønn 11 (11-1,5-5 +3S)



Knowledge grows

## Results from Nordic cooperation trials in Kotkaniemi 2025

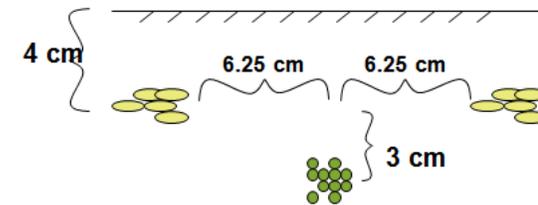
Last updates 8.10.2025



# Trial protocol

## Proposed trial treatments:

1. Unfertilized
2. 90 kg N/ha YaraSuna BIO PLUS (10-3-1)
3. 90 kg N/ha Rakkestad (9-3-1)
4. 90 kg N/ha Hybrid N (20-4-8)
5. 90 kg N/ha YaraSuna REMIX (14-2-3)
6. 90 kg N/ha YaraMila Y3 (23-3-8)



Combidrill

# Two locations, two different type of fields

## Rather poor P, fair K, high soil organic content (Fe-701-1-25)

### Soil properties:

- Humous (C X %): Loamy Clay 9,1 very humous
- Yield pot. est. (t/ha): 8.0 t/ha
- P (AMAC1) mg/l: 3,1 fair
- P (storage) mg/l: 160
- Ca (AMAC1) mg/l: 2300 satisfactory
- K (AMAC1) mg/l: 160 fair
- Mg (AMAC1) mg/l: 210 satisfactory
- S, mg/l: 13 satisfactory
- pH: 5,9 satisfactory

### Soil classification system:

1=poor, 2=rather poor, 3=fair, 4=satisfactory,  
5=good, 6=high, 7=excessive

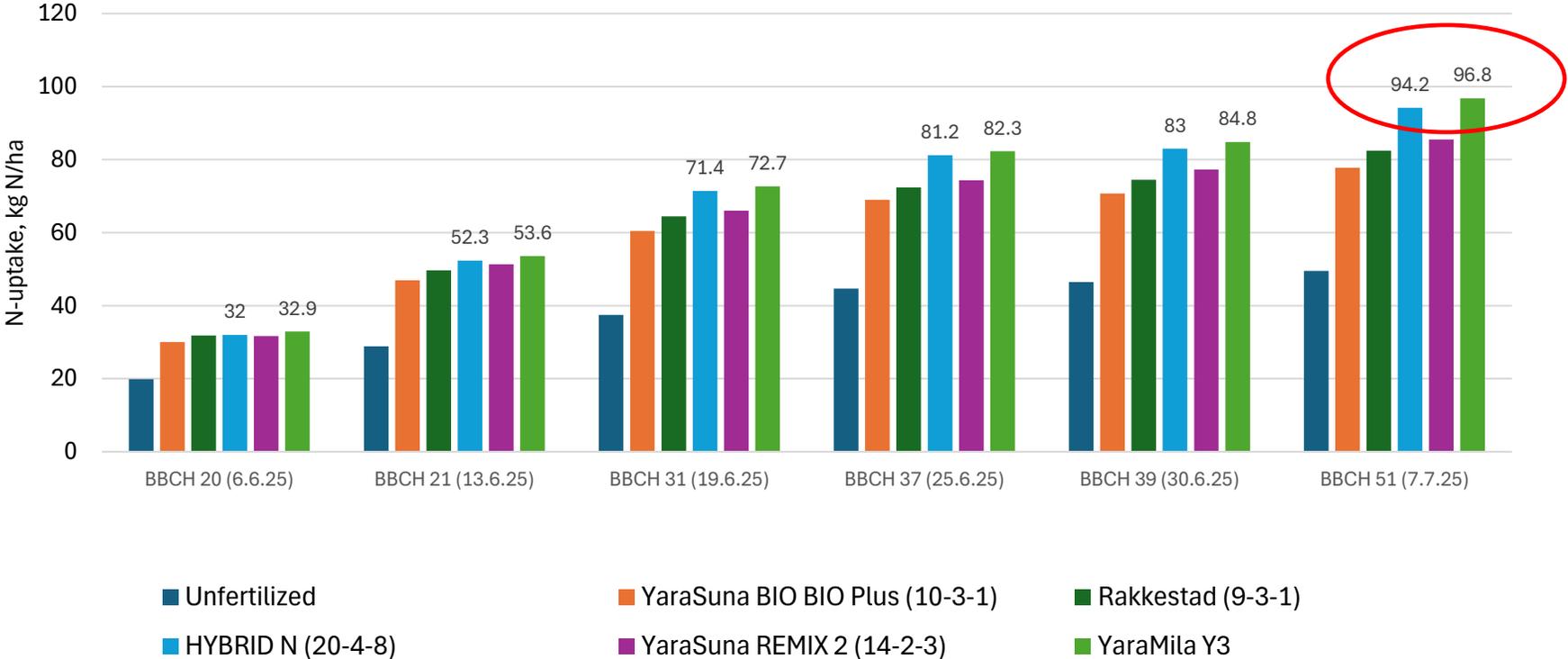
## Good P and satisfactory K, 'normal' soil organic content (Fe-700-1-25)

### Soil properties:

- fine sandy till 5,3% humous
- Yield pot. est. (t/ha): 8.0
- P (AMAC1) mg/l: 14 good
- P (storage) mg/l:
- Ca (AMAC1) mg/l: 2400 satisfactory
- K (AMAC1) mg/l: 120 fair
- Mg (AMAC1) mg/l: 290 satisfactory
- S, mg/l: 5 fair
- pH: 6,1 Satisfactory



# Monitoring of N-uptake (kg/ha) Fe-700-1-25



# Yield and quality results (Fe-700-1-25)

Tr. no	Treatment	Yield, kg/ha	Protein, %	HLW, kg	NUE, %	NUE, % With ON	Stacon, %	Tkw, g	Ears, no/m2	Height, cm
1.	Unfertilized	5015 d (100 %)	9.4 c (100 %)	77.8 b			69.3 a		619	66 c
2.	90 kg N/ha YaraSuna BIO PLUS (10-3-1)	6880 c (137 %)	10.1 b (108 %)	78.6 a	116	50	69.1 ab		625	77 b
3.	90 kg N/ha Rakkestad (9-3-1)	6986 bc (139 %)	10.2 b (108 %)	78.6 a	119	54	69.1 ab		605	78 b
4.	90 kg N/ha HYBRID N (20-4-8)	7669 a (153 %)	10.7 ab (114 %)	78.7 a	138	74	68.7 bc		623	82 a
5.	90 kg N/ha YaraSuna REMIX 2 (14-2-3)	7286 b (145 %)	10.4 ab (111 %)	78.8 a	127	62	68.9 abc		649	78 b
6.	90 kg N/ha YaraMila Y 3 (23-3-8)	7865 a (157 %)	10.8 a (116 %)	78.9 a	142	79	68.6 c		659	80 ab
	LSD P=.05	332.3	0.43	0.47			0.36			2.6

# Impact of fertilization on biomass accumulation

## Fe-700-1-25

Tr. no	Fe-700-1-25	Yield, kg/ha	Biomass, g BBCH 31	Biomass, g BBCH 37			
1.	Unfertilized	5015 d	1338 b	1808 b			
2.	90 kg N/ha YaraSuna BIO PLUS (10-3-1)	6880 c	1850 a	2886 a			
3.	90 kg N/ha Rakkestad (9-3-1)	6986 bc	1867 a	3016 a			
4.	90 kg N/ha HYBRID N (20-4-8)	7669 a	1724 a	3084 a			
5.	90 kg N/ha YaraSuna REMIX 2 (14-2-3)	7286 b	2016 a	2858 a			
6.	90 kg N/ha YaraMila Y 3 (23-3-8)	7865 a	2030 a	3208 a			



Knowledge grows

# Nutrient plant availability in mineral and OMF -products in spring wheat 2025

(Fe-701-1-25)

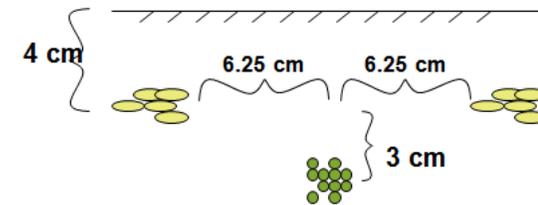
Yara Kotkaniemi 2025



# Trial protocol

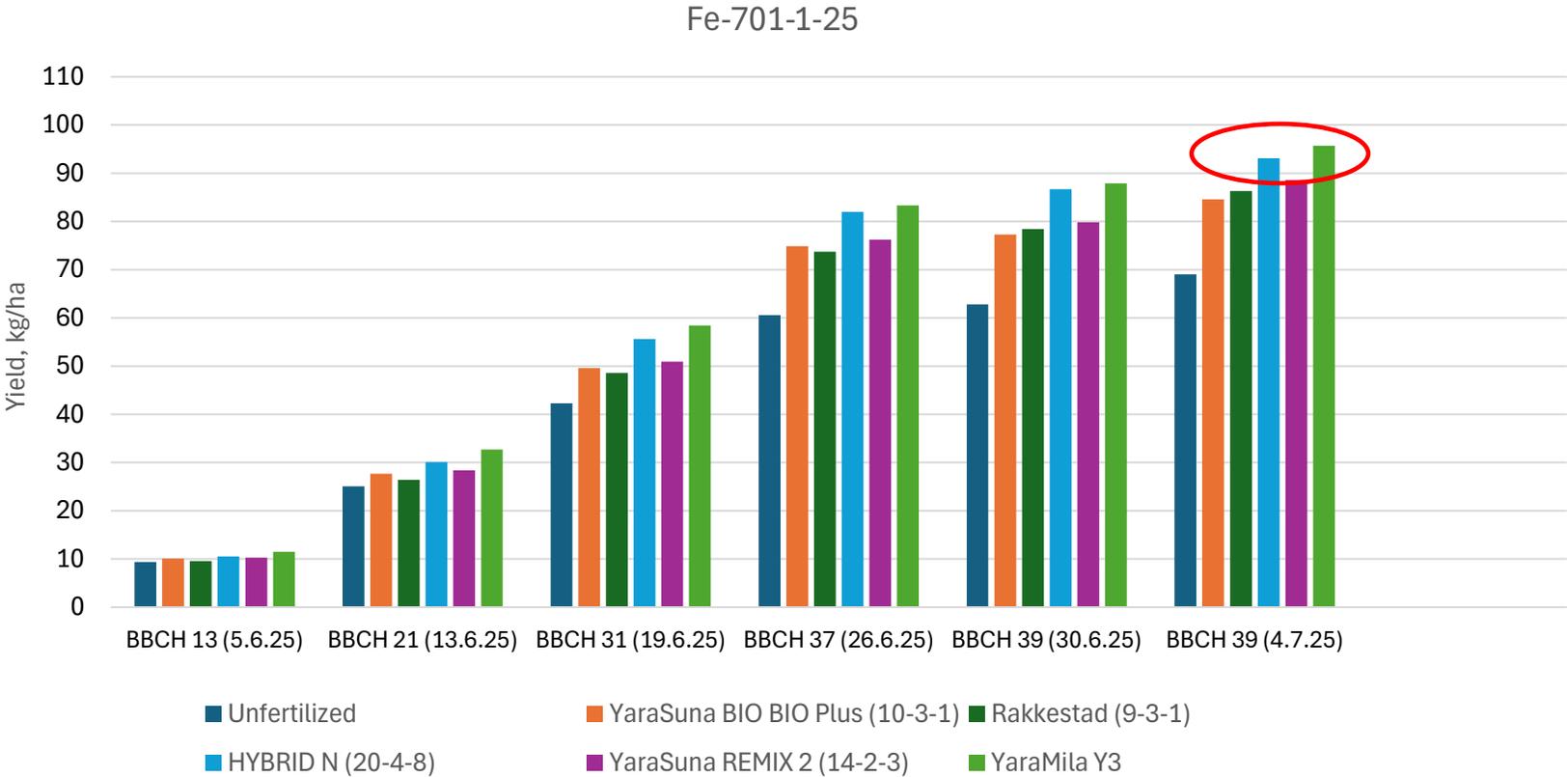
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4. 90 kg N/ha HYBRID N (20-4-8)
5. 90 kg N/ha YaraSuna REMIX (14-2-3)
6. 90 kg N/ha YaraMila Y3 (23-3-8)



Combidrill

# Measuring of N-uptake (kg/ha) Fe-701-1-25



# Yield and quality results (Fe-701-1-25)

**Rather poor P, fair K, high soil organic content (Fe-701-1-25)**

Soil properties:

- Humous (C 9.8 %): very humous
- Yield pot. est. (t/ha): 8.0
- P (AMAC) mg/l: rather poor
- Ca (AMAC) mg/l: satisfactory/good
- K (AMAC) mg/l: fair
- Mg (AMAC) mg/l: satisfactory
- S, mg/l: good
- pH: 6.3

Tr. no	Treatment	Yield, kg/ha	Protein, %	NUE, %	NUE, % With ON	HLW, kg	Stacon, %	Tkw, g	Ears, no/m2	Height, cm
1.	Unfertilized	6596 c (100 %)	12.1 b (100 %)	-	-	74.9 a	66.6 a		683 a	74 a
2.	90 kg N/ha YaraSuna BIO PLUS (10-3-1)	7747 b (117 %)	12.5 a (104 %)	162	47	74.5 ab	66.1 b		683 a	83 a
3.	90 kg N/ha Rakkestad (9-3-1)	7986 b (121%)	12.7 a (105 %)	170	55	74.4 ab	65.9 b		652 a	83 a
4.	90 kg N/ha HYBRID N (20-4-8)	8604 a (130 %)	12.7 a (105 %)	183	70	73.6 b	66.0 b		690 a	84 a
5.	90 kg N/ha YaraSuna REMIX 2 (14-2-3)	8096 b (123 %)	12.6 a (99 %)	171	56	74.3 ab	66.0 b		672 a	83 a
6.	90 kg N/ha YaraMila Y 3 (23-3-8)	8849 a (134 %)	12.8 a (99 %)	190	77	74.3 ab	65.9 b		665 a	84 a

# Impact of fertilization on biomass accumulation

## Fe-701-1-25

Tr. no	Fe-700-1-25	Yield, kg/ha	Biomass, kg/ha BBCH 31	Biomass, kg/ha BBCH 37			
1.	Unfertilized	6596 c	896 b	1836 b			
2.	90 kg N/ha YaraSuna BIO PLUS (10-3-1)	7747 b	926 b	2002 ab			
3.	90 kg N/ha Rakkestad (9-3-1)	7986 b	964 b	2044 ab			
4.	90 kg N/ha HYBRID N (20-4-8)	8604 a	1024 b	2362 a			
5.	90 kg N/ha YaraSuna REMIX 2 (14-2-3)	8096 b	982 b	1990 ab			
6.	90 kg N/ha YaraMila Y 3 (23-3-8)	8849 a	1312 b	2104 ab			