

Innovation Centre
for Organic Farming

Organic oat production in Denmark

Workshop: Oat drink

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Innovation Centre for Organic Farming
Aarhus, Skejby the 30th November 2022



STØTTET AF

Promilleafgiftsfonden for landbrug

Oat: organic production and the value for human consumption

Agenda

Oat as an organic crop in Denmark

National Field Trails®

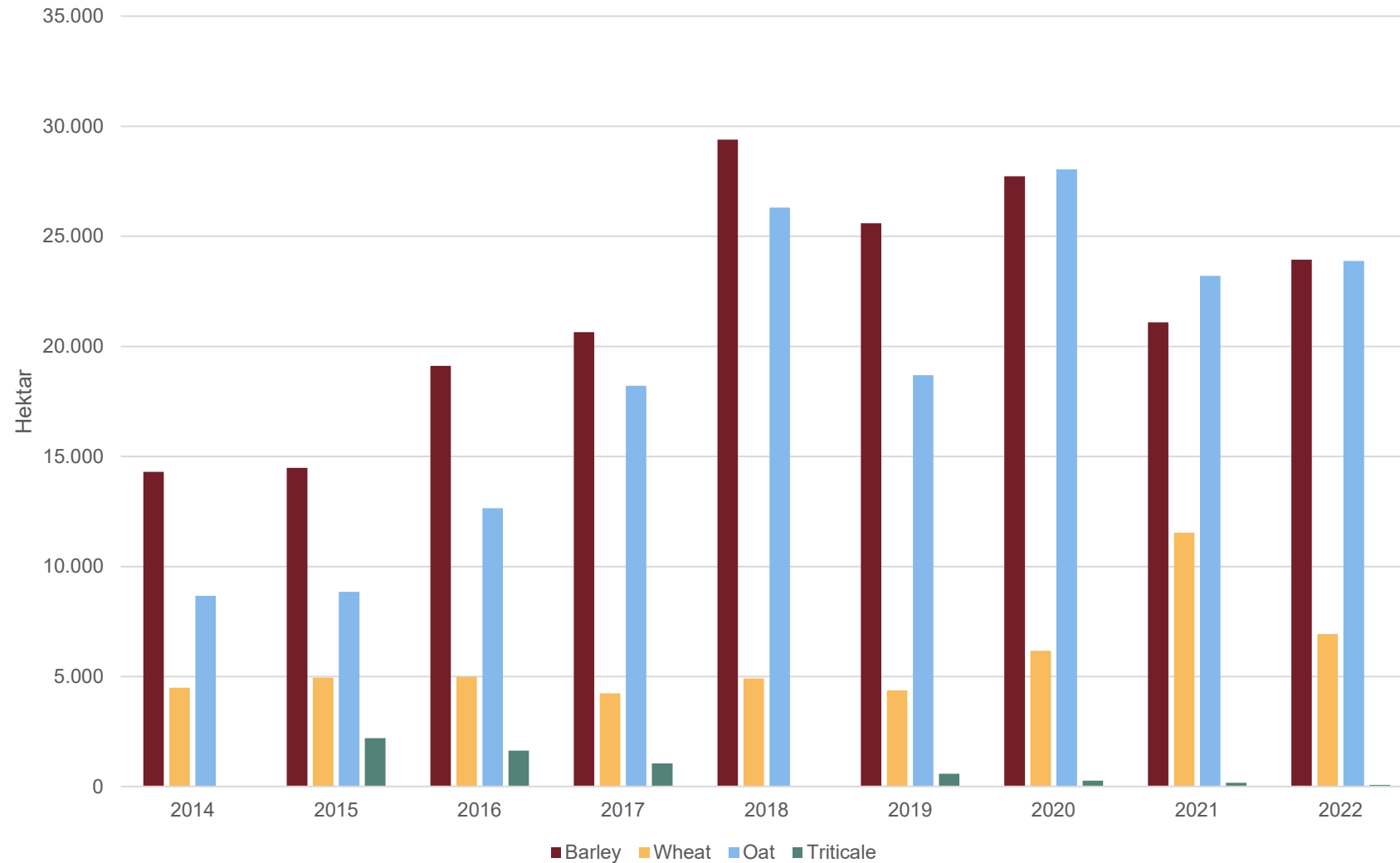
- Varieties: hectoliter weight, content of hulls, crude fat, sugar and amino acids
- Influence of sowing date and sowing rate

Oat for human consumption – health issues

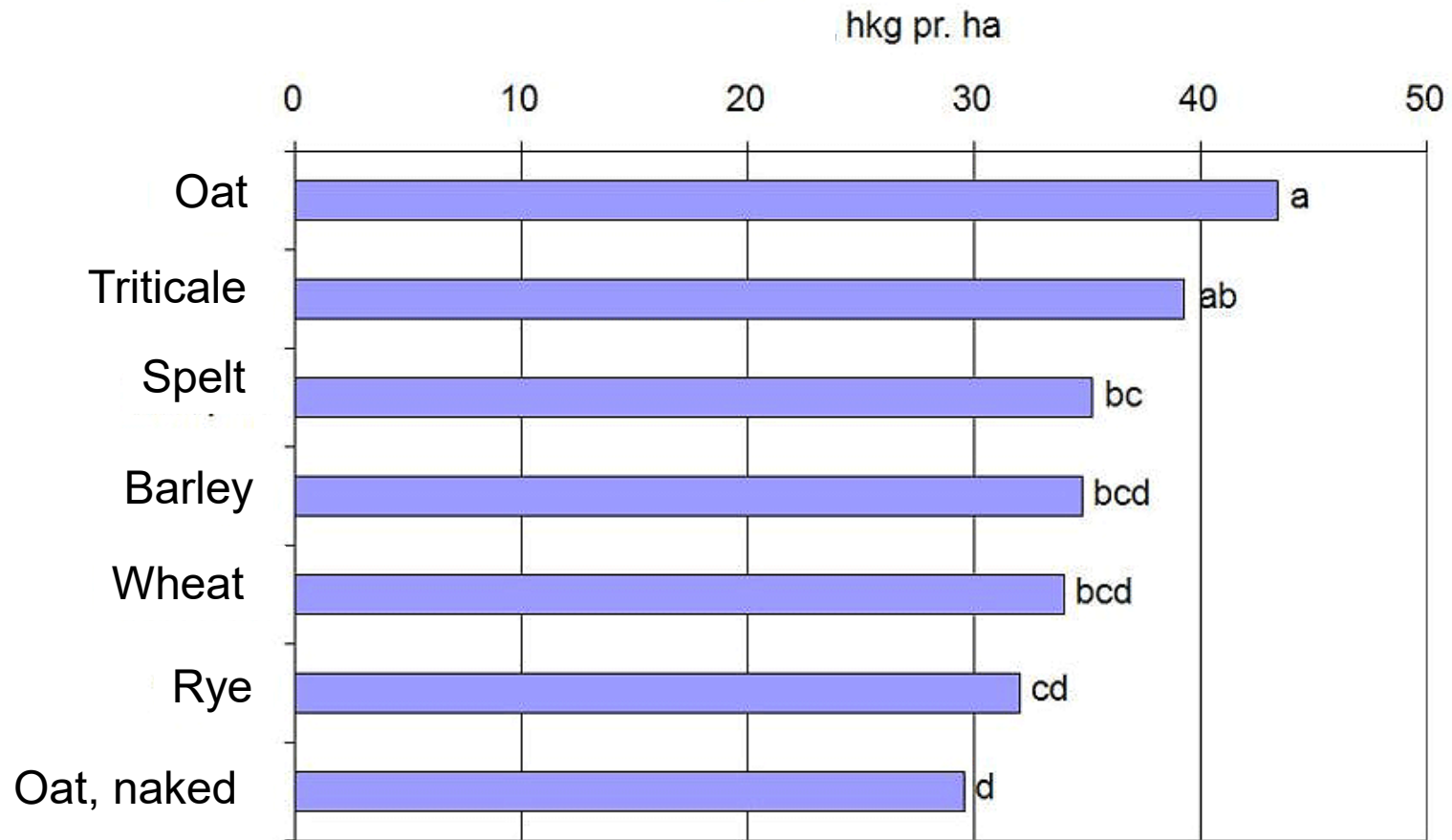


Photo: Tove M. Pedersen, ICOEL

Area with organic spring cereals, DK

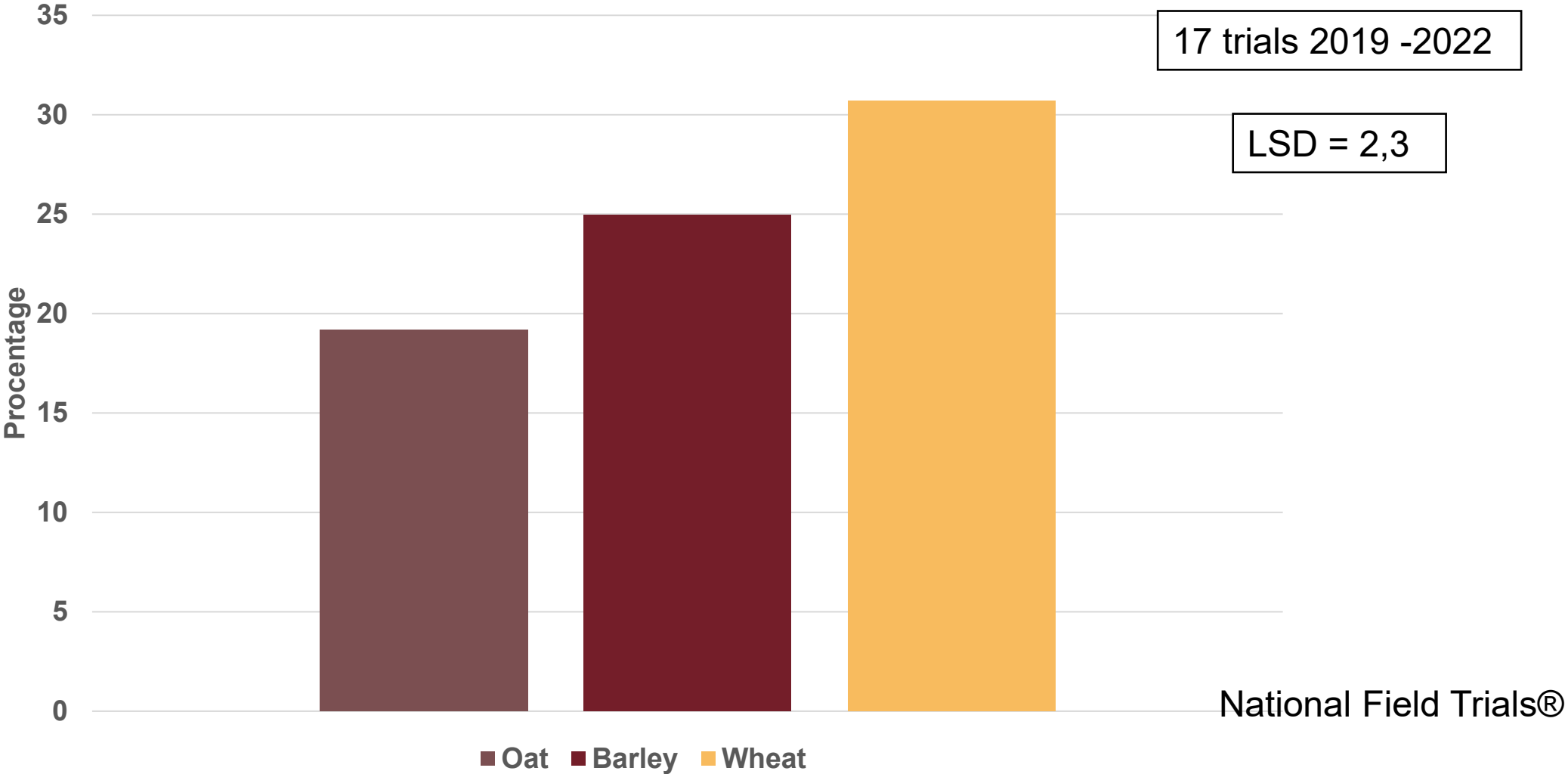


Yield in organic spring crops



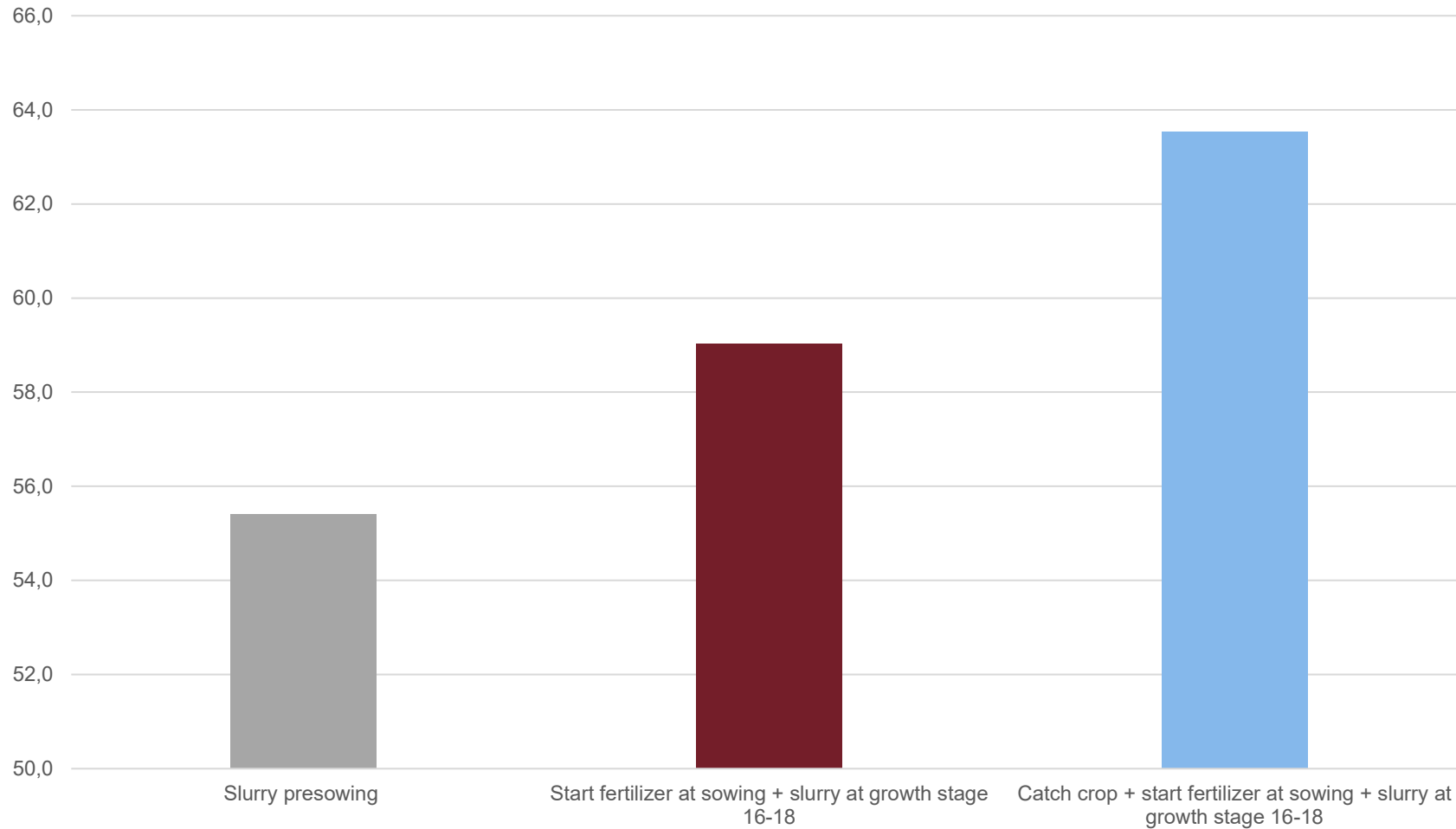
National Field Trials®

Weed competition, percentage weed coverage of soil at heading



Oat: Use of organic manure and catch crops

14 trials 2020 - 2022



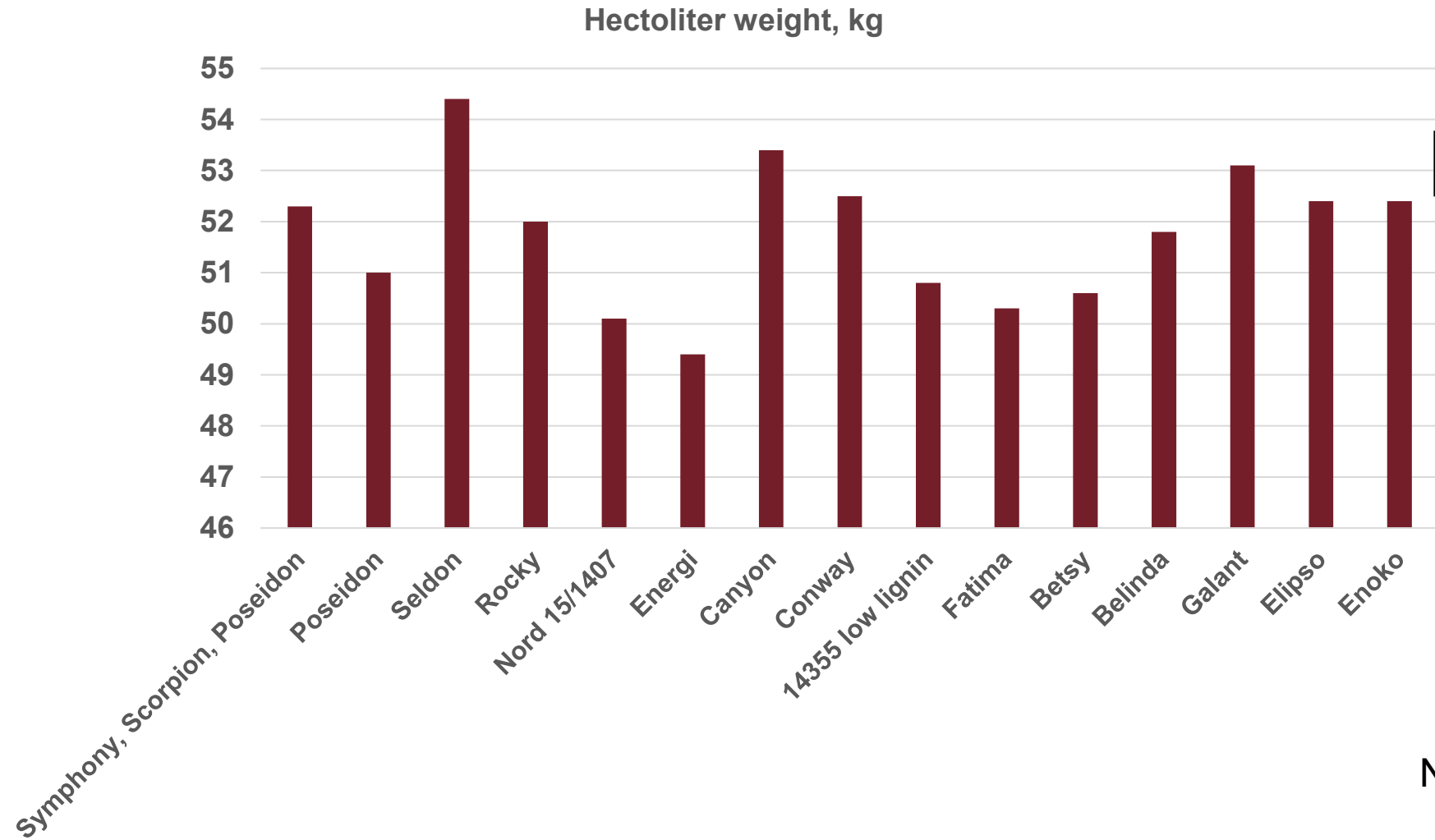
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Trials with organic oat in Denmark



Varieties of oat: hectoliter weight

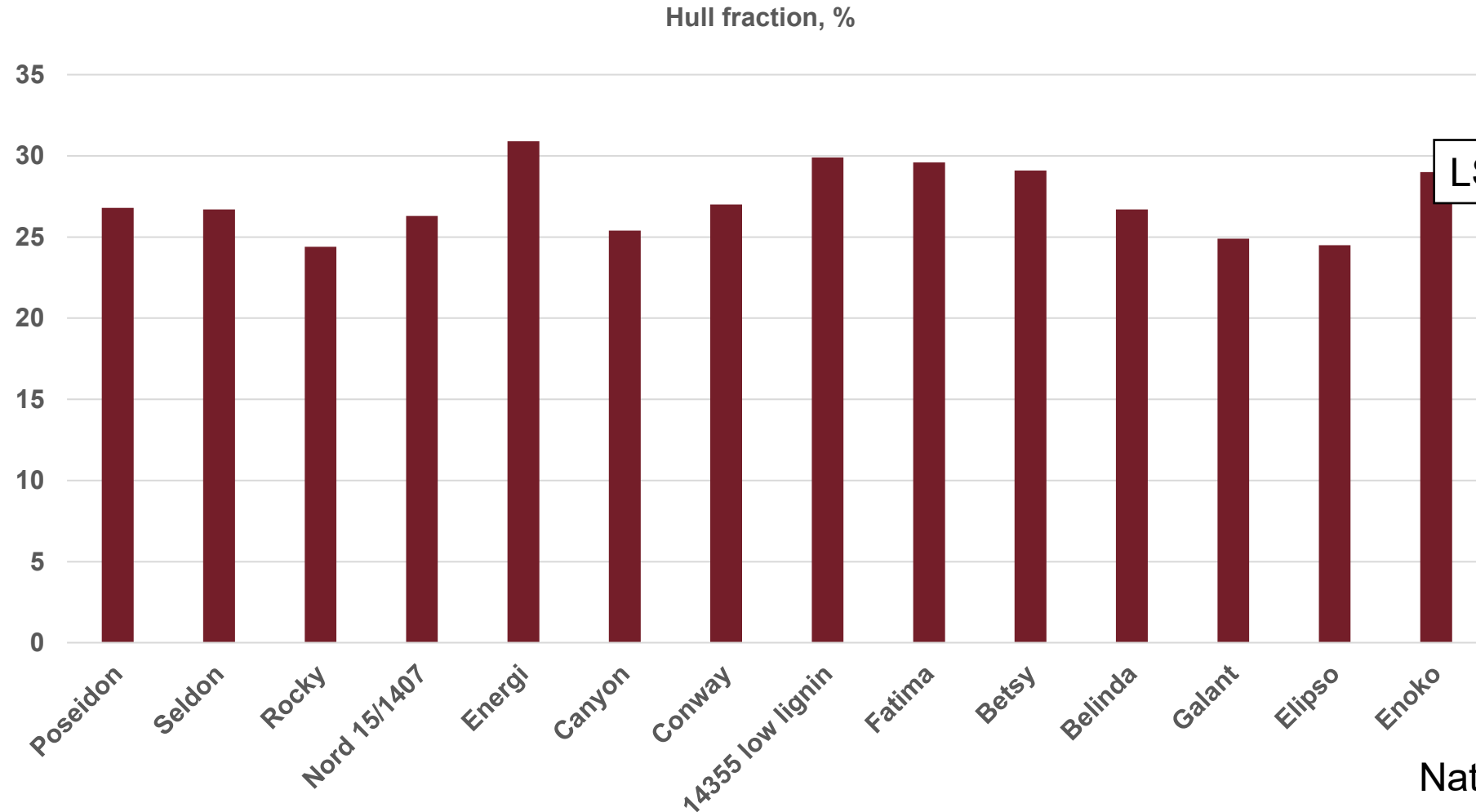
6 trials 2016



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Varieties of oat: content of hulls

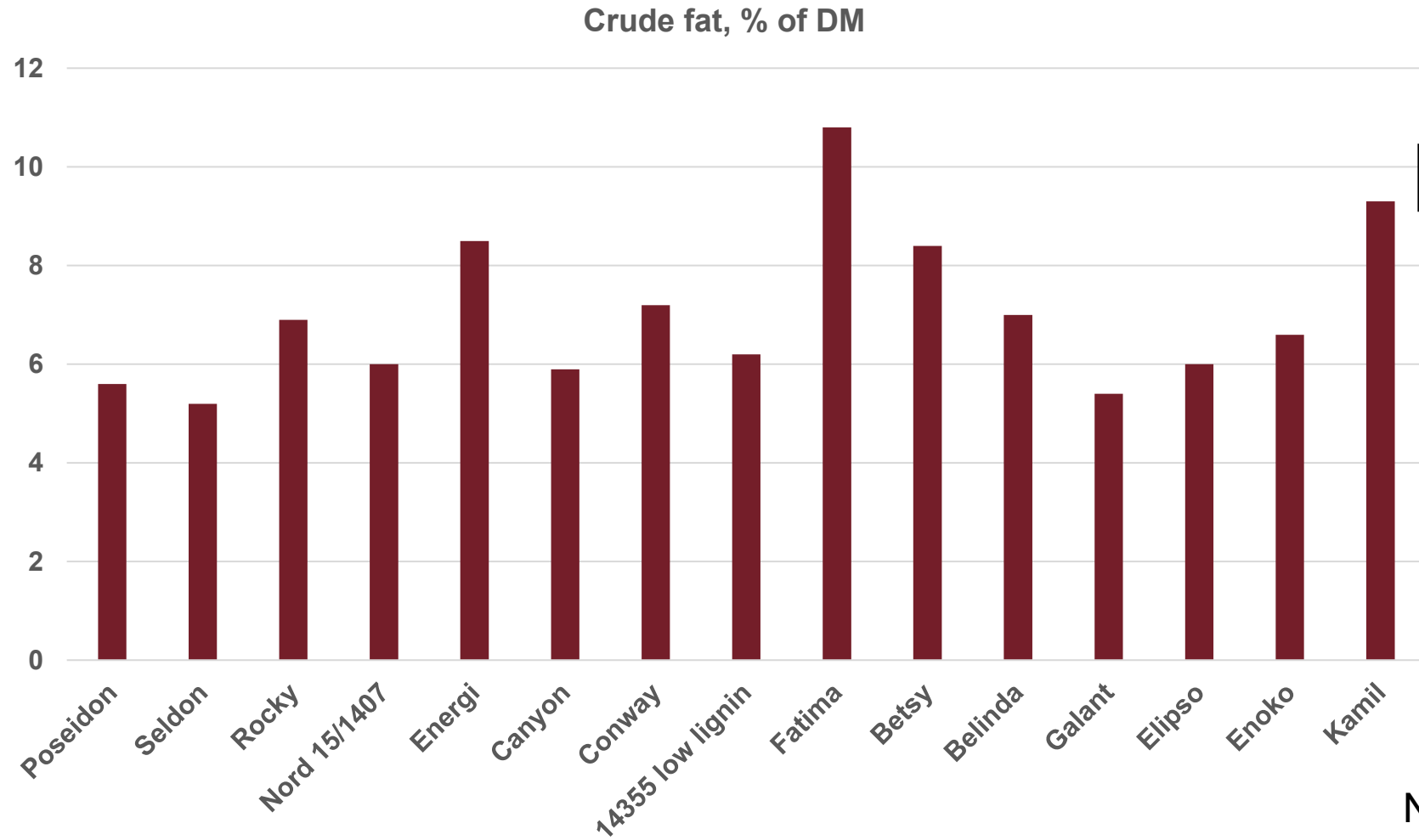
6 trials 2016



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Varieties of oat: content of crude fat

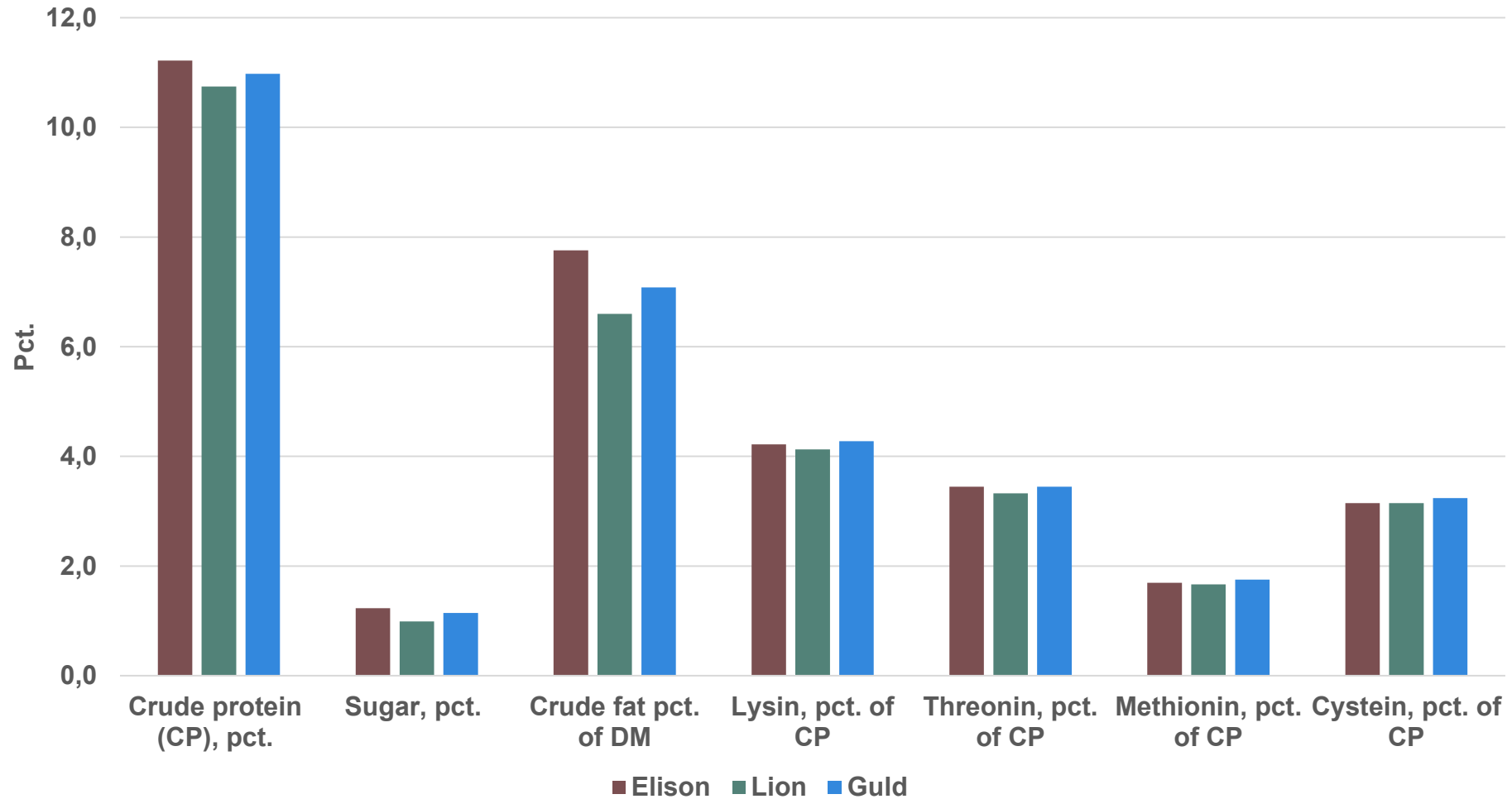
6 trials 2016



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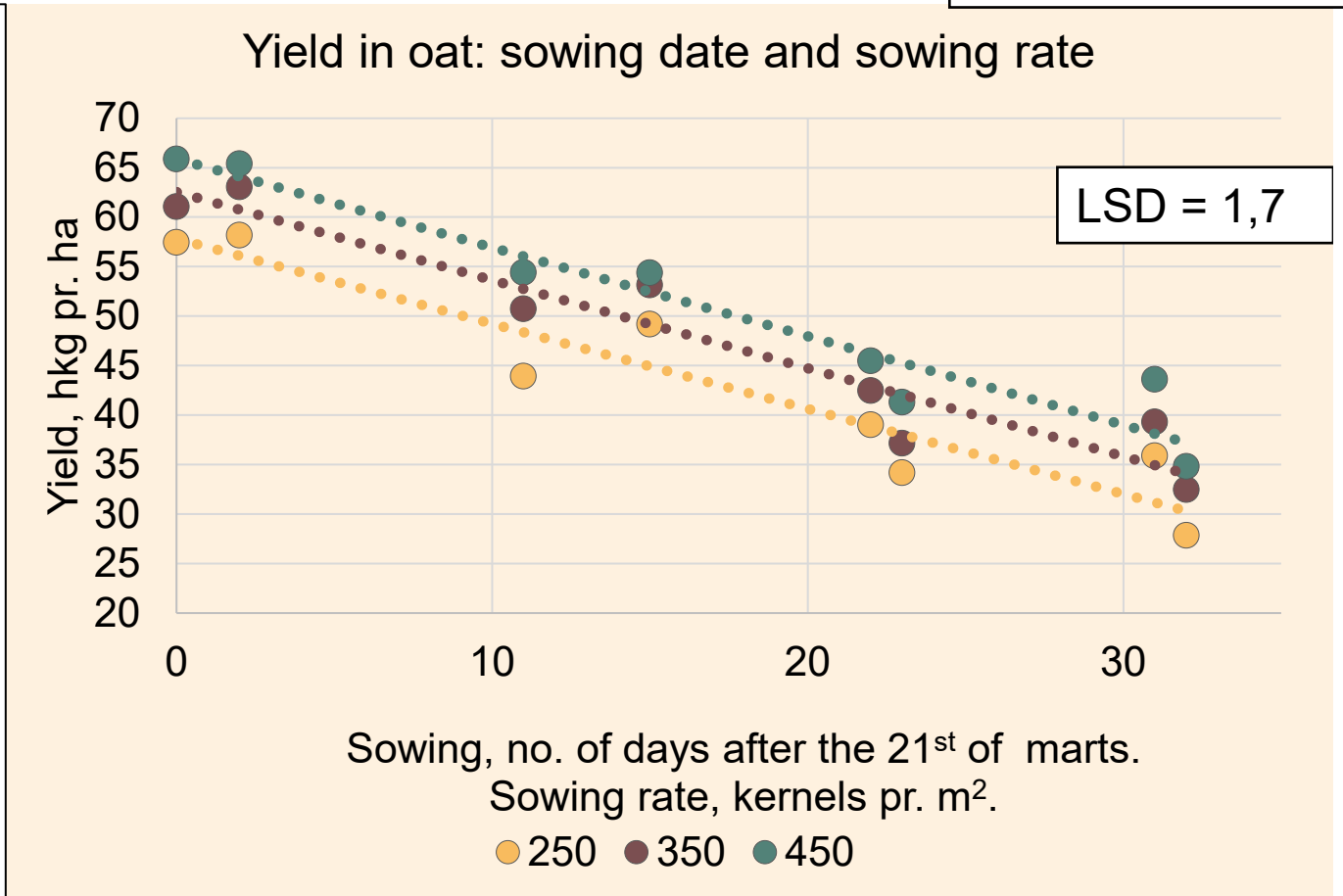
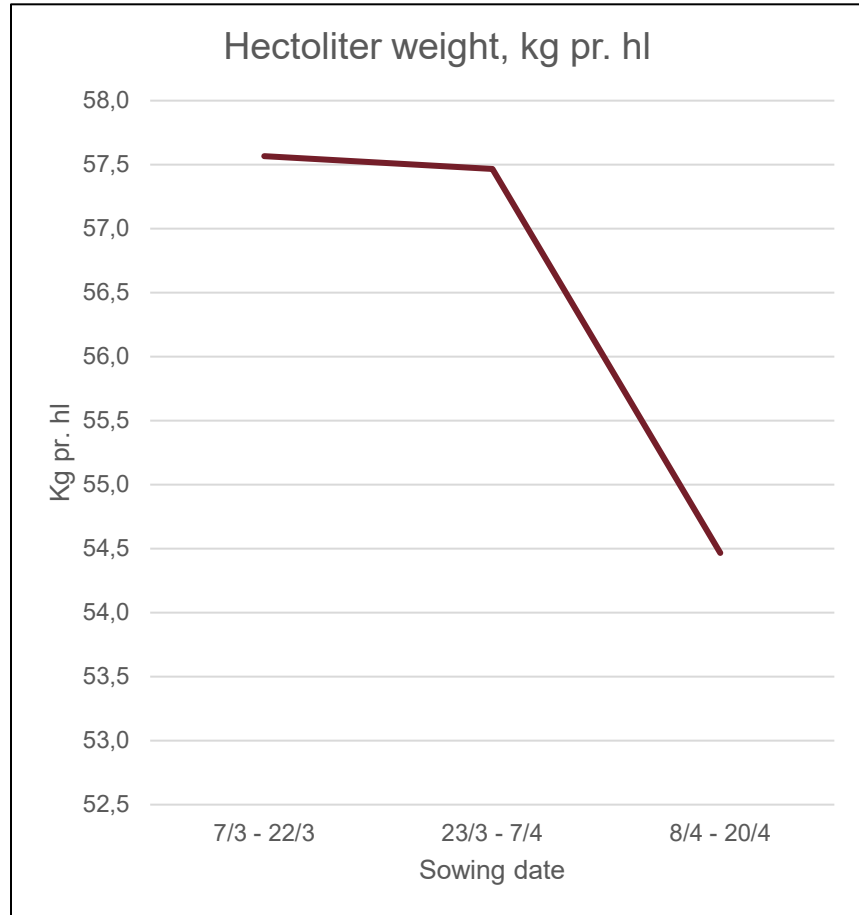
Varieties of oat - dehulled: sugar, crude fat and amino acids

3 trials 2020



Influence of sowing date and seed rate on yield, hectoliter weight (and content of hulls)

5 trials in 2022



Oat for human consumption – health issues

| Component | Beneficial effects |
|---------------|--|
| Betaglucan | Oat beta-glucan has been shown to lower/reduce blood cholesterol |
| Lignan | Possibly lower the risk of cancer |
| Dietary fiber | Oat grain fibre contributes to an increase in faecal bulk |
| Gluten | Free of gluten |
| Amino acids | High biological value due the high content of lysine |
| Fatty acids | High content of unsaturated and poly unsaturated fatty acids |

How can we improve the use of Danish organic oat for human consumption?