1st place **Louise Burger**





Will an incentive justify lower yields?

Analysing the effect of cultivar selection and different pricing



Problem statement

whilst maintaining yields to the point that the farmer makes up the profit lost from yield with the incentive for oil content. Yet, it is difficult for a farmer to know how he can achieve this point without the relevant cultivar analysis based on yield and oil content, and understanding of oil content and

2010 - 2019

Incentive for each 1% oil content above the

Project aim

- Determine the relationship between uield and oil content in various cultivars Develop a model to compare cultivars 2 and scenarios
- Identify the optimal strategy for the sunflower industry

Currently, farmers are only paid for higher yields & A trade-off in

seed is debated between uield and oil content

Ton/ha uield

in both oil content

and yield delivers a higher average oil conten and a slightly lower yield.

but a 2% incentive for each 1%

oil content above 38% resulted in

higher farmer margins than the scenario in which farmer continue as

is: growing only for higher yields to improve profits without a possible incentive.

The production process



Sunflower seeds are processed into oil and oil cake

more valuable than oil cake and therefore critical for profitability of sunflower

Cultivar selected determines the % oil content per seed determines the ratio of

oil content: oil cake

Validation Compared to alternative the top ter ranking cultivars

15% 3.6%

Farmer margins 🔼 Oil content (%)

Recommendations

For a more competitive and sustainable sunflower industry: Include sunflower oil Disregard correlation Incentivise farmers content as a prioritu in cultivar evaluation

in cultivar analysis



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