



# MAIZE Nutrient TRIALS Review 2019-2021

# MGA N Curve Trial 2019-2021



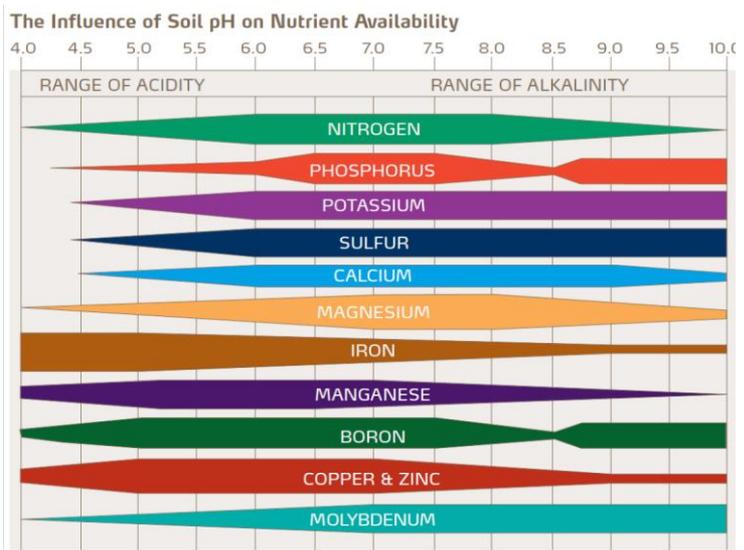
## Forage maize – nitrogen, phosphate and potash

Table 3.19 Nitrogen, phosphate and potash recommendations for forage maize

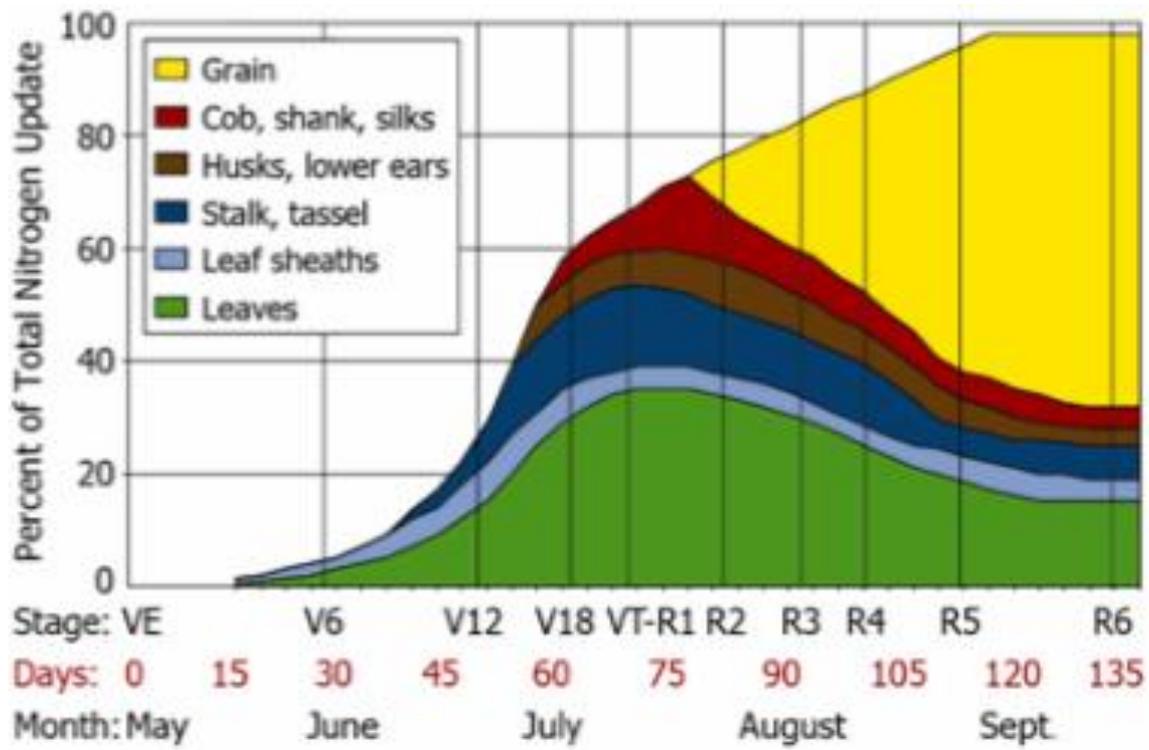
Nutrient	SNS, P or K Index				
	0	1	2	3	4 and higher
	kg N/ha				
Nitrogen	150	100	50	20	0
Phosphate <sup>a</sup>	115	85	55	20	0
Potash <sup>a</sup>	235	205	175 (2-) 145 (2+)	110	0

a. Estimates based on a 40 t/ha fresh weight yield. Use Table 3.2 to adjust for higher or lower yields.

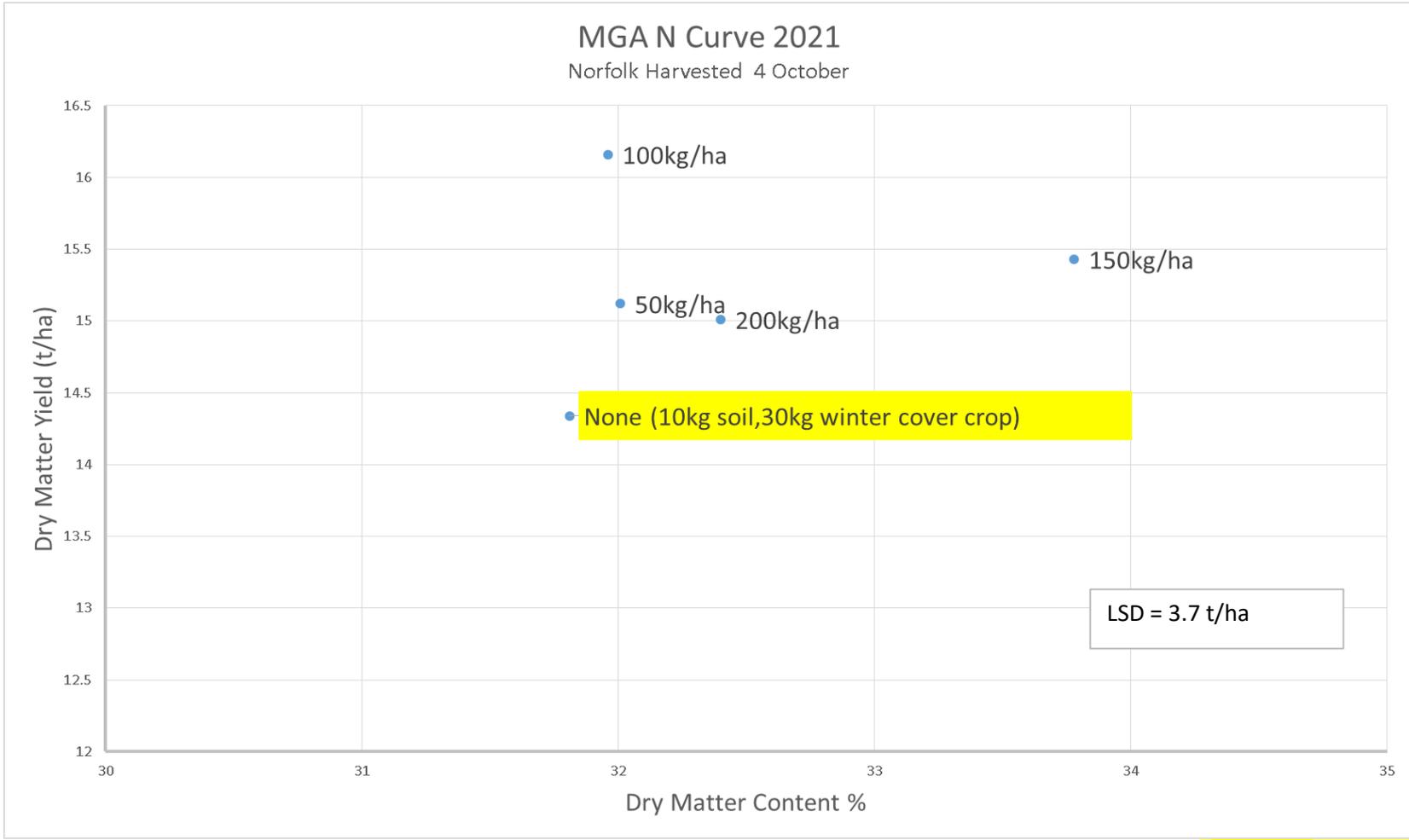
Evidence is being gathered by the Maize Growers Association (MGA) that forage maize could respond to higher levels of nitrogen. Currently there is not enough data to justify changing the recommendations but it is area of further work. Discuss with a FACTS Qualified Adviser and use MGA's nitrogen predictor form.



# MGA N Curve Trial 2019-2021



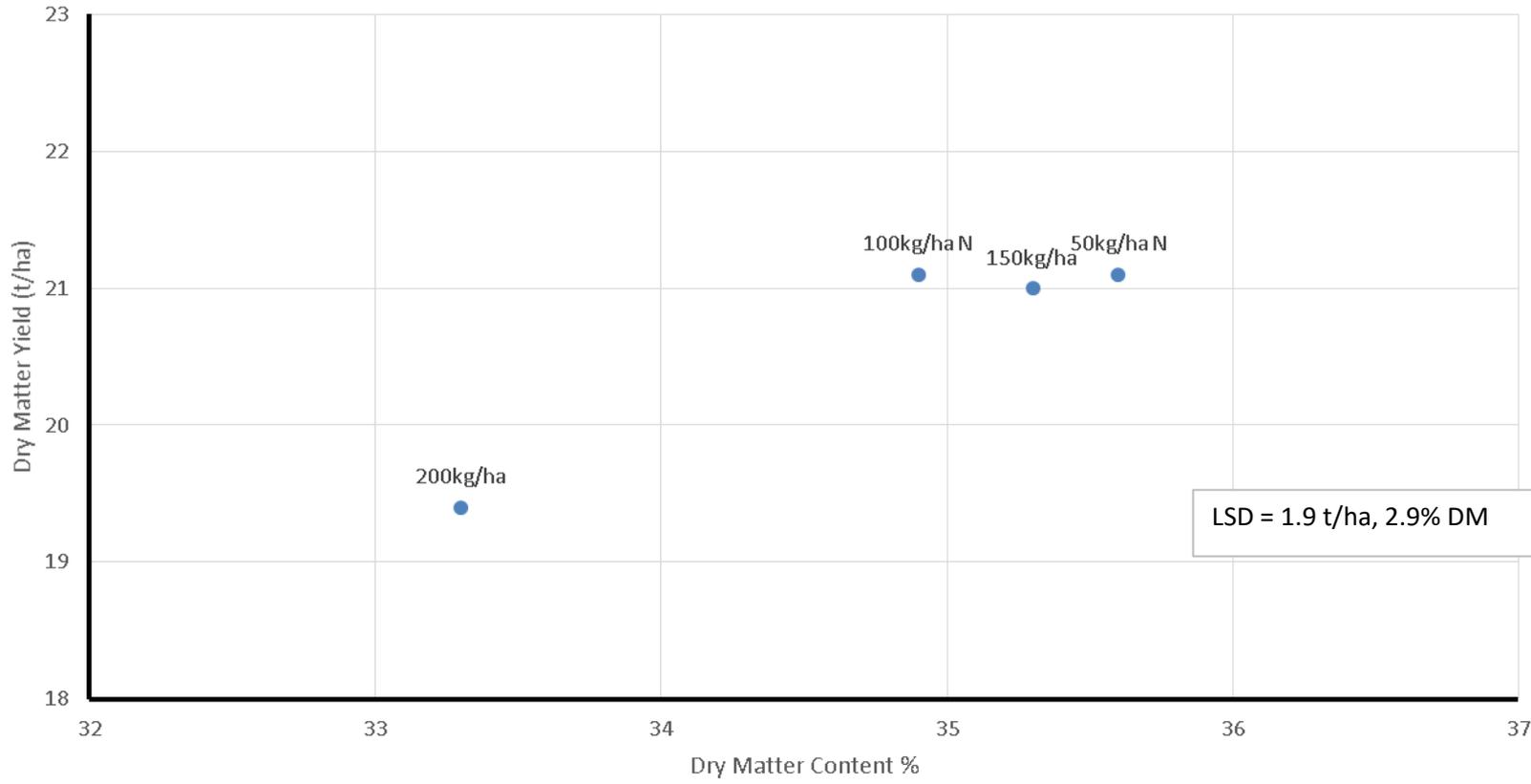
# MGA N Curve Trial 2021



# MGA N Curve Trial 2019



MGA Nitrogen Curve - Norfolk  
Drilled 18 April 2019  
Harvested 10 September 2019  
DM Yield



# MGA N Curve Trial 2019-2021



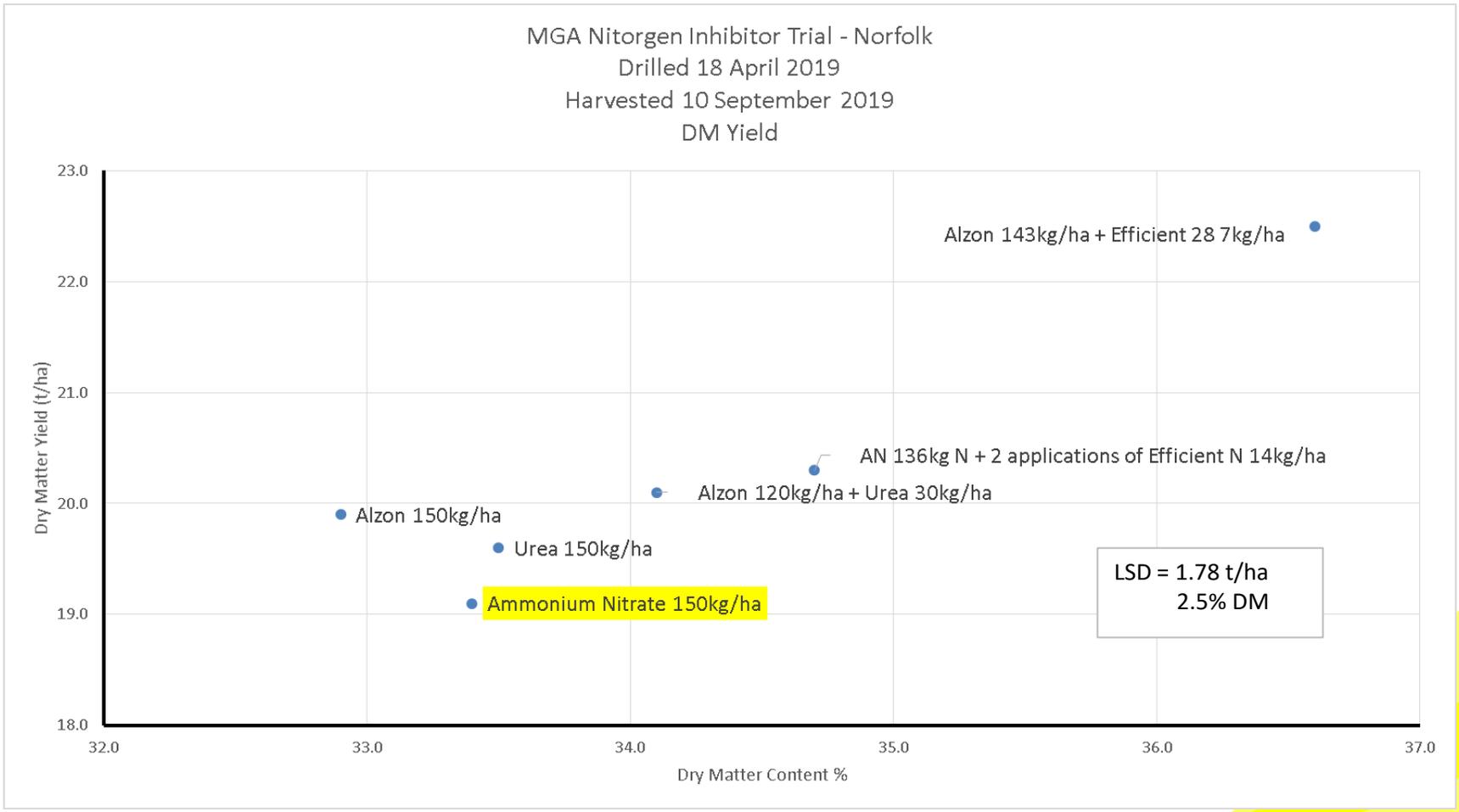
## take home message:

Check soil pH to ensure no nutrient lock up

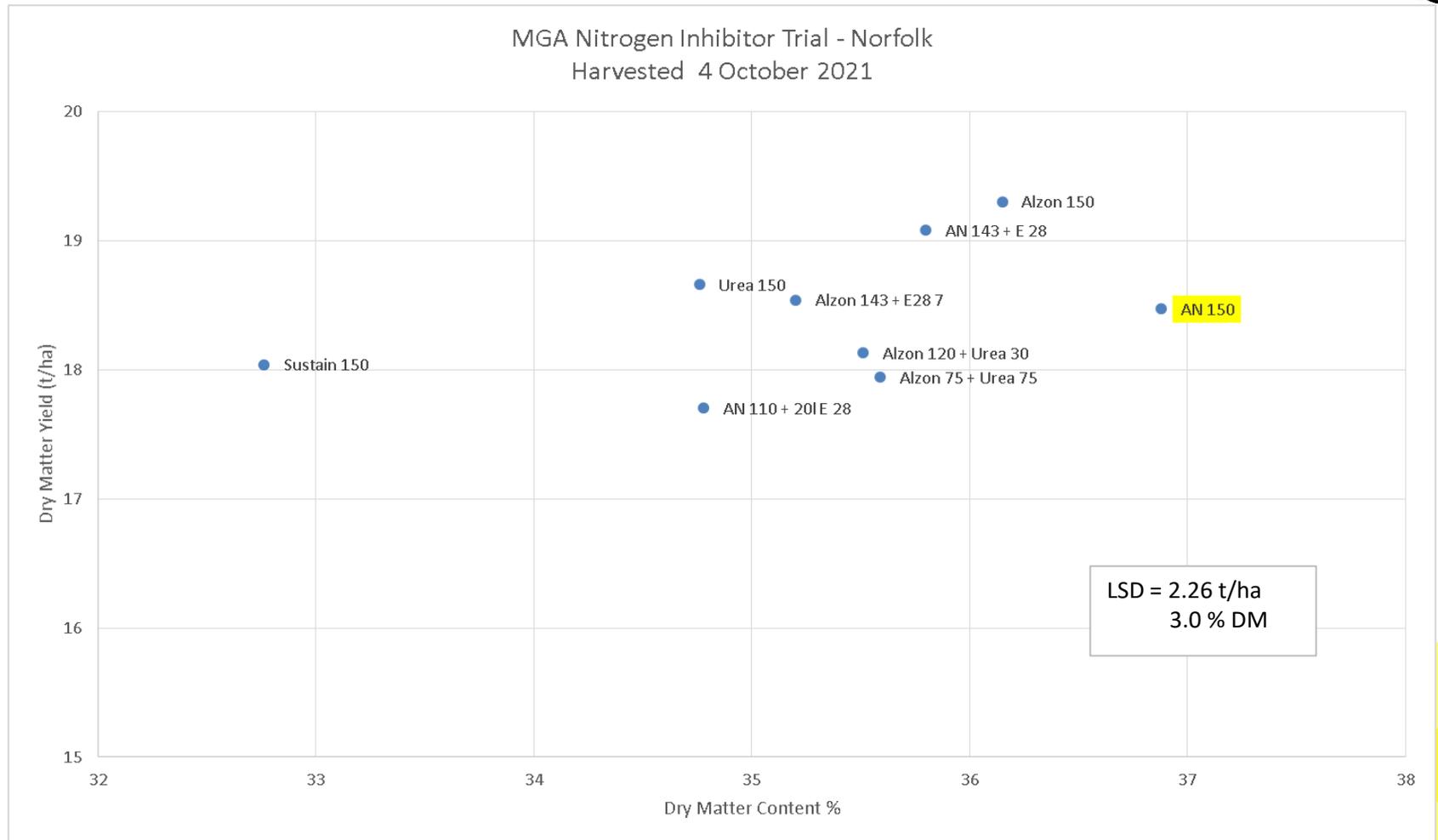
On fertile soils with history of FYM and slurry unlikely to need any bagged nitrogen

Use of over winter cover crops can provide 30-50kg N to maize crop

# MGA Nitrogen Inhibitors 2019



# MGA Nitrogen Inhibitors 2021



# MGA Nitrogen Inhibitors 2019-2021

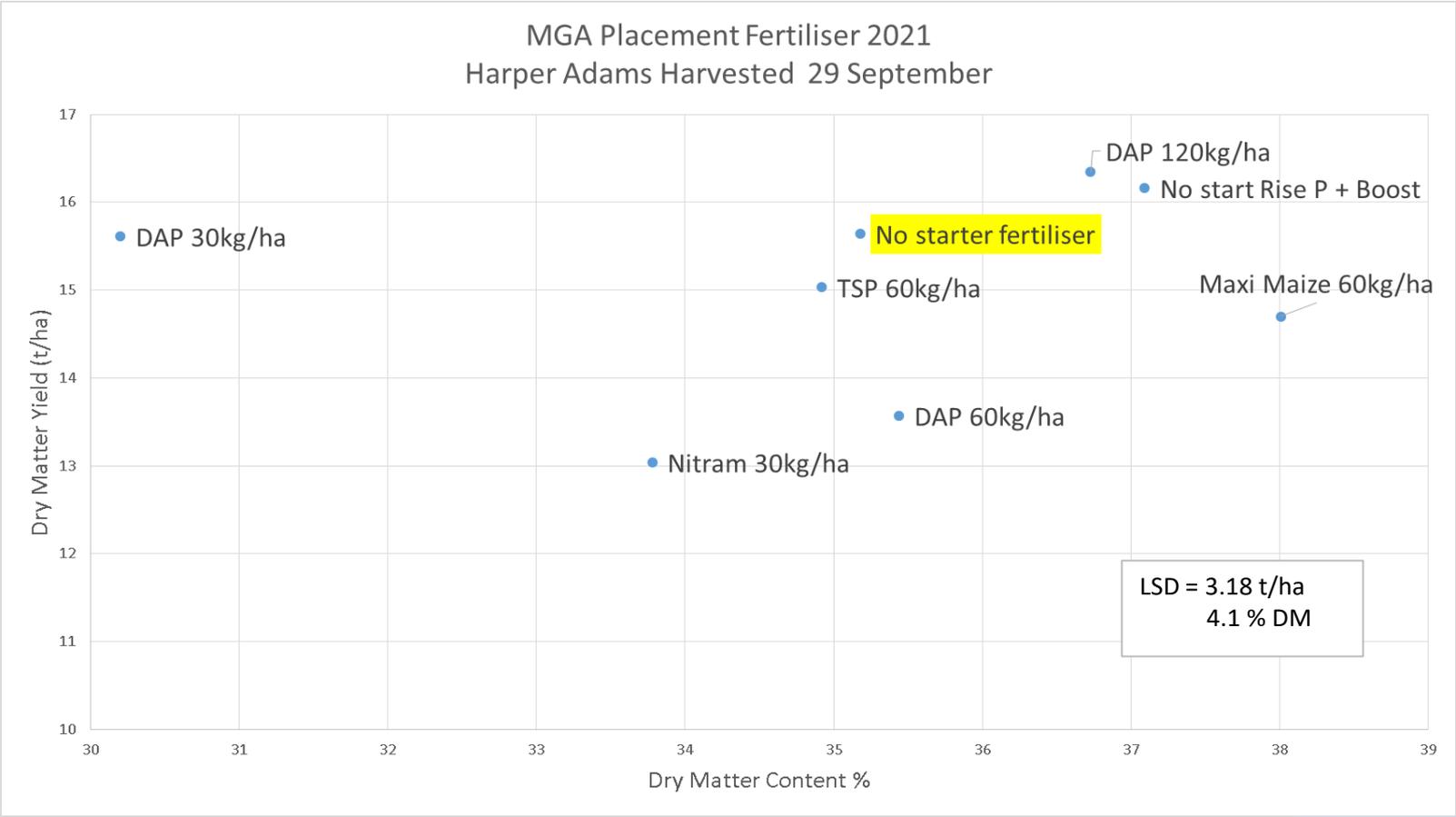


## take home message:

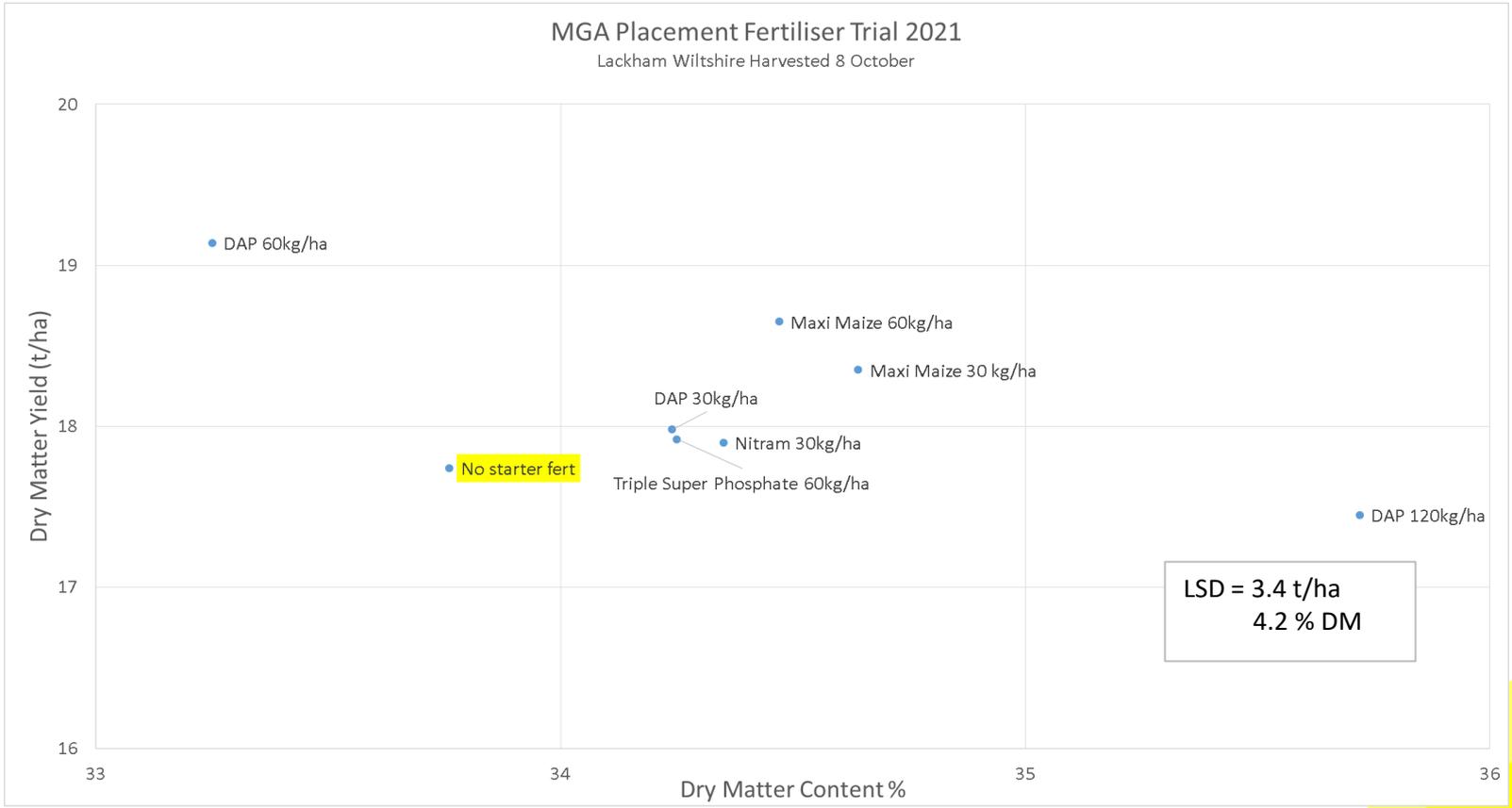
Using protected nitrogen fertilisers are important to ensure nitrogen is not lost to the environment.

Consider using a non scorch foliar N product applied to the crop prior to tasselling to drive grain yield.

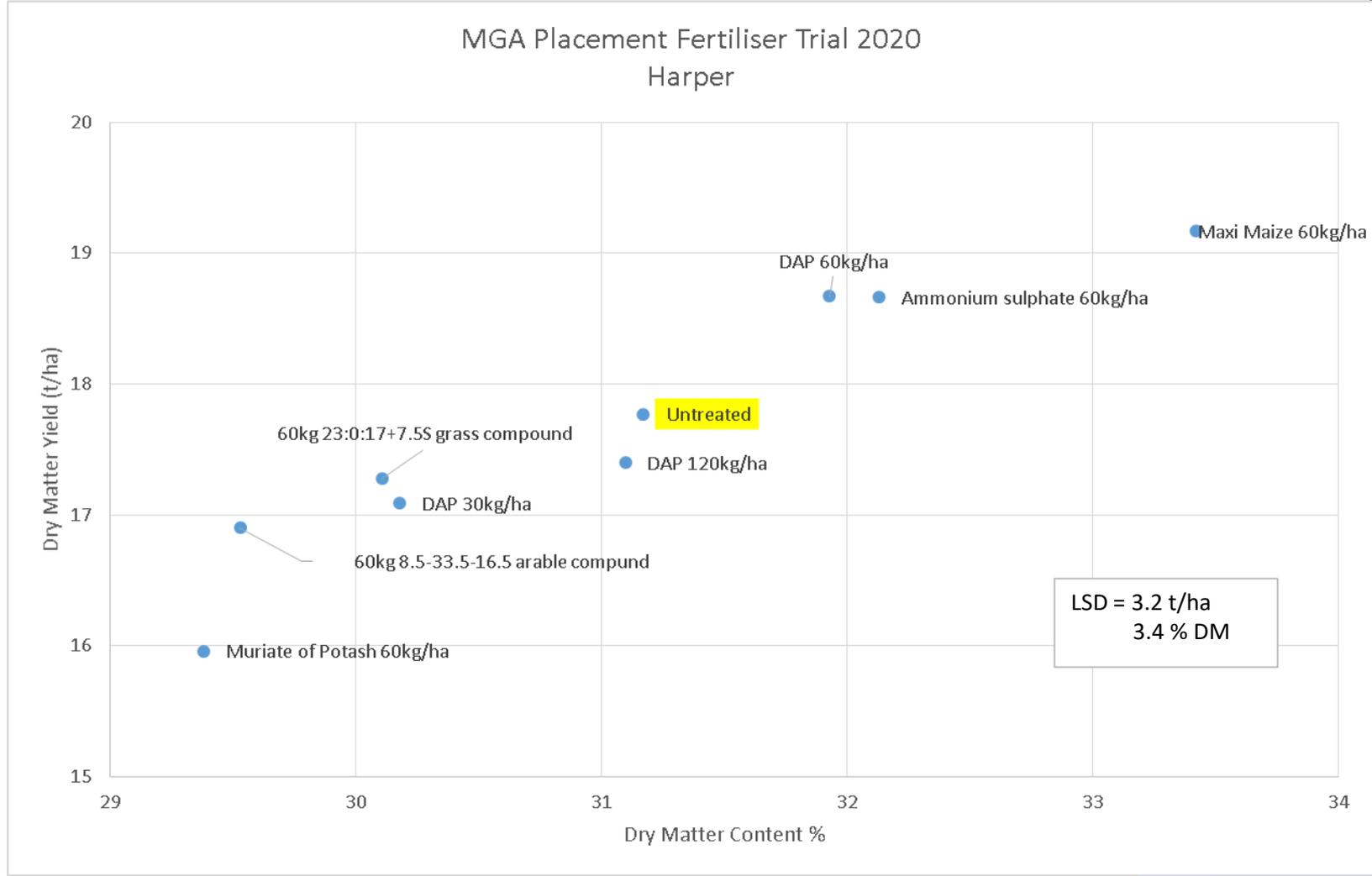
# MGA Placement Fertiliser 2019-2021



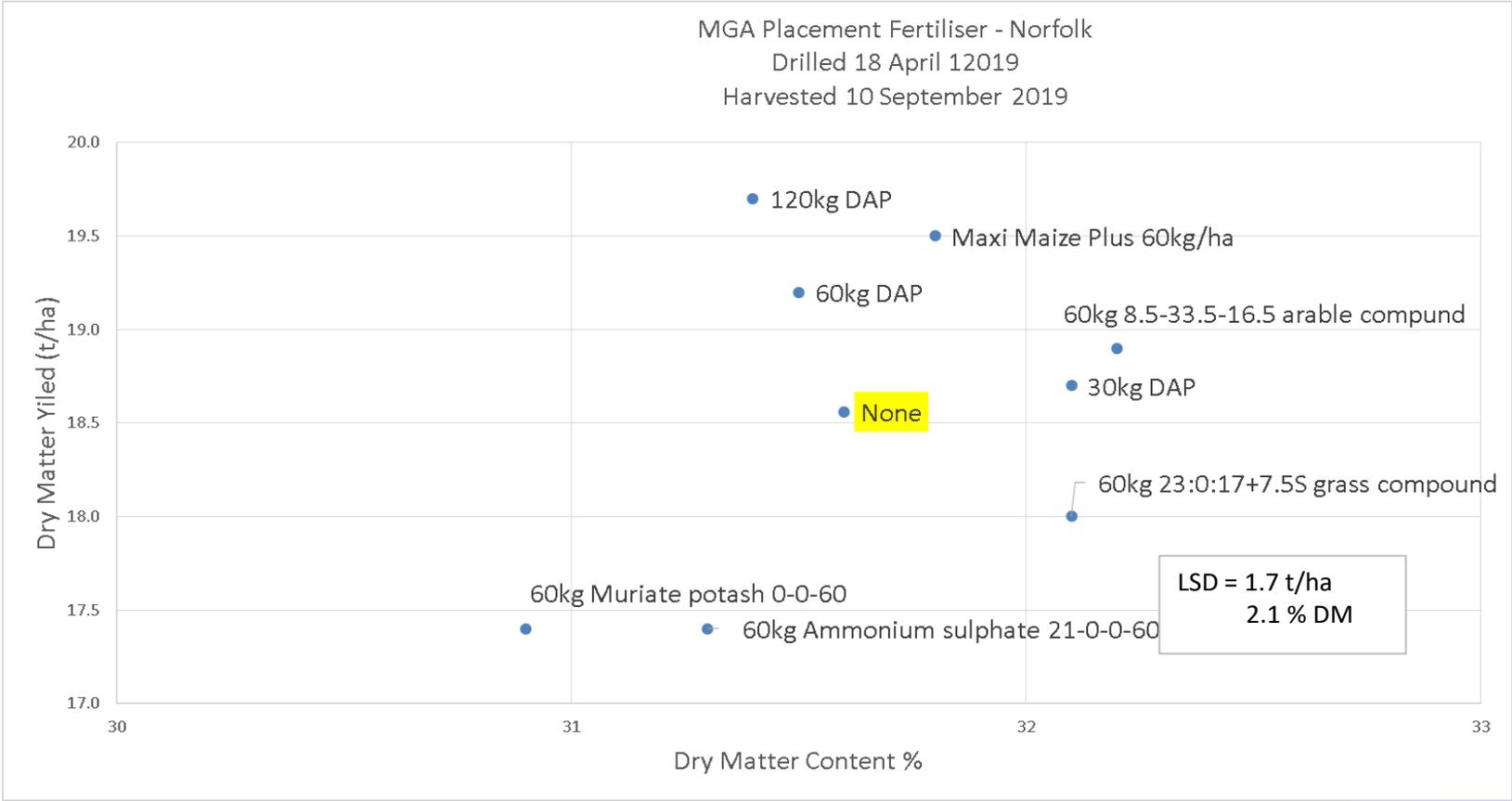
# MGA Placement Fertiliser 2019-2021



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# MGA Placement Fertiliser 2019-2021



## take home message:

Placed fertiliser should only be used when the soil indices show deficit

Although differences in growth can be seen in June recording a statistical differences at harvest is rare

Danish research would suggest 50kg fresh P promotes early plant growth

# MGA Plant Biostims 2020-2021



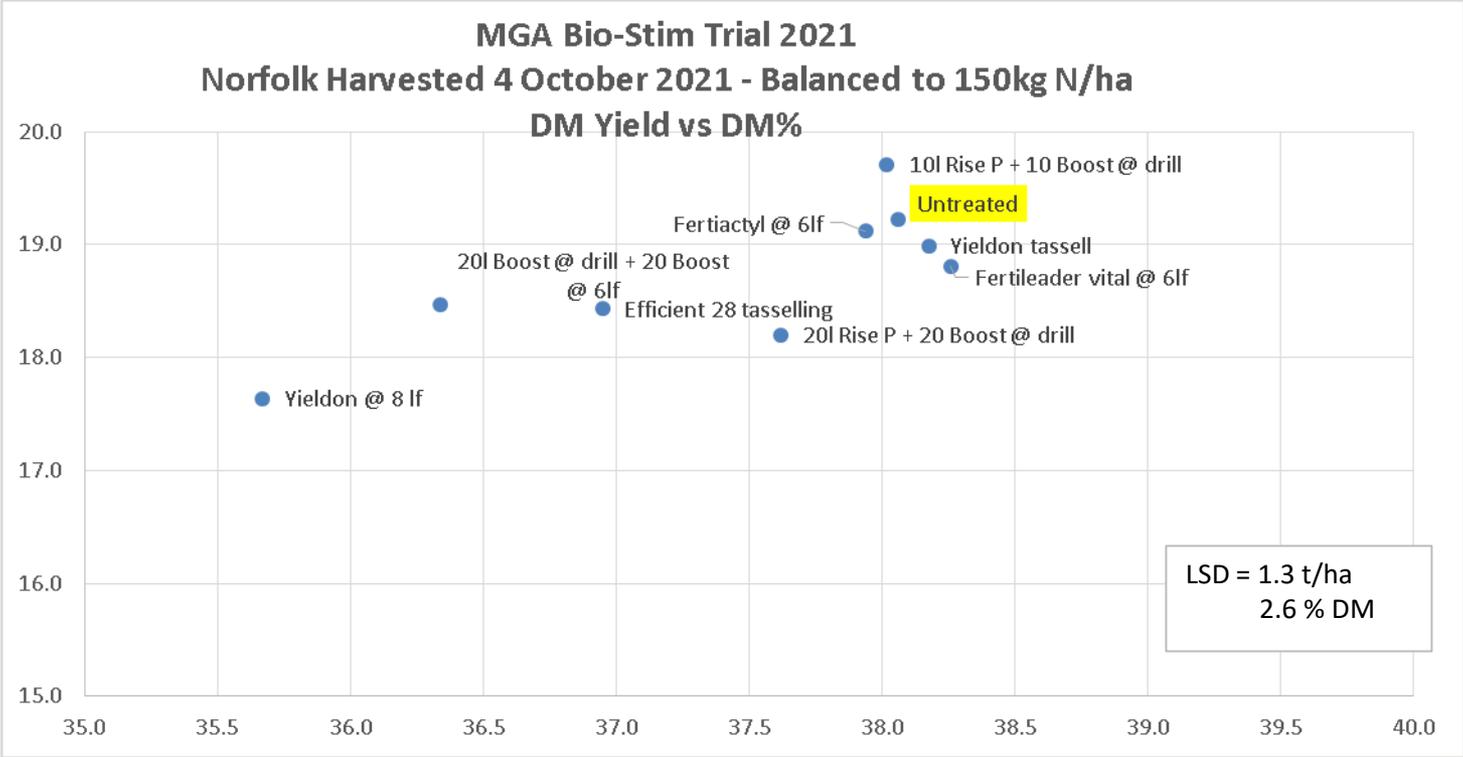
MGA Norfolk breakfast meeting 2022

Long hot summer with little rain from  
May until October

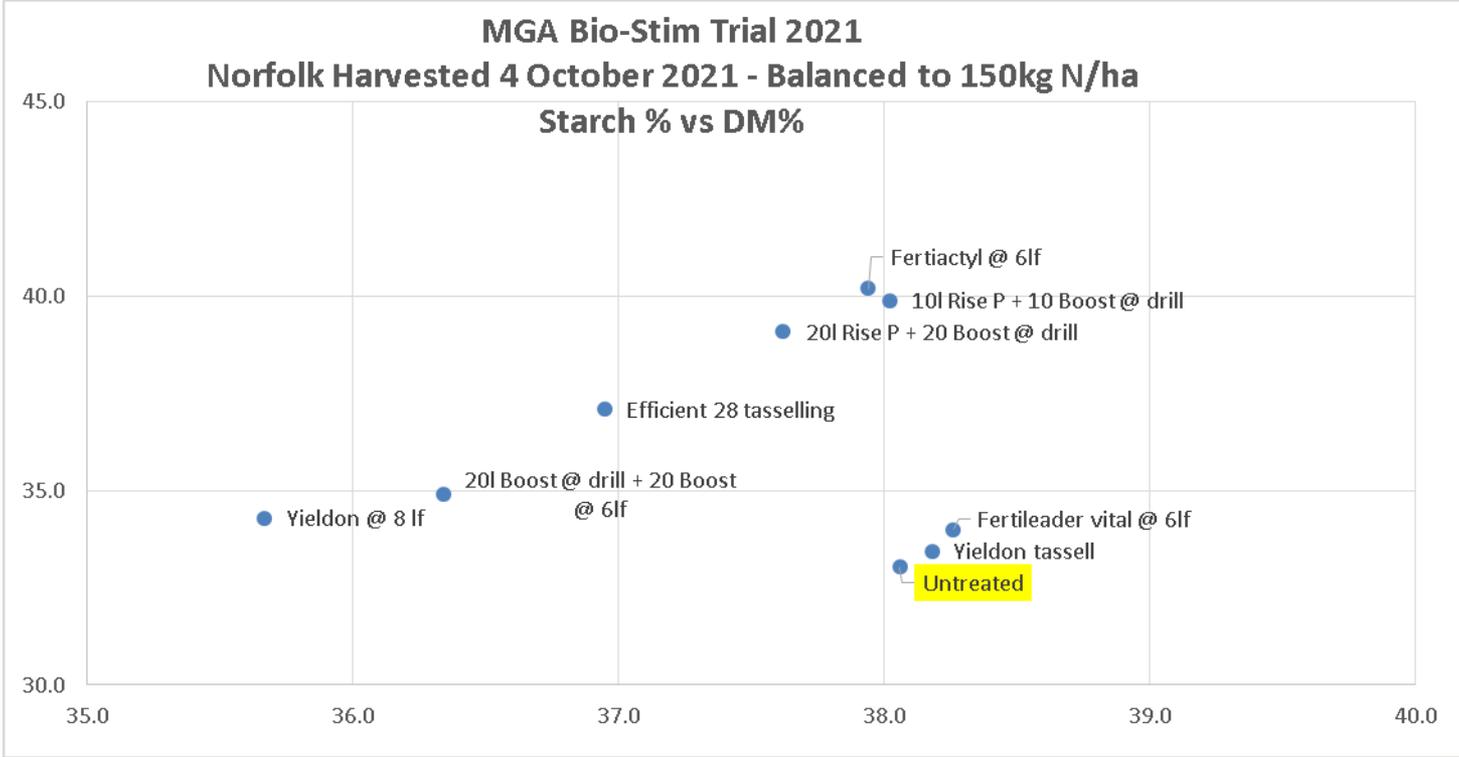
No biostim product tested produced  
any extra benefit

40°C temperature was too much for  
pollen viability

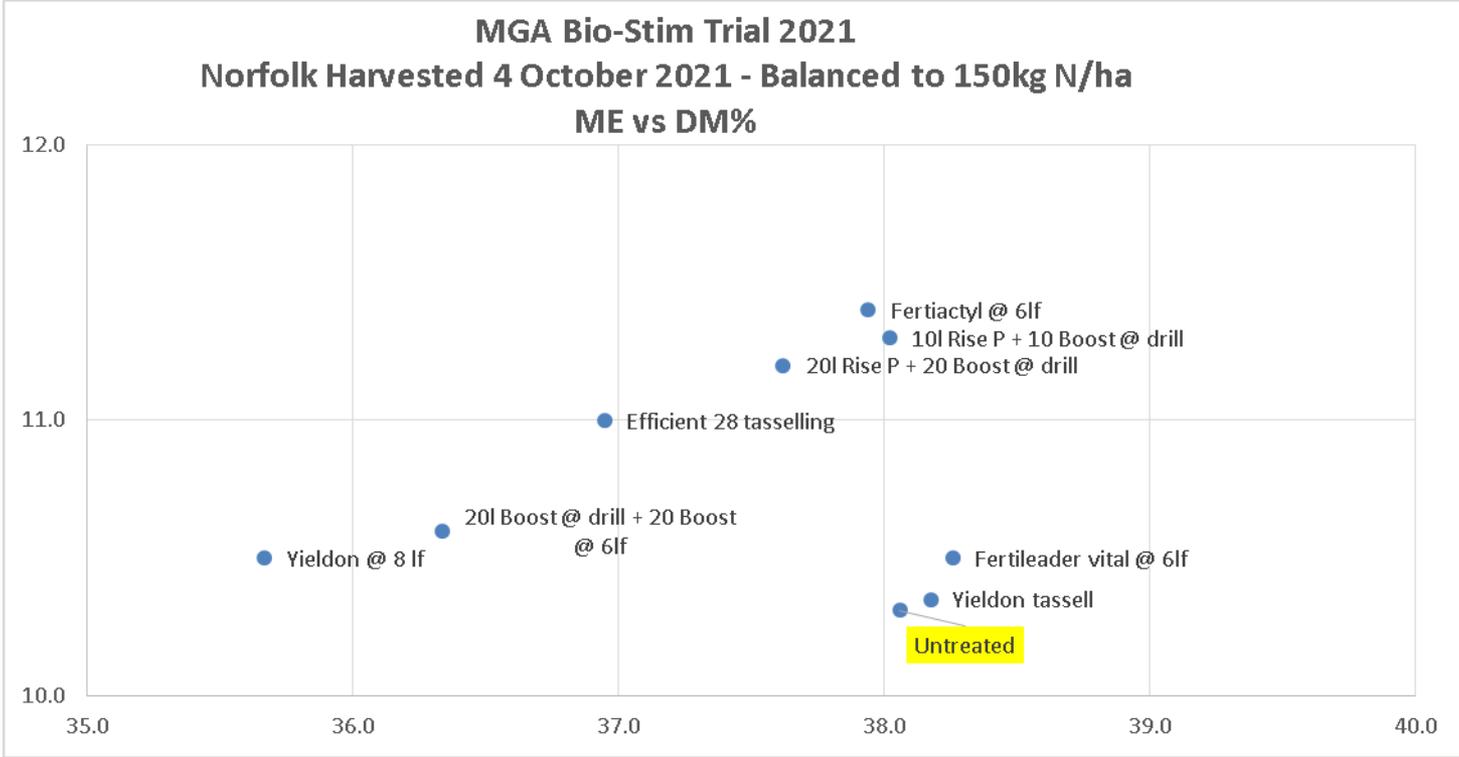
# MGA Plant Biostims 2021 - Norfolk



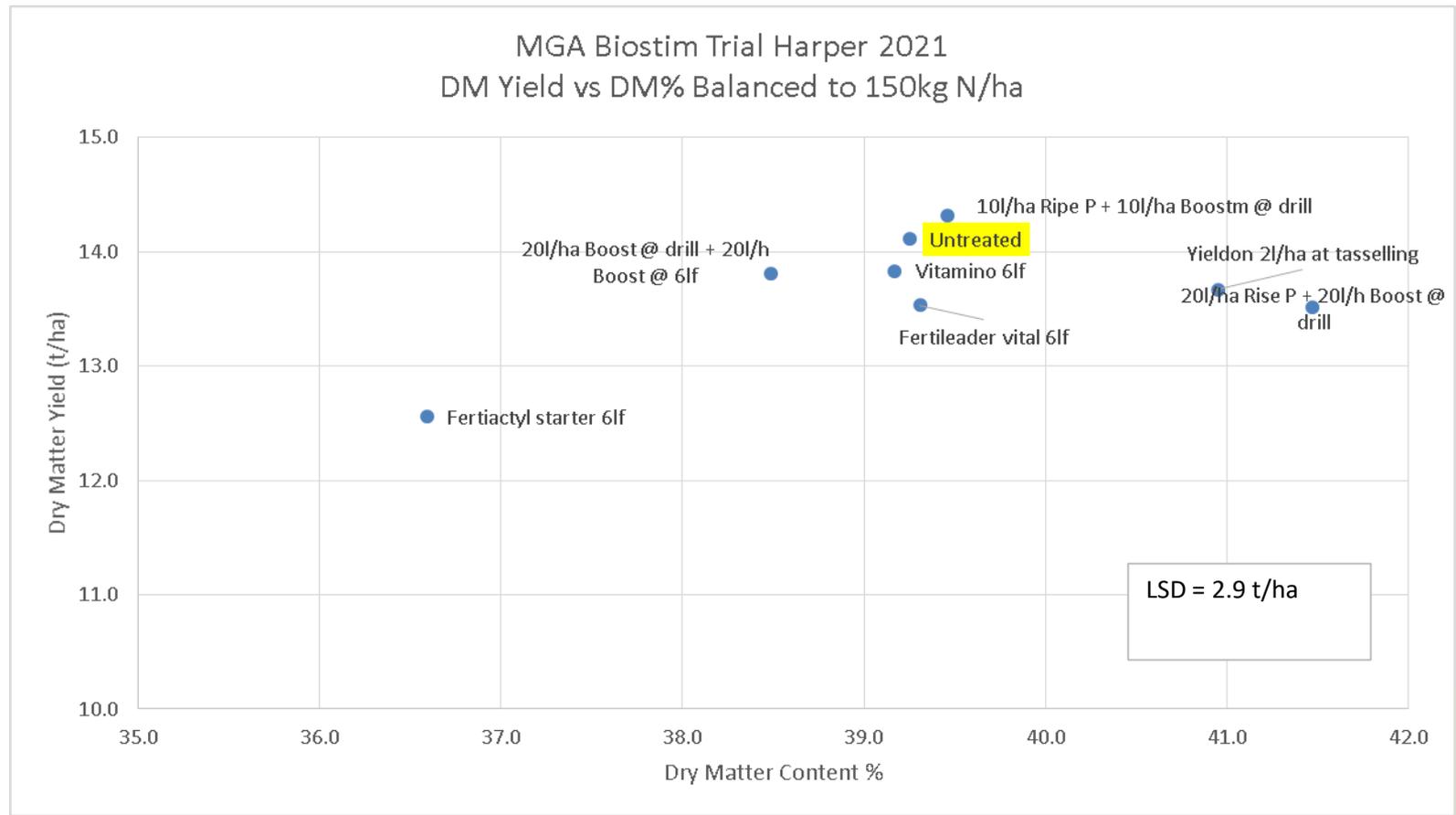
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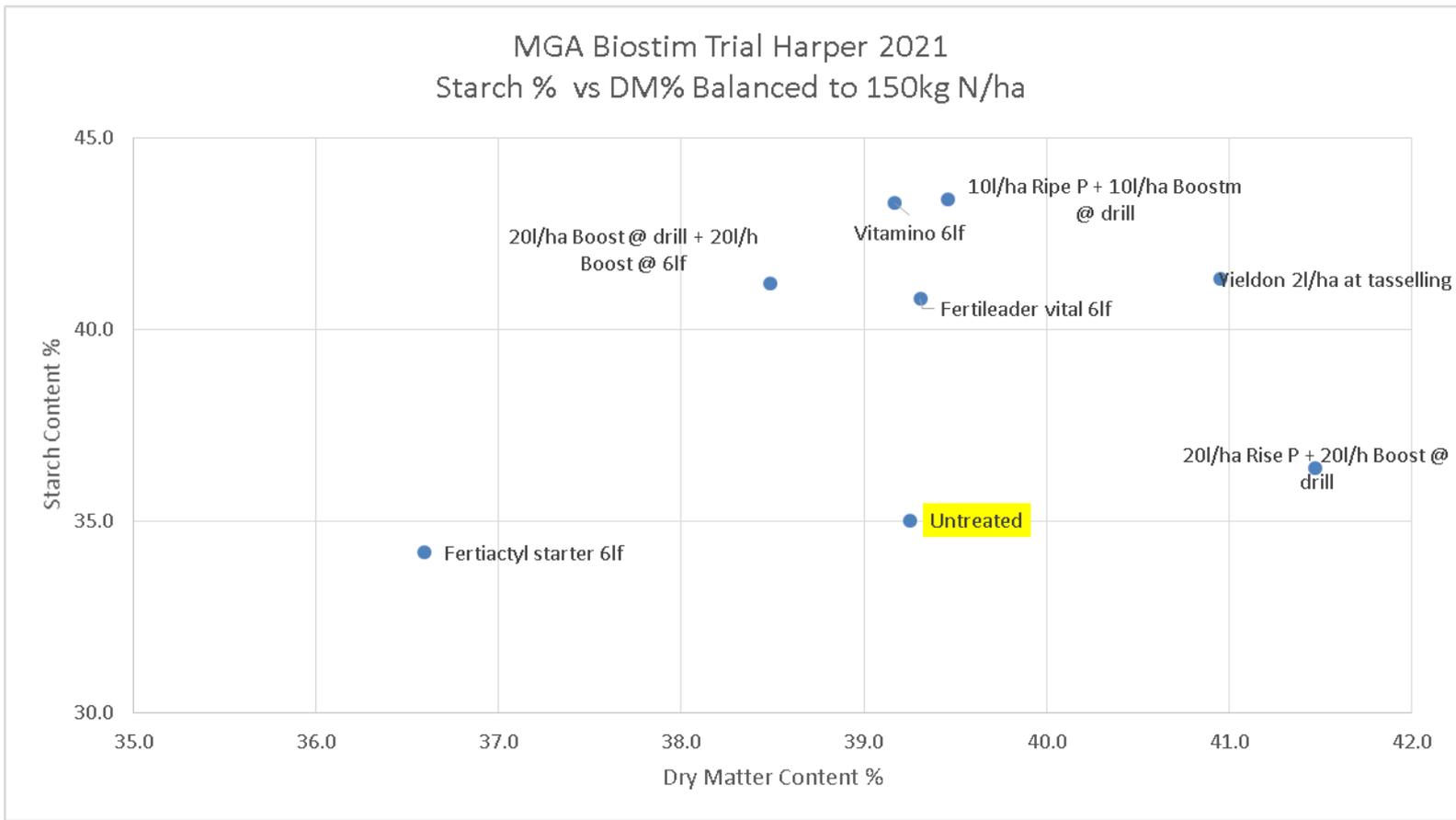
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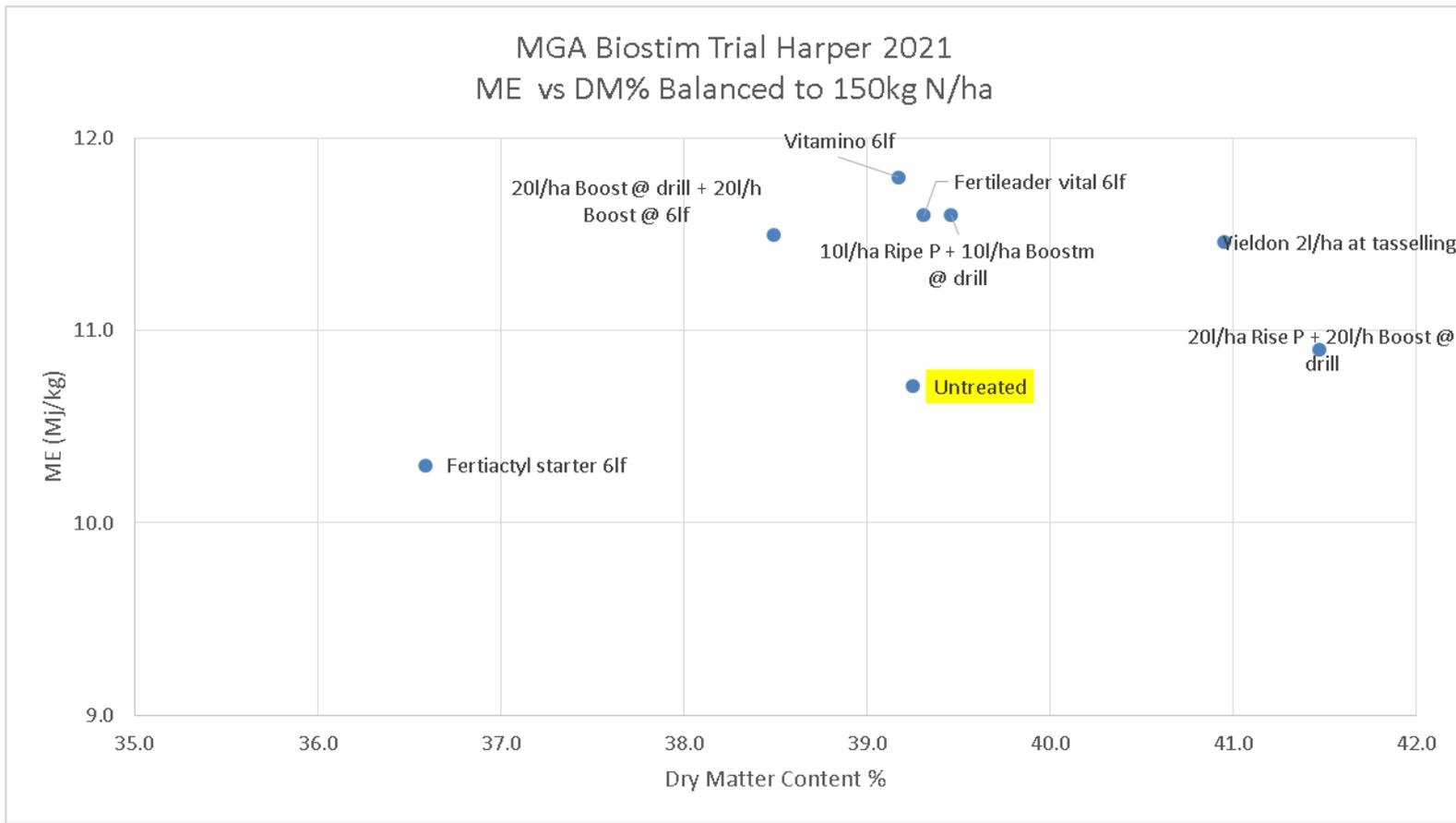
# MGA Plant Biostims 2021 - Harper



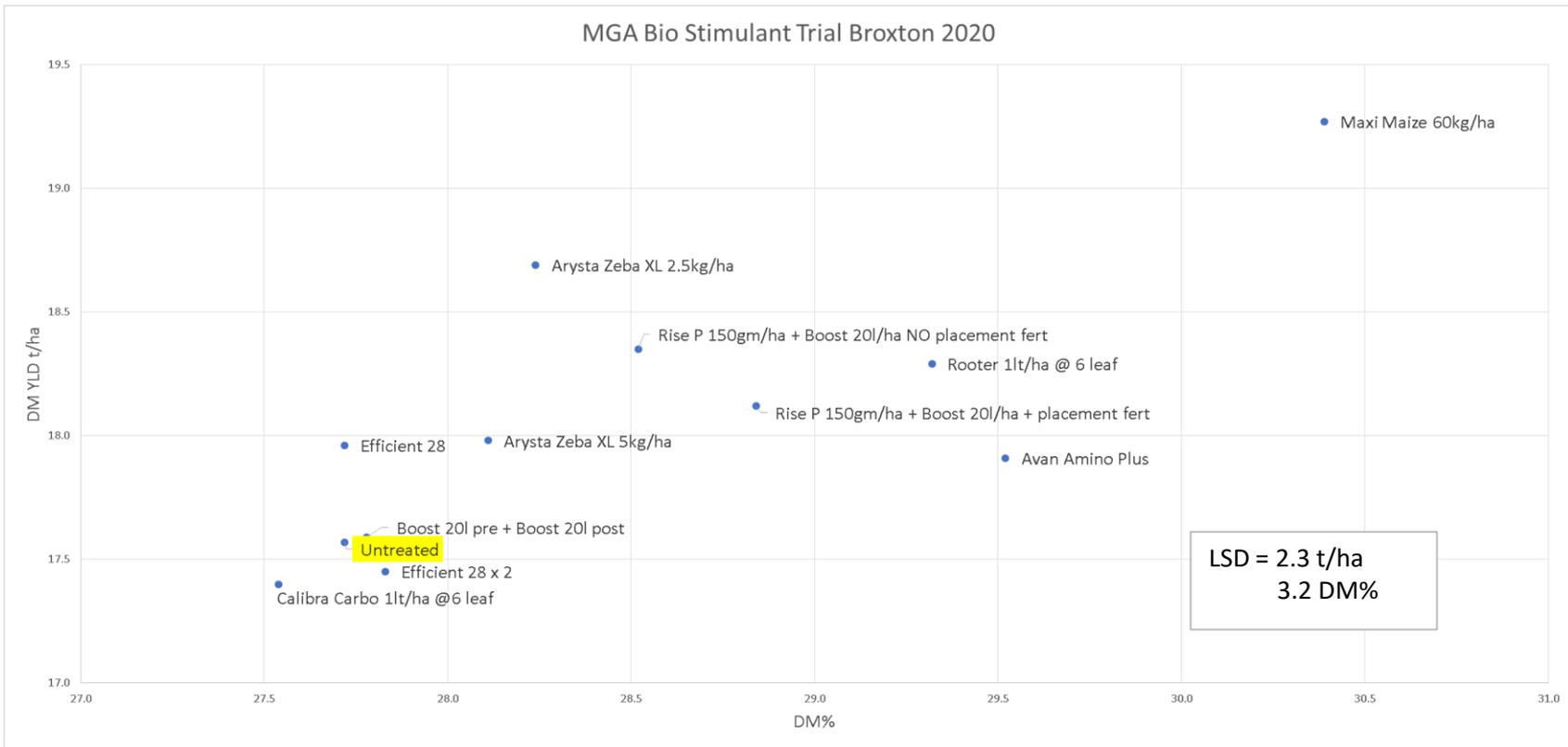
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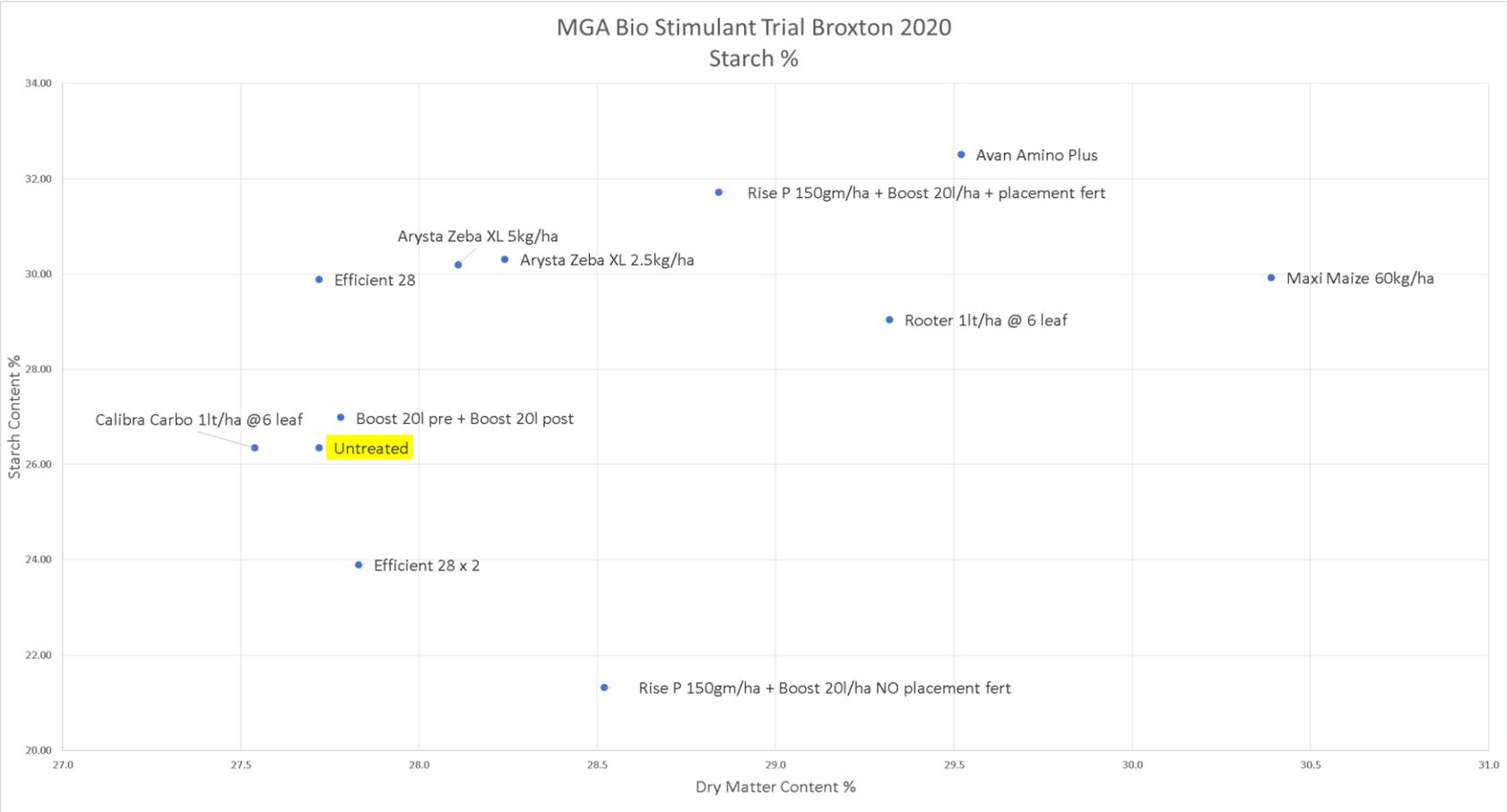
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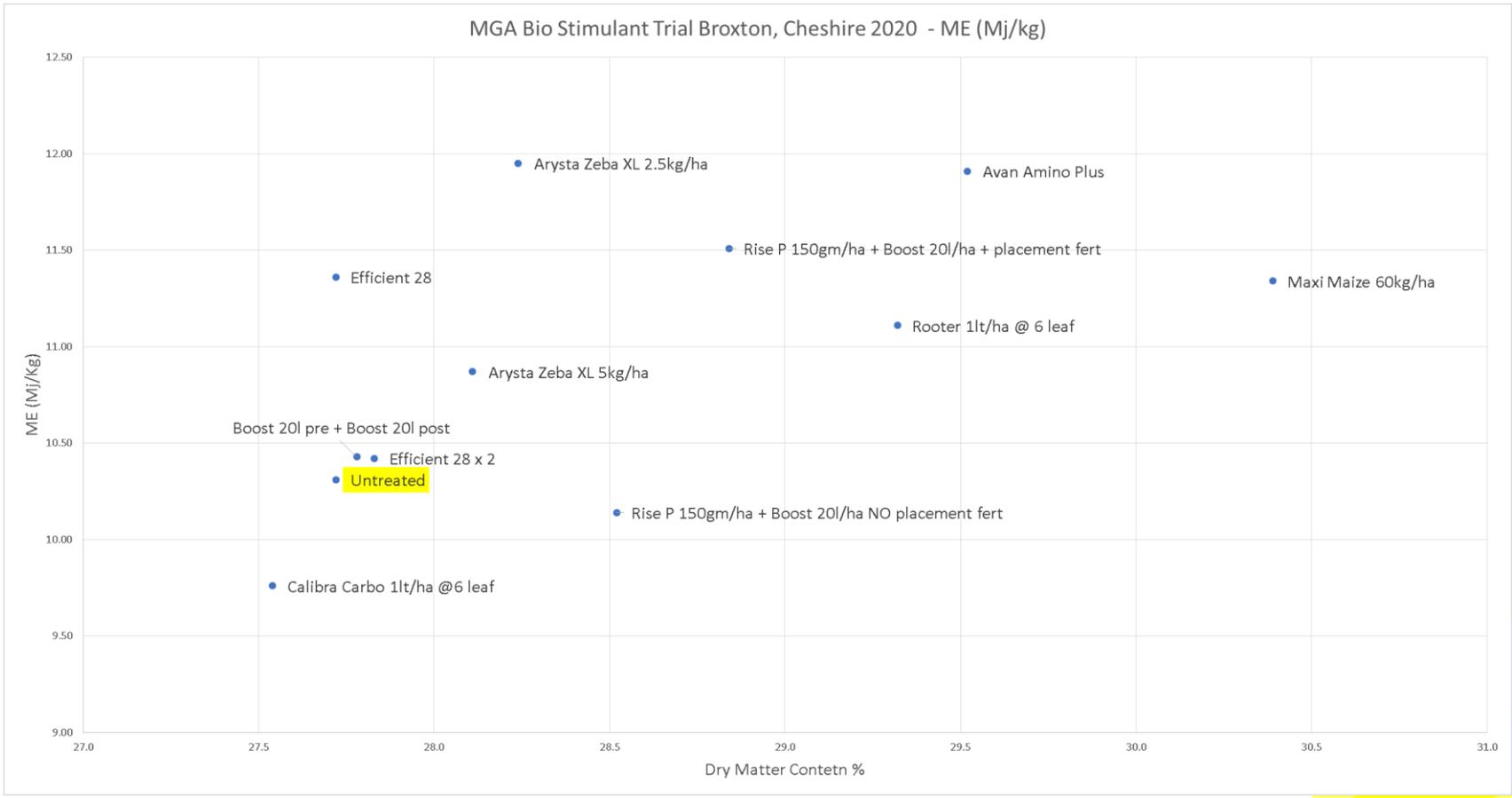
# MGA Plant Biostims 2020 - Broxton



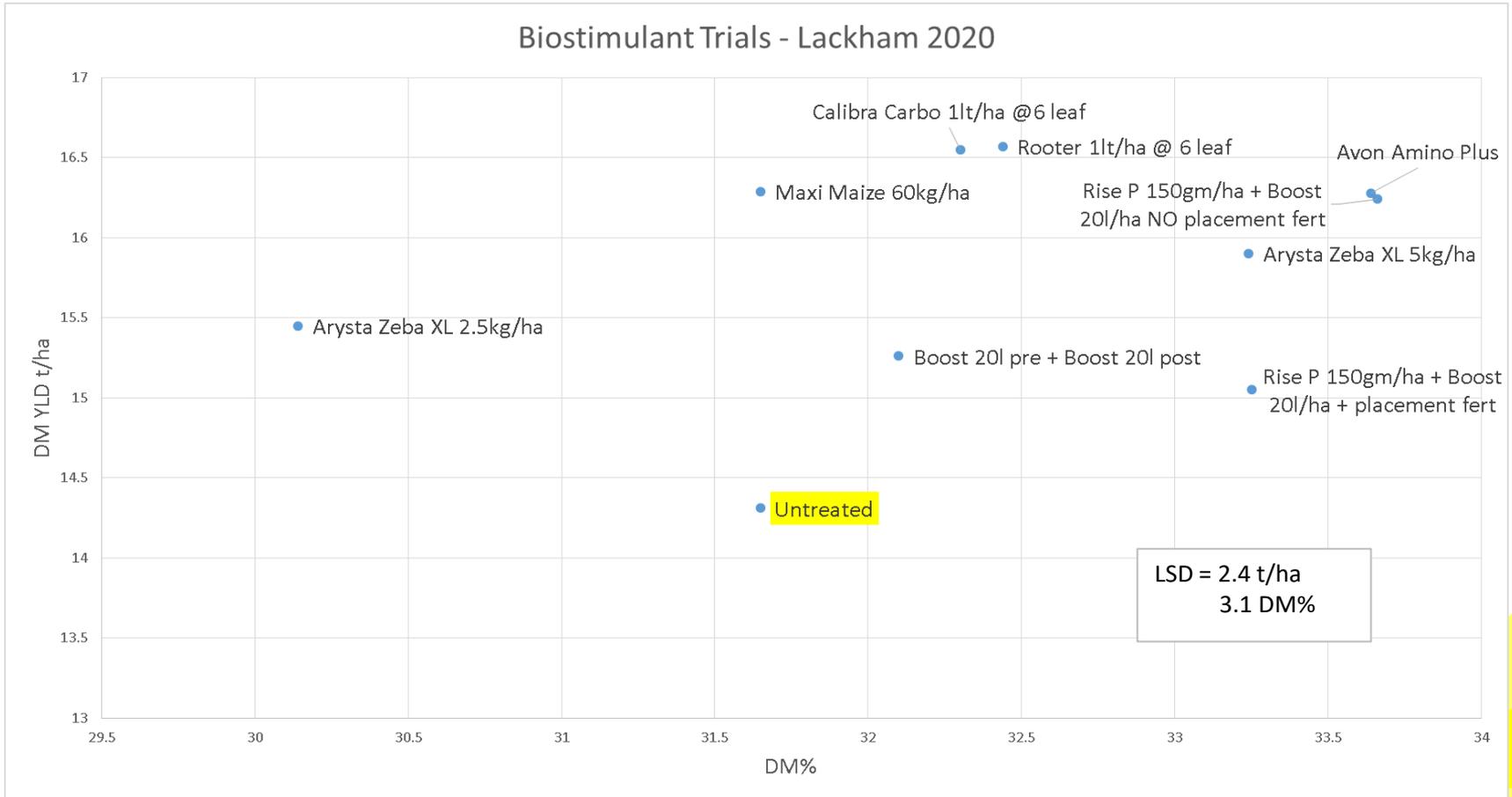
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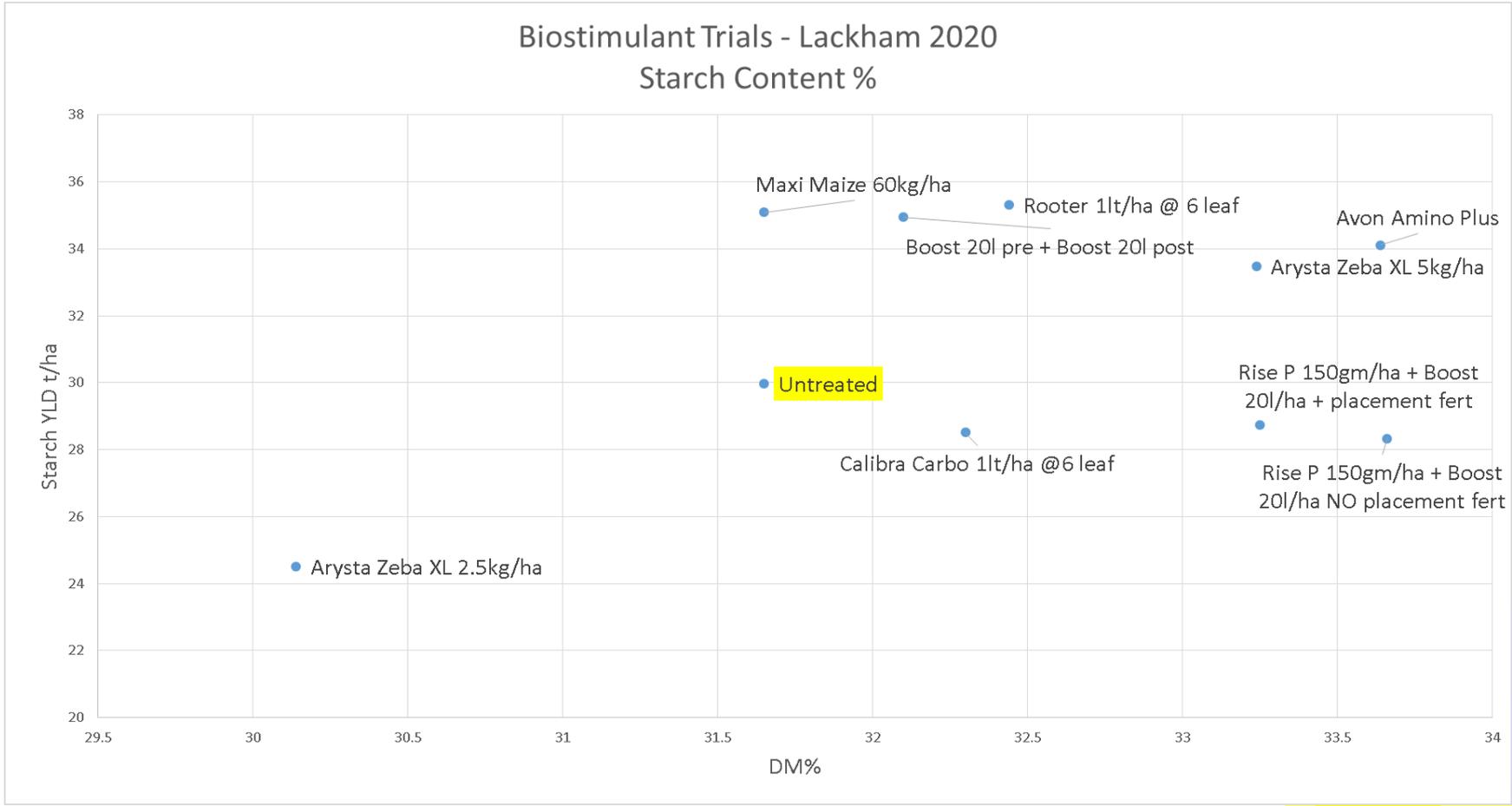
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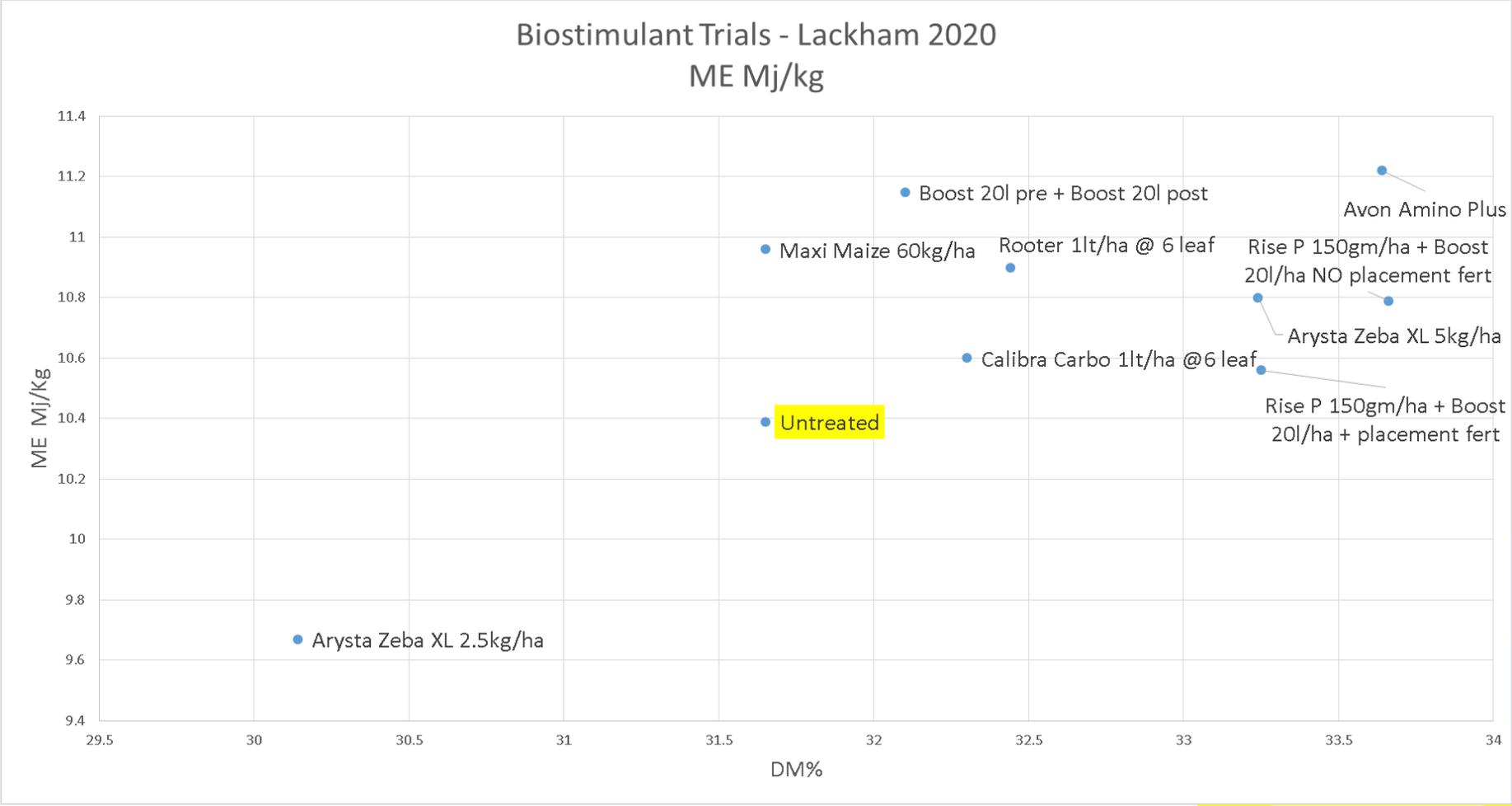
# MGA Plant Biostims 2020 - Lackham



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# MGA Plant Biostims 2020-2021



## take home message:

The use of biostim products will rarely show a visual difference in the field

The increased use of tissue testing can allow for targeting of nutrients in short supply during growth, this maybe due to shortfalls in the soil or due to the rapid growth of maize in June.

The silage quality of maize treated with Biostims will often be improved.