

# Elatus™ Era

Technical background for use in  
field beans and combining peas

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**syngenta**®

# The need for control of Chocolate spot and Rust in field beans

## Chocolate spot (*Botrytis fabae*)

- Common problem in beans
- Can cause up to 50% yield loss
- Favored by cool wet conditions,
- Typically, from May onwards
- Winter field beans most susceptible
- Most common in early drilled crops



## Bean rust (*Uromyces viciae-fabae*)

- Very common in field beans
- Can cause up to 70% yield loss
- Favoured by warm weather, hot days cool humid nights
- Typically, from June onwards



# New claims for ELATUS Era outside of cereals, rates of use

Contains: 75 g/l benzovindiflupyr (Solatenol ) + 150 g/l prothioconazole

Crop/s	Max dose/ha	Max No. treatments/crop	Latest time of application	Aquatic buffer zone
Field beans and combining peas	0.66 l/ha	1	Up to and including 20% of pods have reached typical length (GS72)	6 m
Linseed/flax	0.66 l/ha	1	Up to and including end of flowering (GS69)	6 m

- Other specific restrictions
  - The earliest time of application on pulses is GS51


# Label claims for ELATUS Era on legumes and linseed

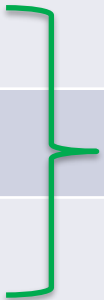
Crop and disease	Level of control
<b>Field Beans</b>	
<i>Uromyces sp</i> (Rust)	Control
<i>Botrytis sp</i> (Chocolate spot)	Useful control
<b>Combining peas</b>	
<i>Ascochyta pisi</i>	Useful control
<i>Uromyces sp</i> (Rust)	Moderate control
<b>Linseed/flax</b>	
<i>Mycosphaerella linicola</i>	Moderate control
<i>Golovinomyces orontii</i> (Powdery mildew)	Moderate control

- Dose rate for all these crops is 0.66 l/ha
- Other specific restrictions
  - The earliest time of application on pulses is GS51

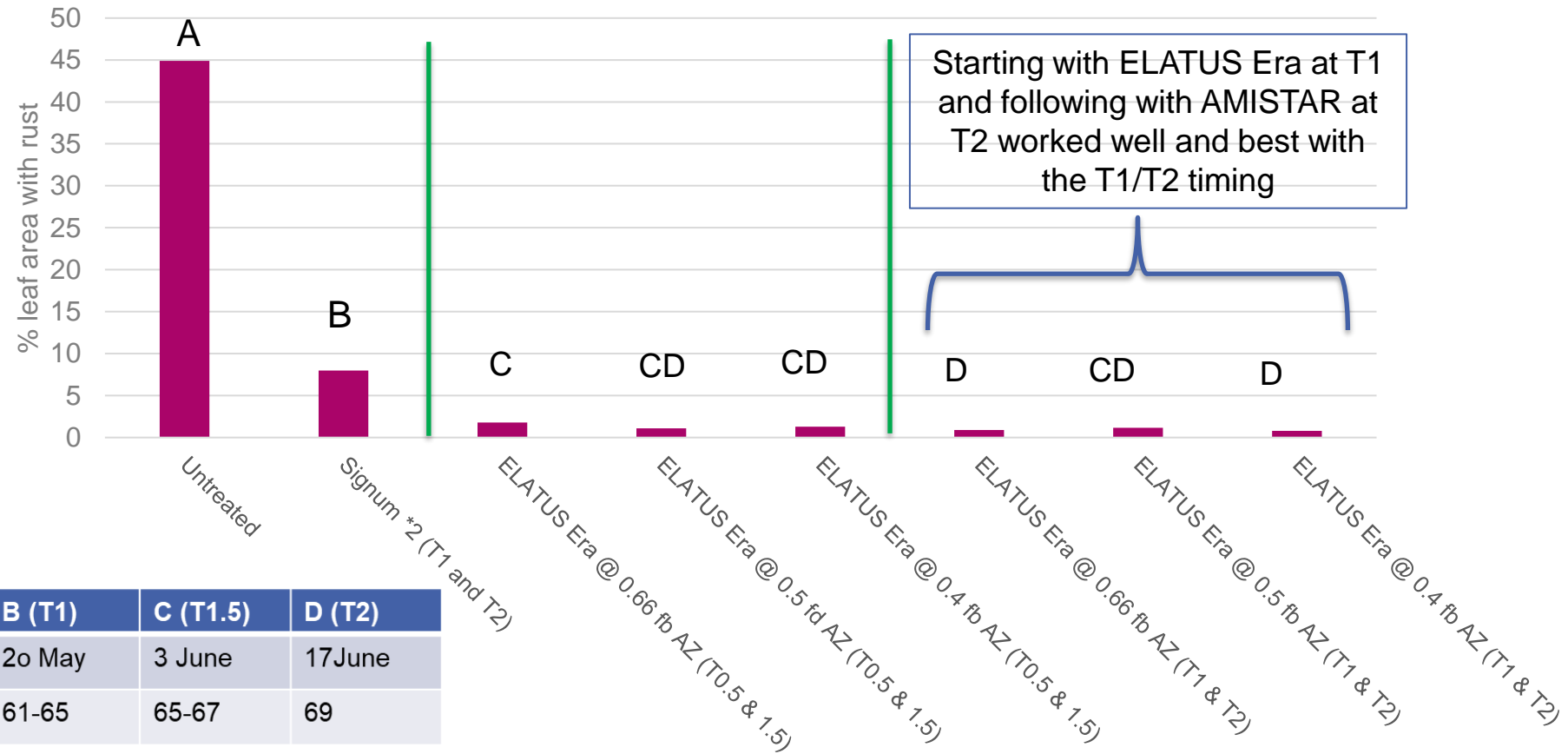
# Testing application timing and dose rate in the 2020 season with PGRO and in-house

Treatment	Dose rate/ha	Time of application
Untreated		
Signum fb Signum	0.75 kg	T1 + T2
ELATUS Era fb AMISTAR	0.66 lt 0.75 lt	T 0.5 T 1.5
ELATUS Era fb AMISTAR	0.5 lt 0.75 lt	T 0.5 T 1.5
ELATUS Era fb AMISTAR	0.4 lt 0.75 lt	T 0.5 T 1.5
ELATUS Era fb AMISTAR	0.66 lt 0.75 lt	T1 T2
ELATUS Era fb AMISTAR	0.5 lt 0.75 lt	T1 T2
ELATUS Era fb AMISTAR	0.4 lt 0.75 lt	T1 T2


Early T0.5


Late T1

# ELATUS Era, excellent control of bean rust in winter field beans, assessed 30 June

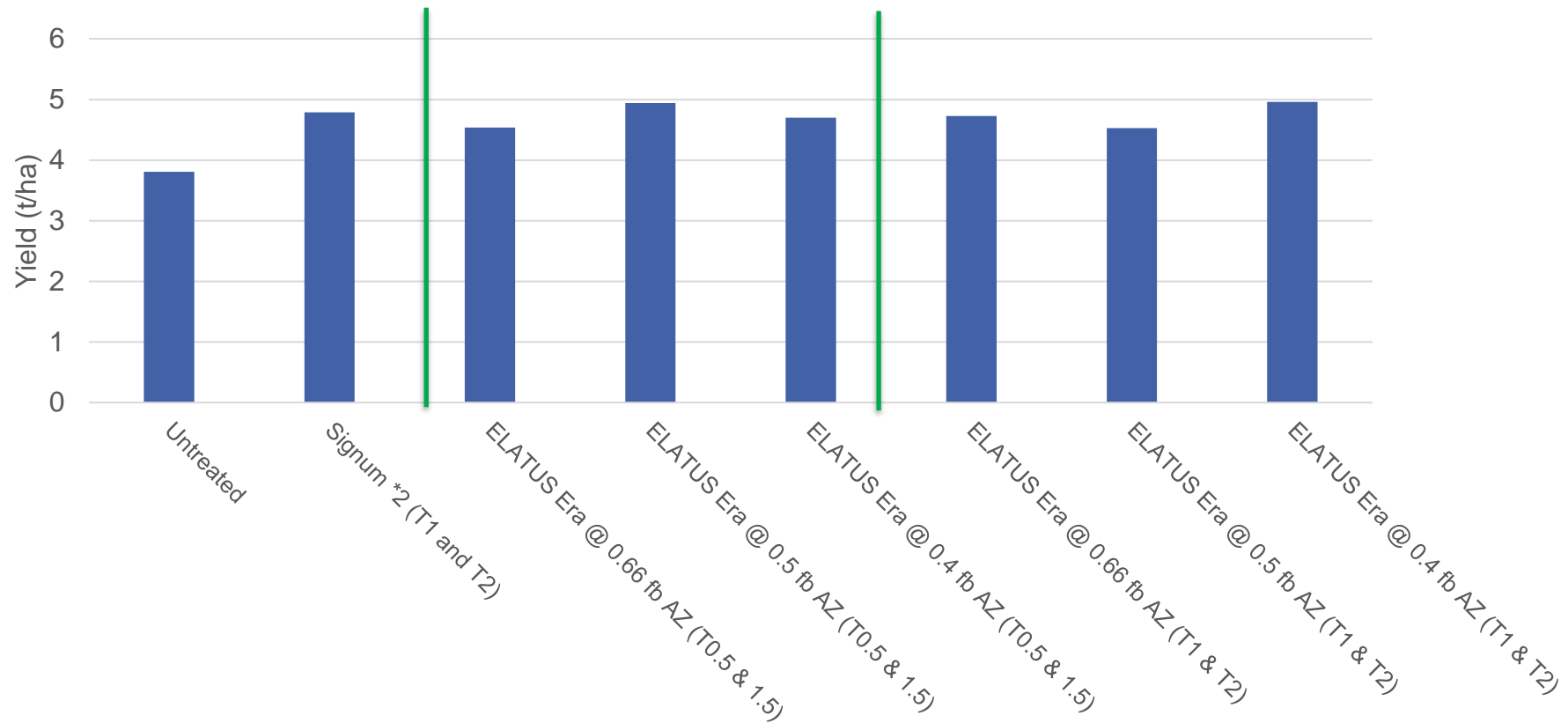


Timing	A (T 0.5)	B (T1)	C (T1.5)	D (T2)
Date	7 May	20 May	3 June	17 June
BBCH	59-60	61-65	65-67	69

Source: PGRO, Newborough site 2020

# Effect of treatments at Newborough site on harvested yield

All fungicide treatments yielded significantly more than untreated but no SD's between the fungicides



# In-house trial in winter beans – background and application timing

Location: Grindale, E Yorkshire

Variety: Wizard

Planting date: 25 Oct 2019

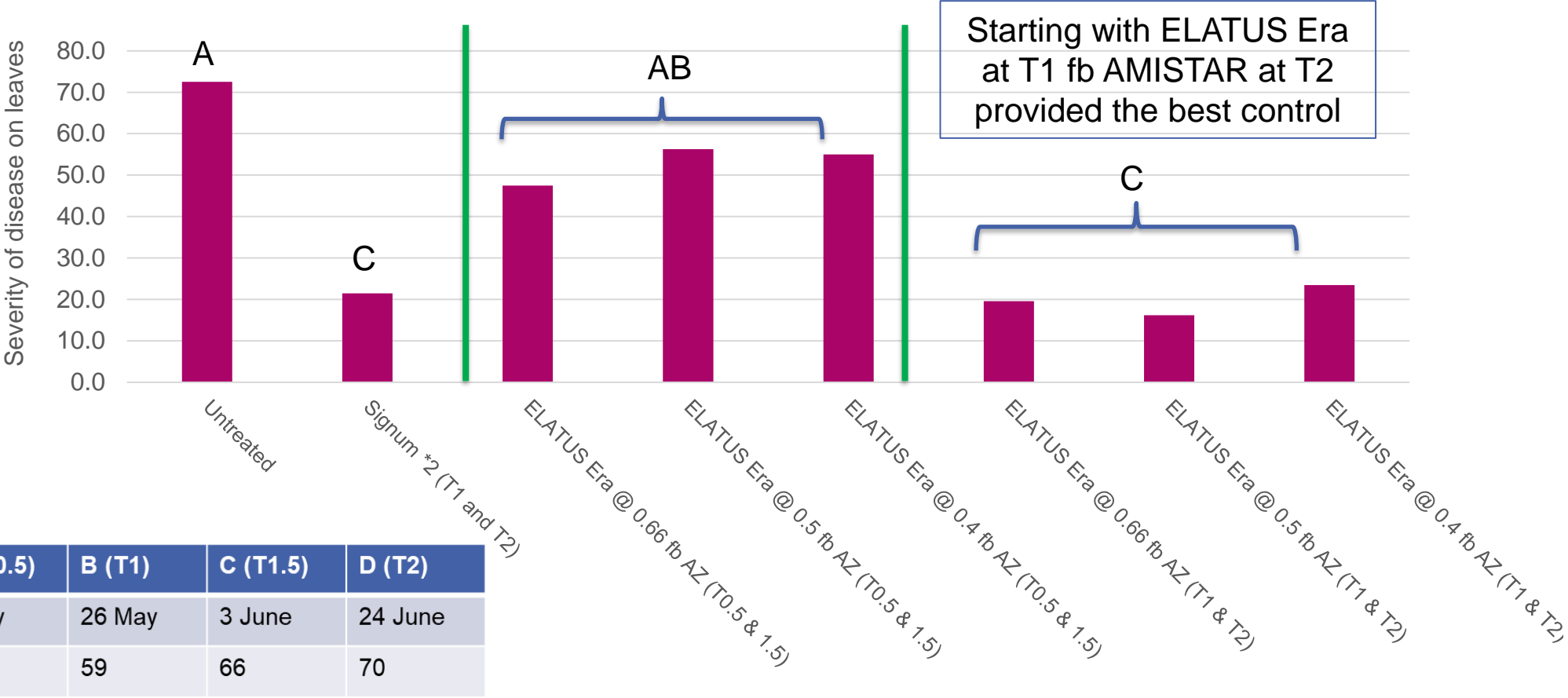
Timing	A (T 0.5)	B (T1)	C (T1.5)	D (T2)
Date	6 May	26 May	3 June	24 June
BBCH	51	59	66	70



Untreated at Grindale



# Clear result showing that the later timings gave better control of bean rust, assessed 11<sup>th</sup> August

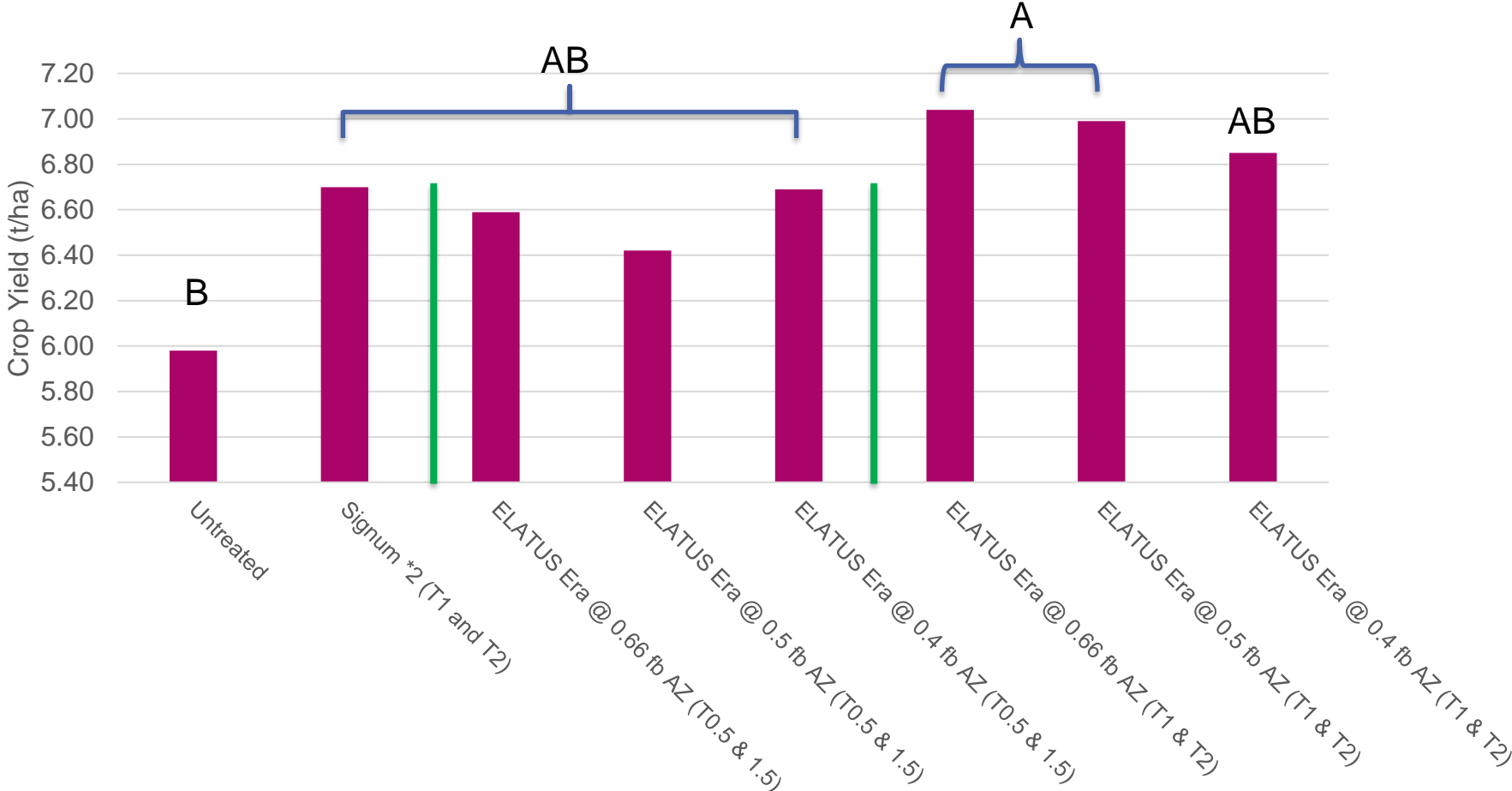


Timing	A (T 0.5)	B (T1)	C (T1.5)	D (T2)
Date	6 May	26 May	3 June	24 June
BBCH	51	59	66	70

Source: SYN\_GBACTF0132020



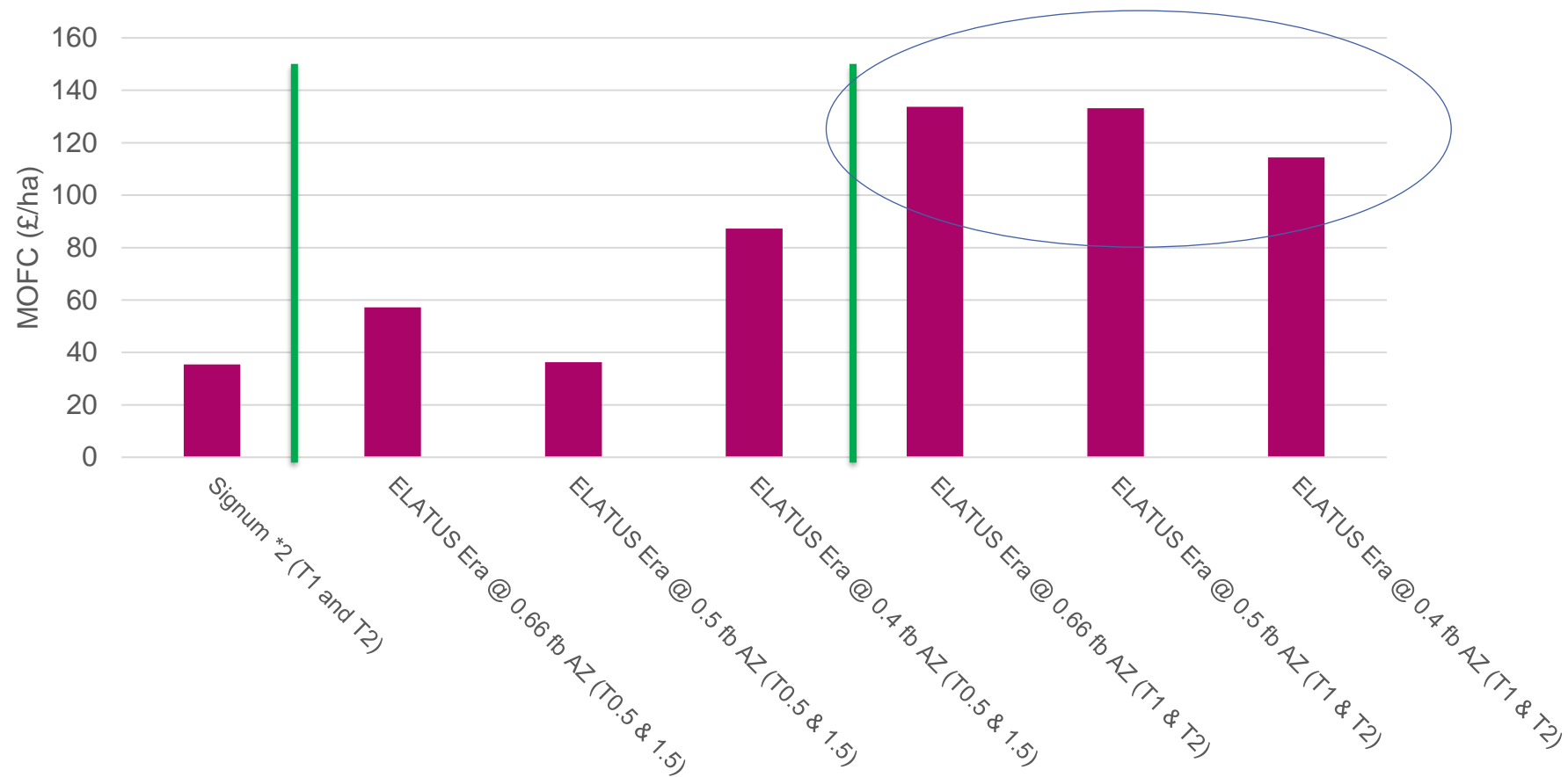
# ELATUS Era (T1) fb AMISTAR (T2) delivering the best uplift in crop yield, assessed 14 Sept 2020



Source: SYN\_GBACTF0132020



# ELATUS Era (T1) fb AMISTAR (T2) delivered the best margin over fungicide costs



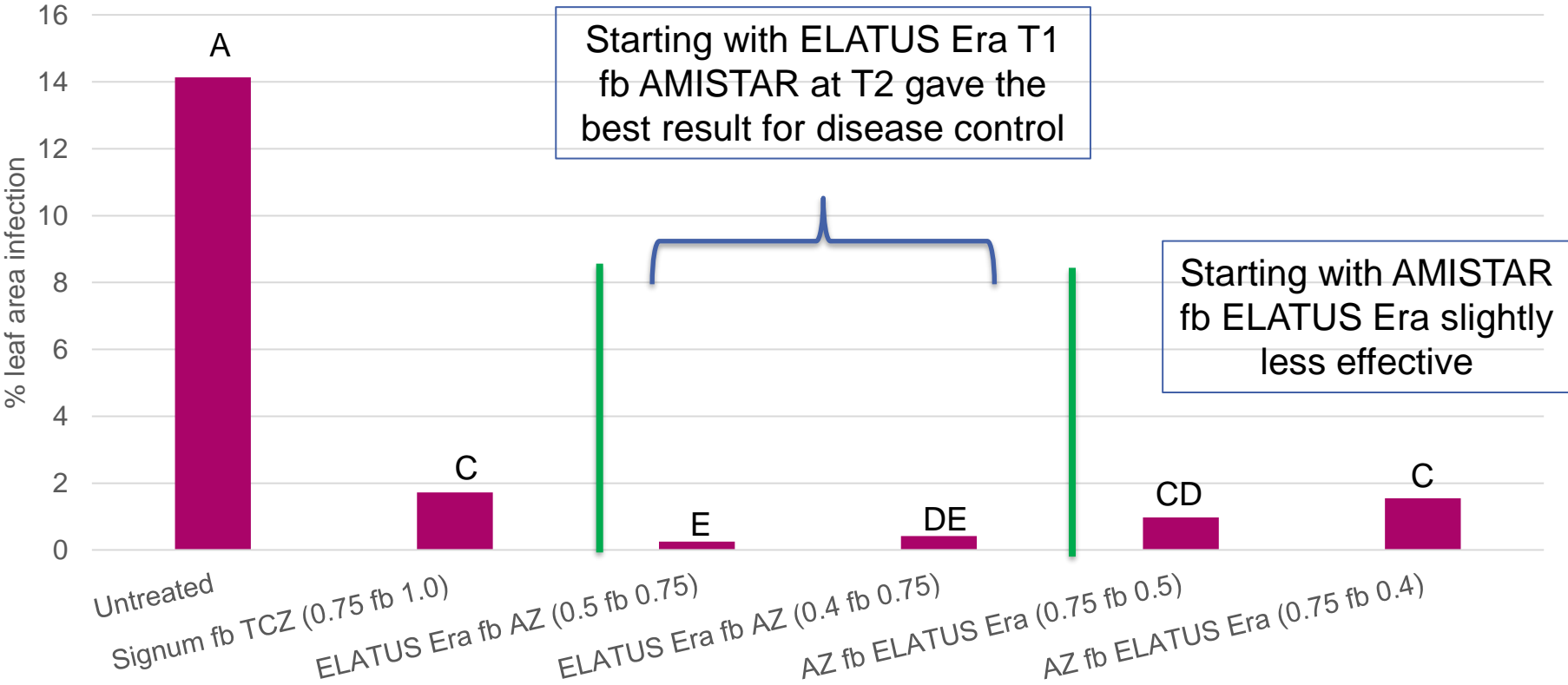
# ELATUS Era also delivered great results in spring field beans

- PGRO contract trial
- Flawborough, NG23 5JX
- Variety Lynx, drilled 28/03/2020
- Very low level of chocolate spot
- Poor crop establishment
- Clear effects of treatments on rust control
- Crop uneven, not possible to get reliable yield results



	GS	Dates
T1	60-63	8 June
T2	71-71	10 July

# ELATUS Era, outstanding control of rust (*Uromyces sp.*) in spring field beans, assessed 28 July



Source: PGRO Flawborough site 2020

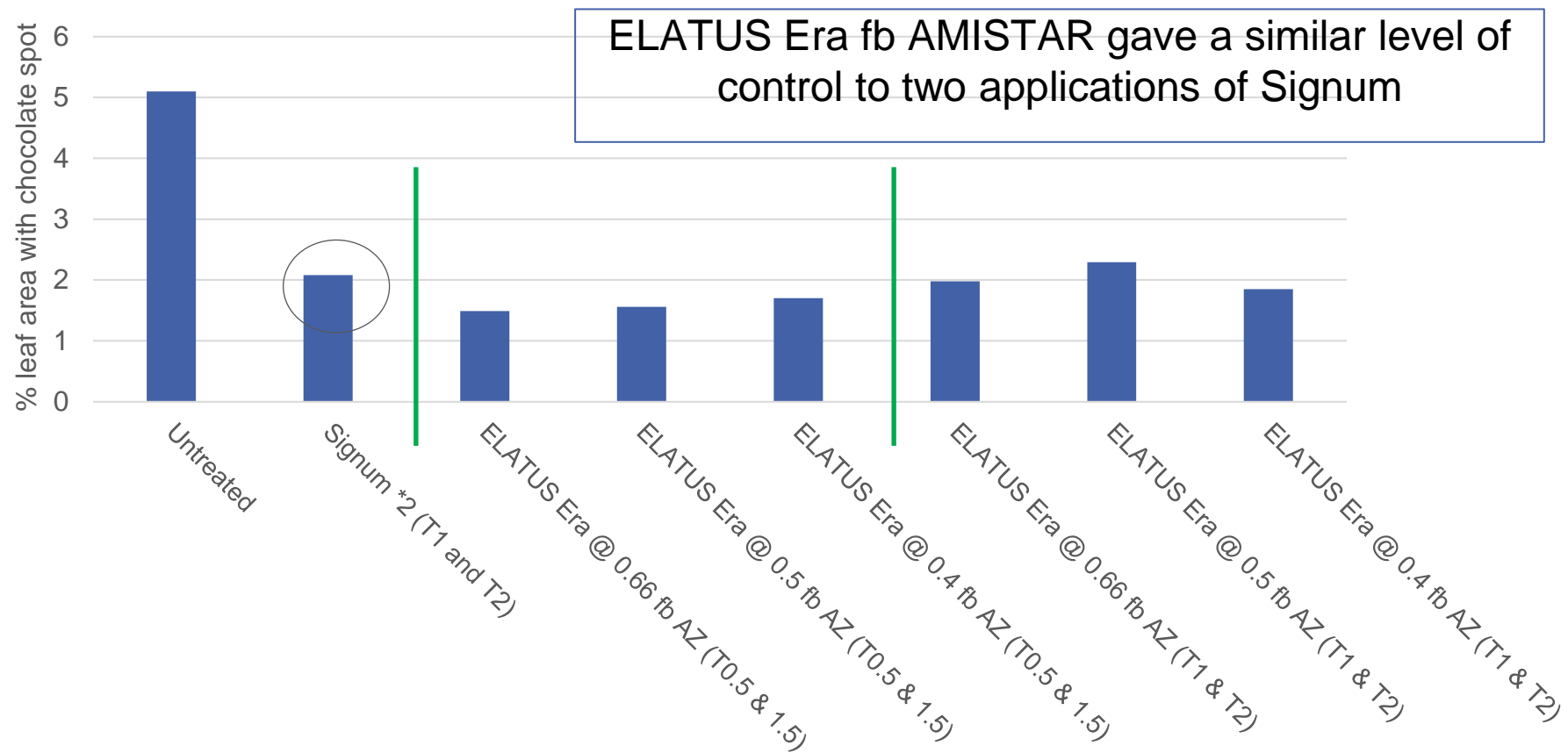


# Supporting data on control of chocolate spot in field beans with ELATUS Era

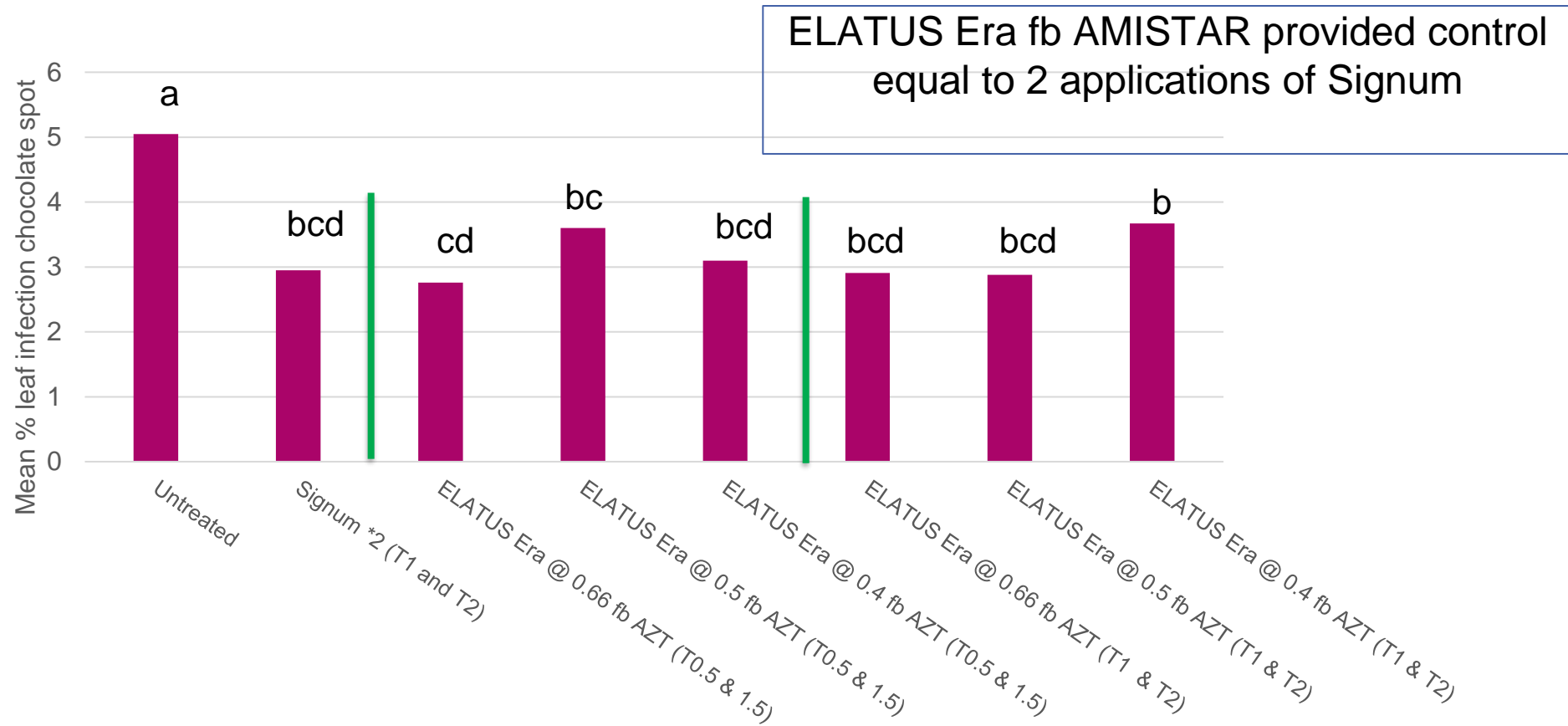


- Limited data from 2020
- Season not ideal for the development of chocolate spot
  
- Further data gathered from 2021 season

# ELATUS Era fb AMISTAR, control of chocolate spot in winter field beans at Newborough, assessed 30 June 2020

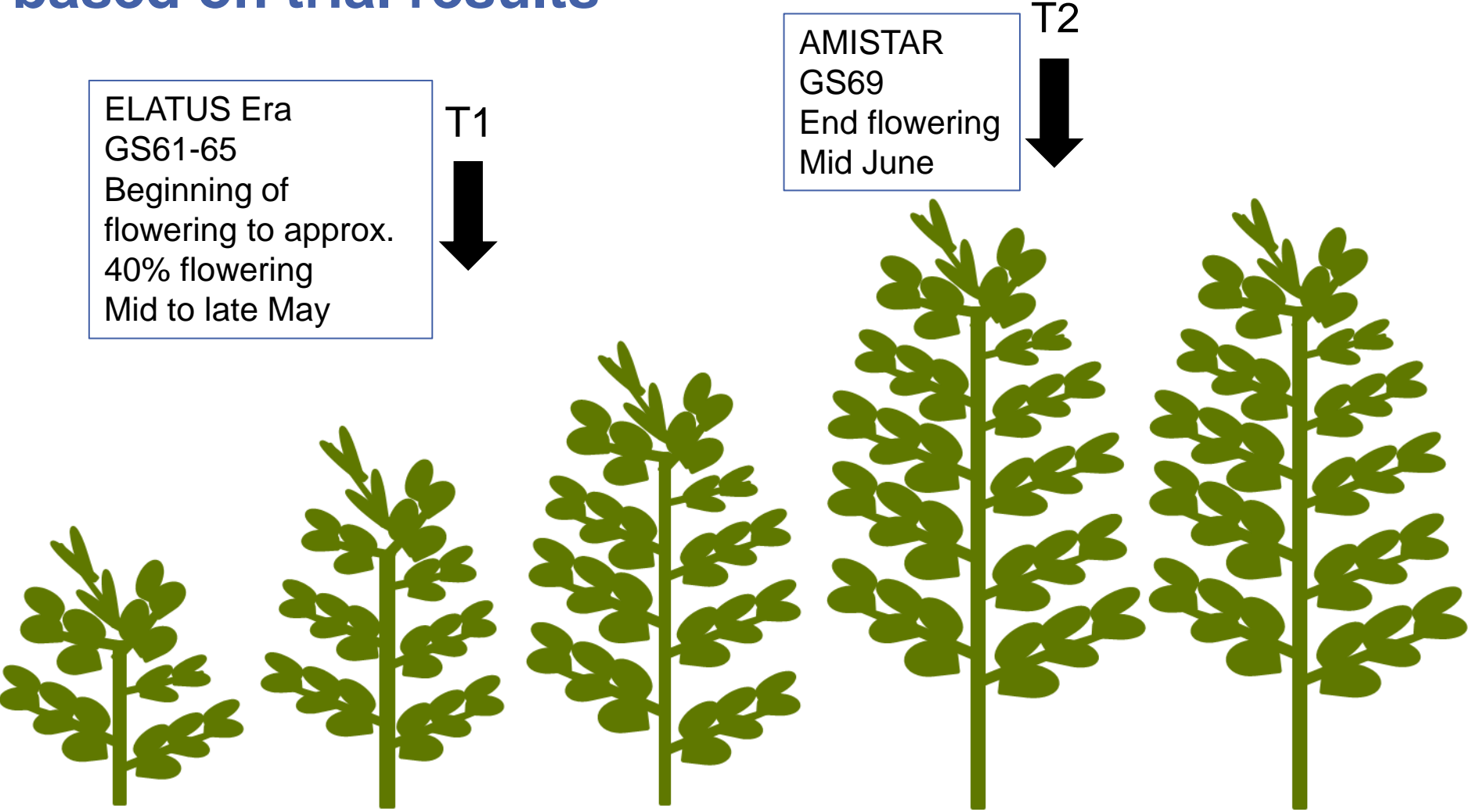


# ELATUS Era (T1) fb AMISTAR (T2), control of chocolate spot in winter beans at Branston, assessed 3<sup>rd</sup> July 2020





# Advised ELATUS Era and AMISTAR timing in winter field beans based on trial results



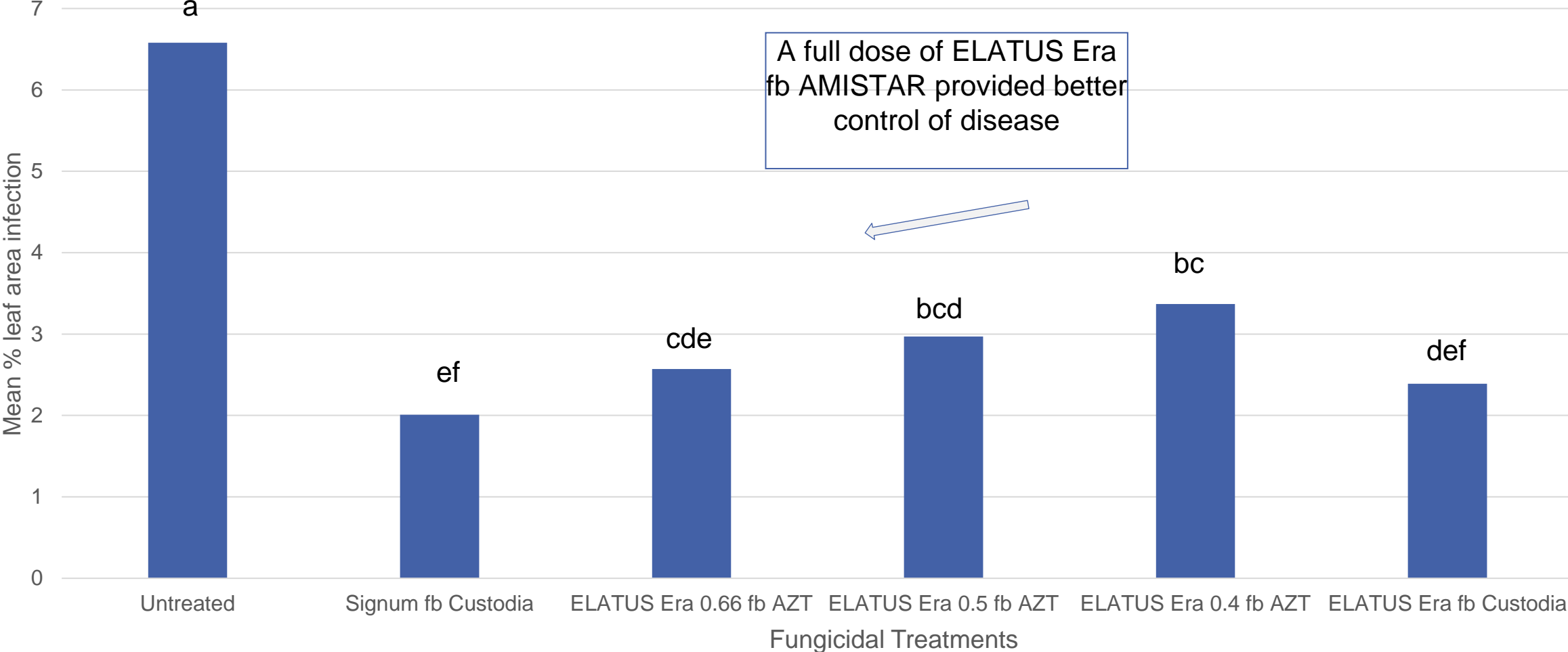
# Background on the PGRO field bean trial 2021

## Stubton

- Location: NG23 5DA
- Winter beans: (*Vicia faba*), Tundra
- Drilled: 23 November 2020
  
- Applications:
  - T1 Full flower/1<sup>st</sup> pod GS61-63, 4 June
  - T2 Flower declining GS72-75, 2 July
  
- Assessed:
  - Plant counts 7 April
  - Disease/s, 4 June, 2 July, 20 July & 29 July
  
- Harvest: 19 August



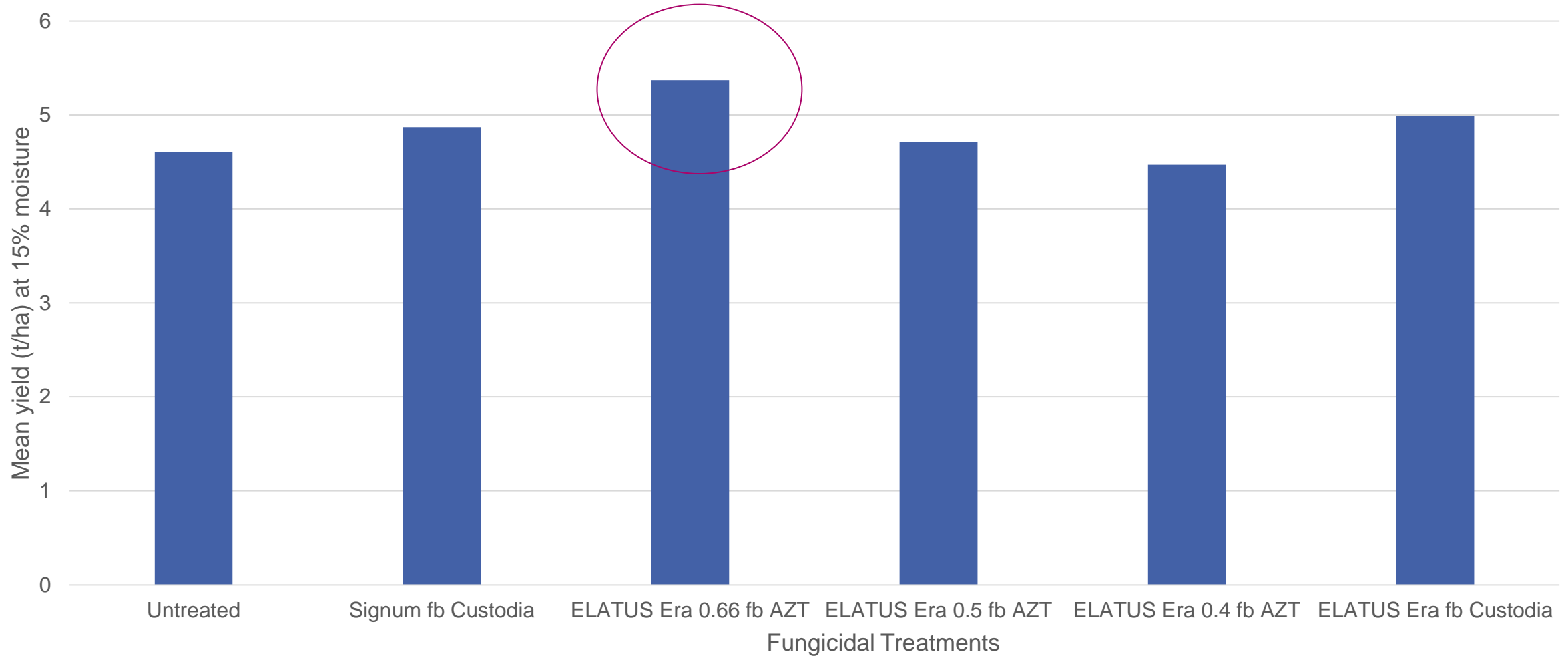
# Control of chocolate spot at Stubton, assessed on 20 July 2021



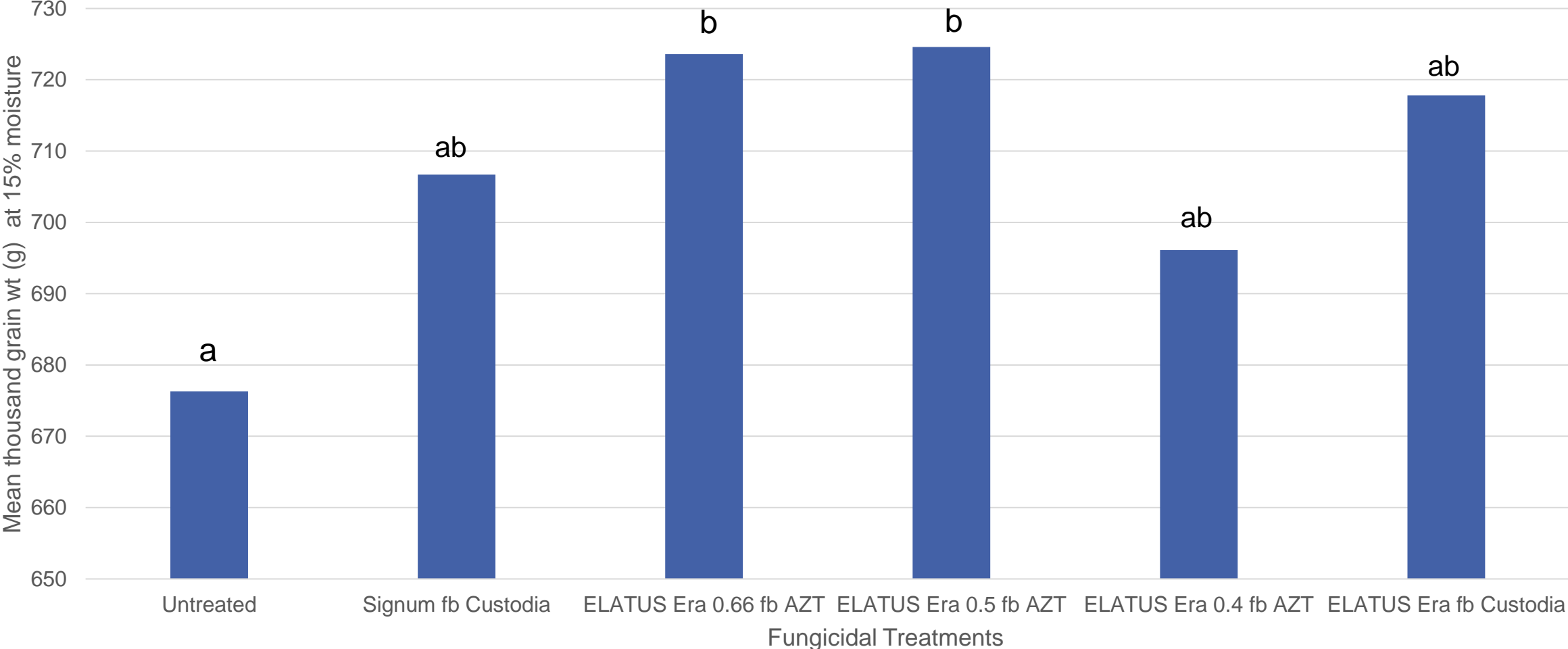
Source PGRO; PC27-21



# There were no significant effects of fungicides on yield at the Stubton site assessed August 2021



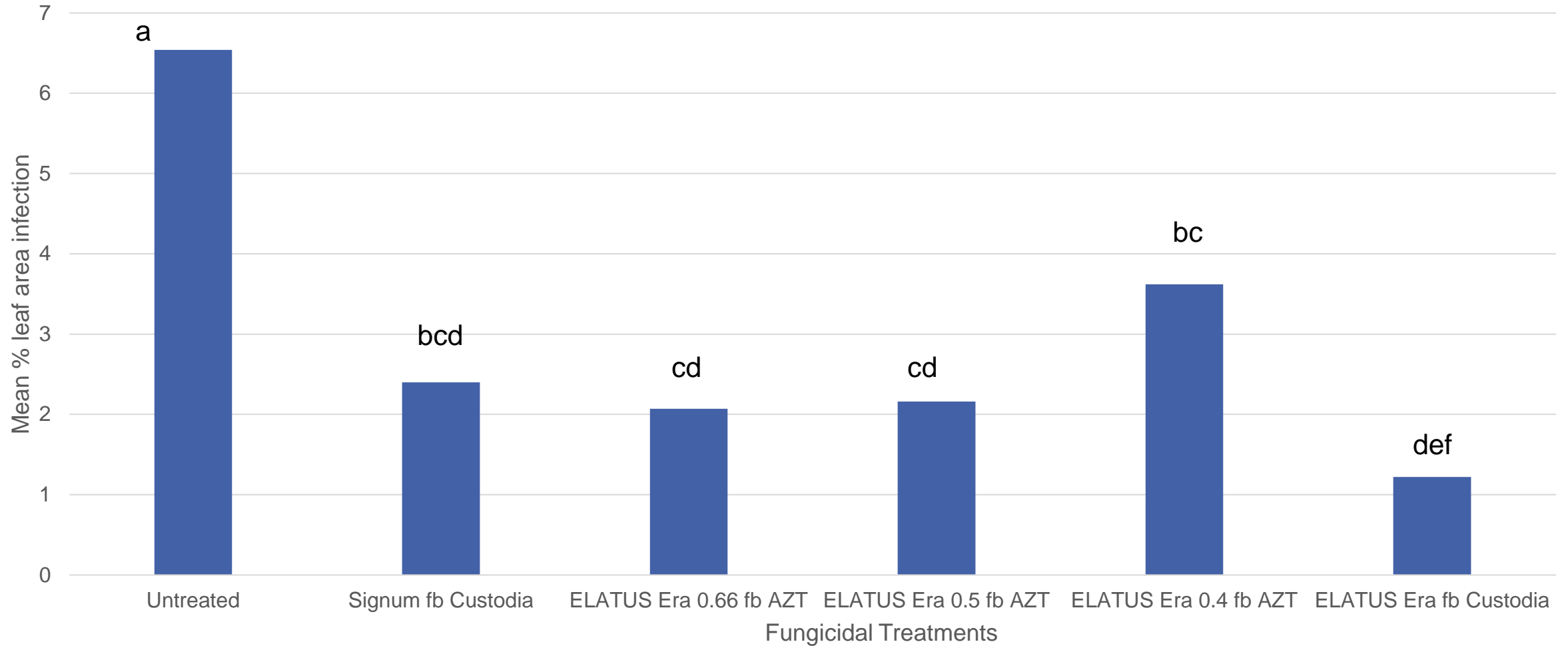
# However, there were effects on thousand grain weight at the Stubton site



Source PGRO; PC27-21



# Additional data on *Stemphylium* from Stubton, assessed on 20 July 2021



# Syngenta trial site Stockton in 2021



Location: Stockton, Southam, Warwickshire

Variety: Tundra

Drilled: 1<sup>st</sup> week November 2020

Soil: clay loam

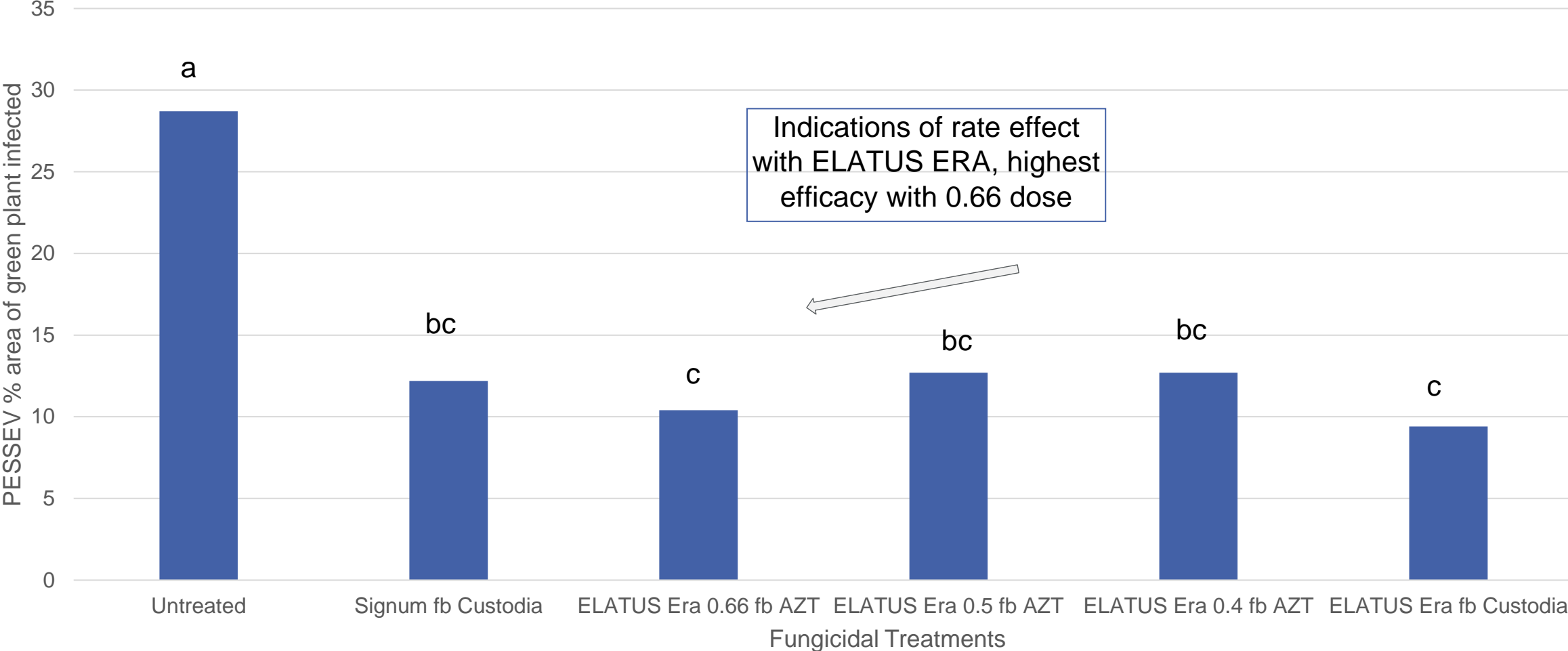
Application A : 12/05/21 (GS59/61)

Application B: 15/06/21 (GS69)

Assessed: 12/07/21

Harvested: 01/09/21

# ELATUS Era fb AMISTAR at full dose gave good control of chocolate spot at the Stockton trial site





# Syngenta trial site Rougham in 2021



Location: Rougham, Suffolk

Variety: Bumble

Drilled: 20/10/20

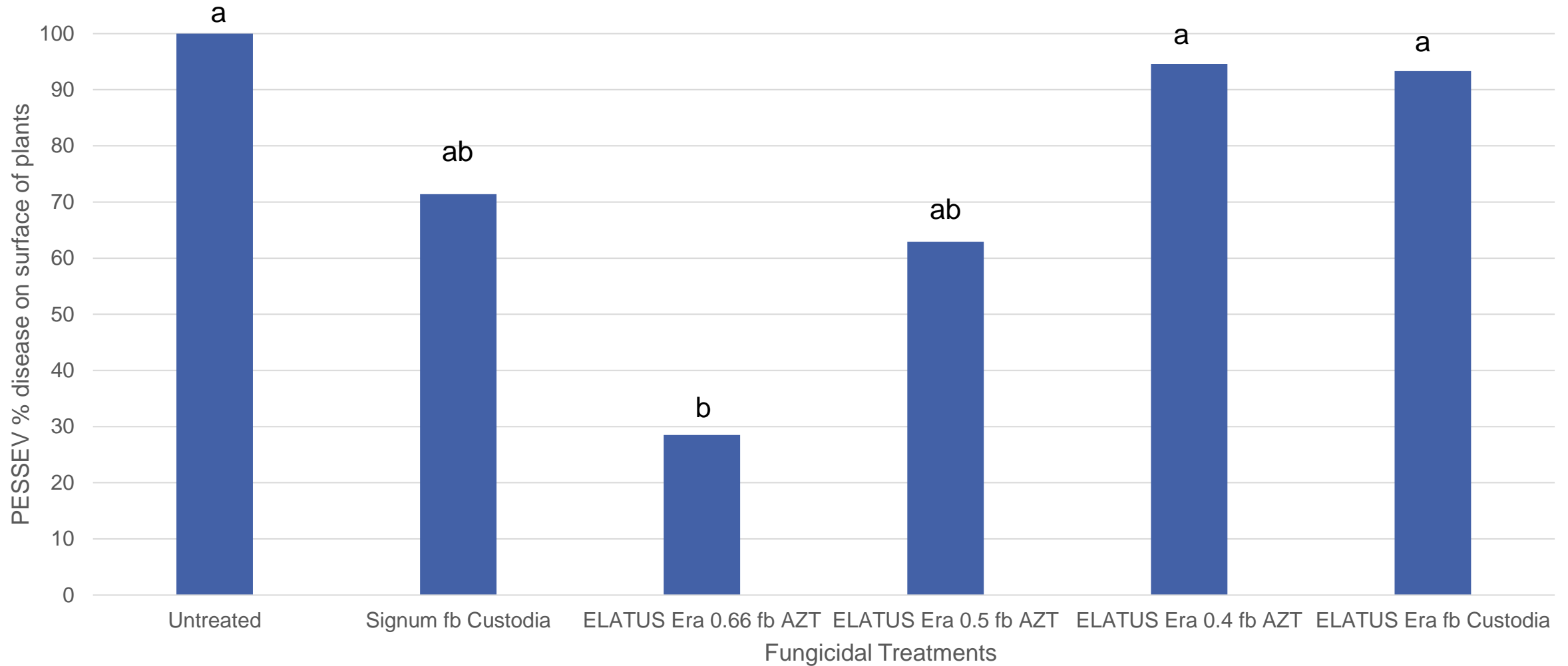
Application A: 20/05/21 (GS61-65)

Application B: 15/06/21 (GS69-75)

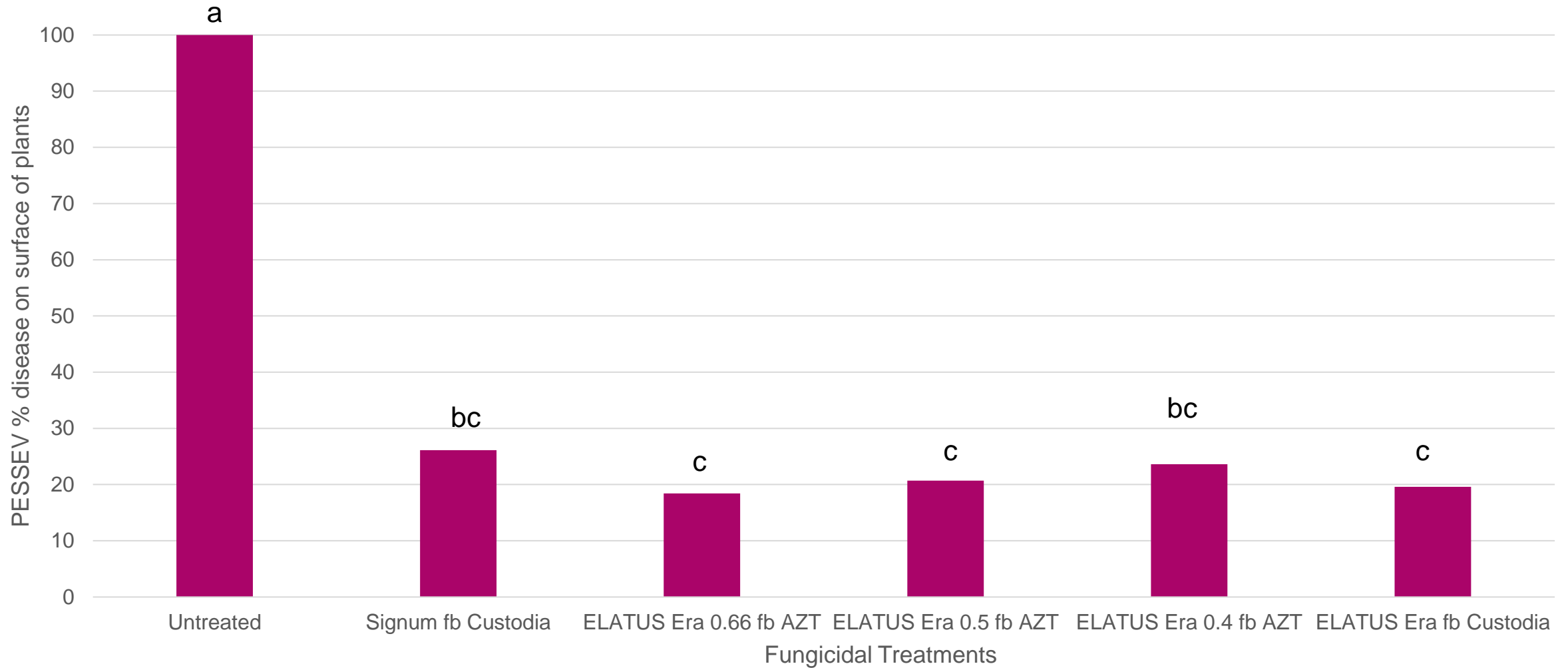
Assessed for disease: 15/07/21

Harvested: 03/09/21

# A full dose of ELATUS Era fb AMISTAR gave good control of chocolate spot in the middle canopy at the Rougham trial site



# A full dose of ELATUS Era fb AMISTAR gave excellent control of chocolate spot in the upper canopy at the Rougham trial site



# Some examples of plot pictures taken at the Rougham trial site



## Key to pictures

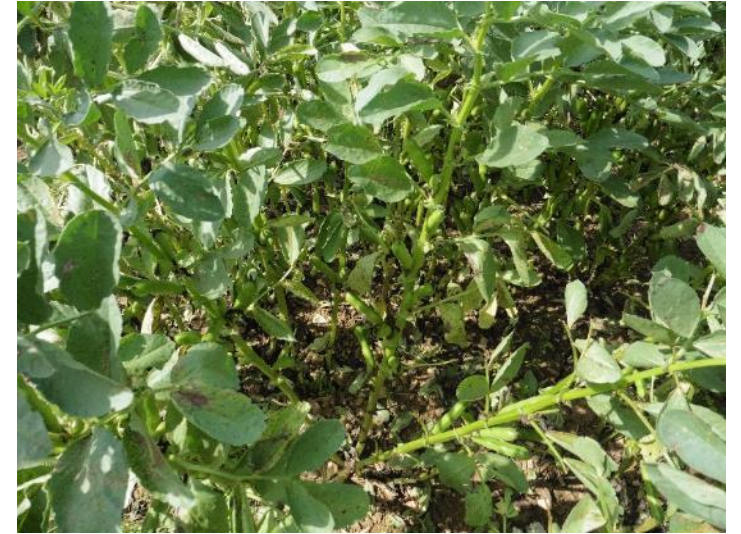
Top left: Untreated

Bottom left: Signum fb Custodia

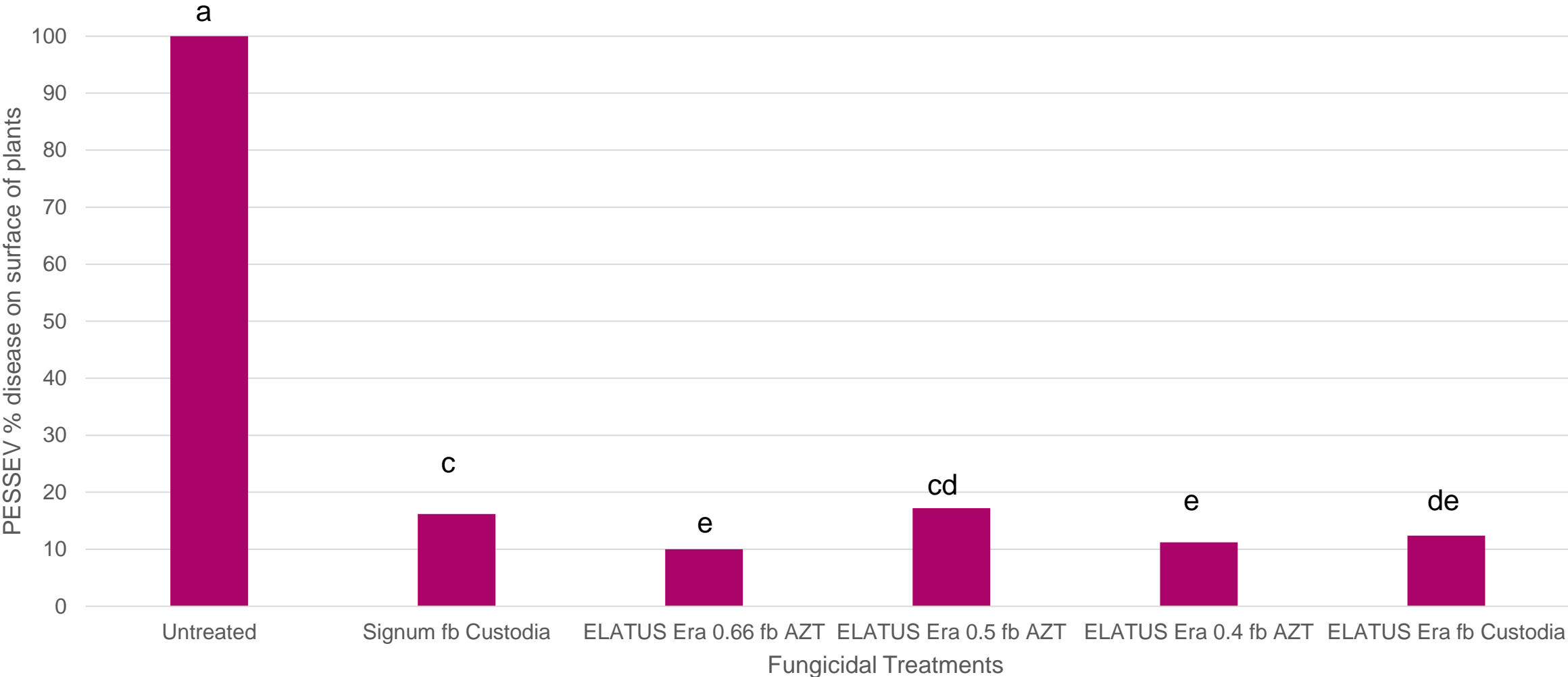
Bottom middle: ELATUS Era 0.6 fb AMISTAR

Top right: ELATUS Era 0.5 fb AMISTAR

Bottom right: ELATUS Era fb Custodia



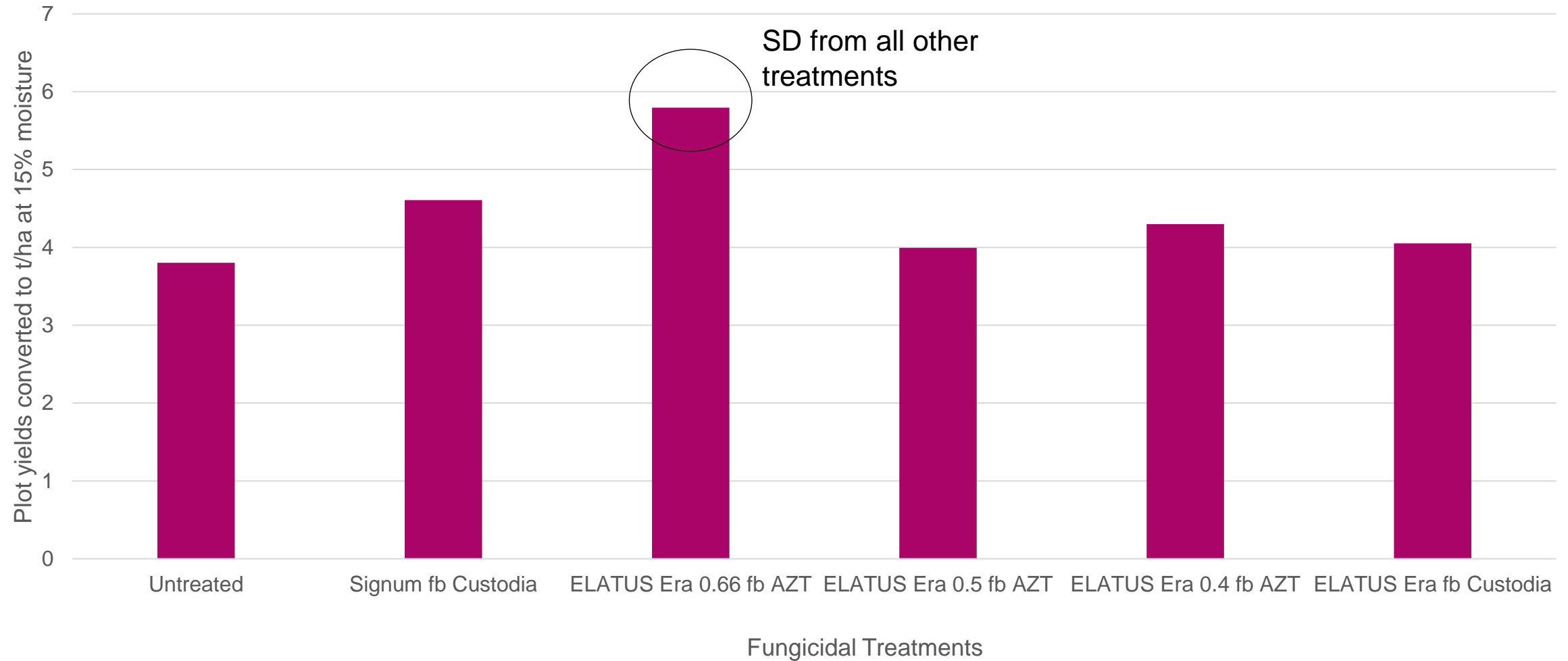
# ELATUS Era fb AMISTAR also gave excellent control of bean rust in the upper canopy at the Rougham site



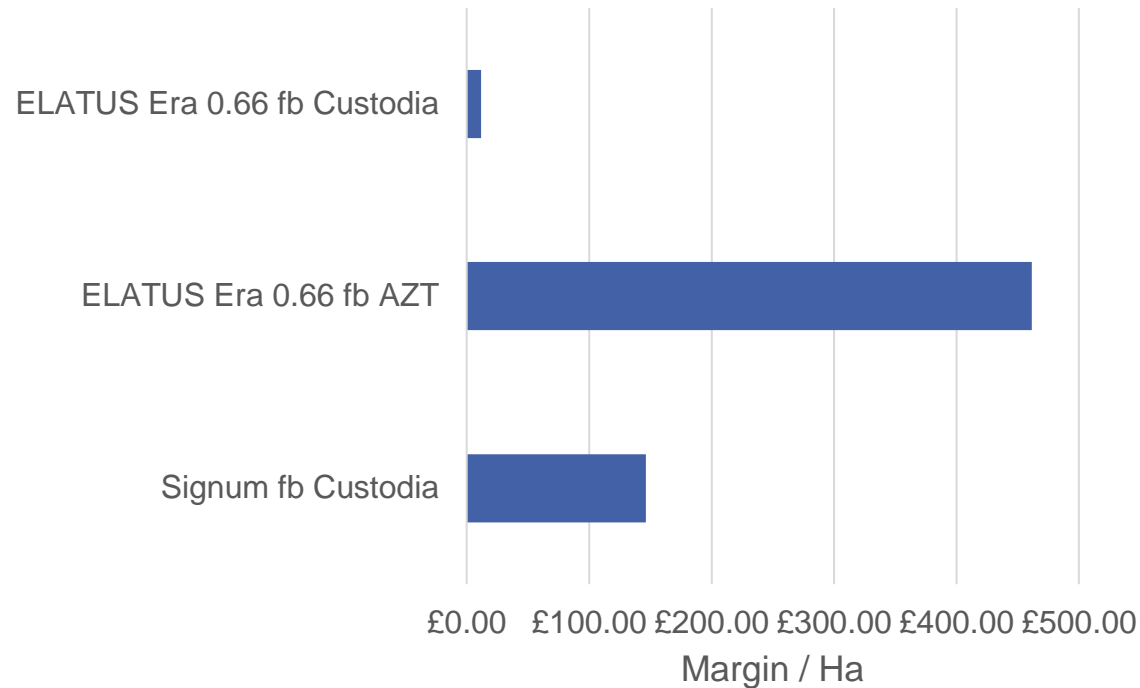
Source Syngenta: GBBUTF1752021



# The highest dose of ELATUS Era fb AMISTAR gave the most yield from trial plots at the Rougham site 2021



# Margin over fungicide costs at the Rougham site



Assumptions based on feedback for 2021

- Signum £32.00 / Ha
- Custodia £23.00 / Ha
- ELATUS Era £28.00 / Ha
- AMISTAR £9.00 / Ha
  
- Value of feed beans £250 / t

# First season of UK trials in combining peas



Current label in combining peas covers:

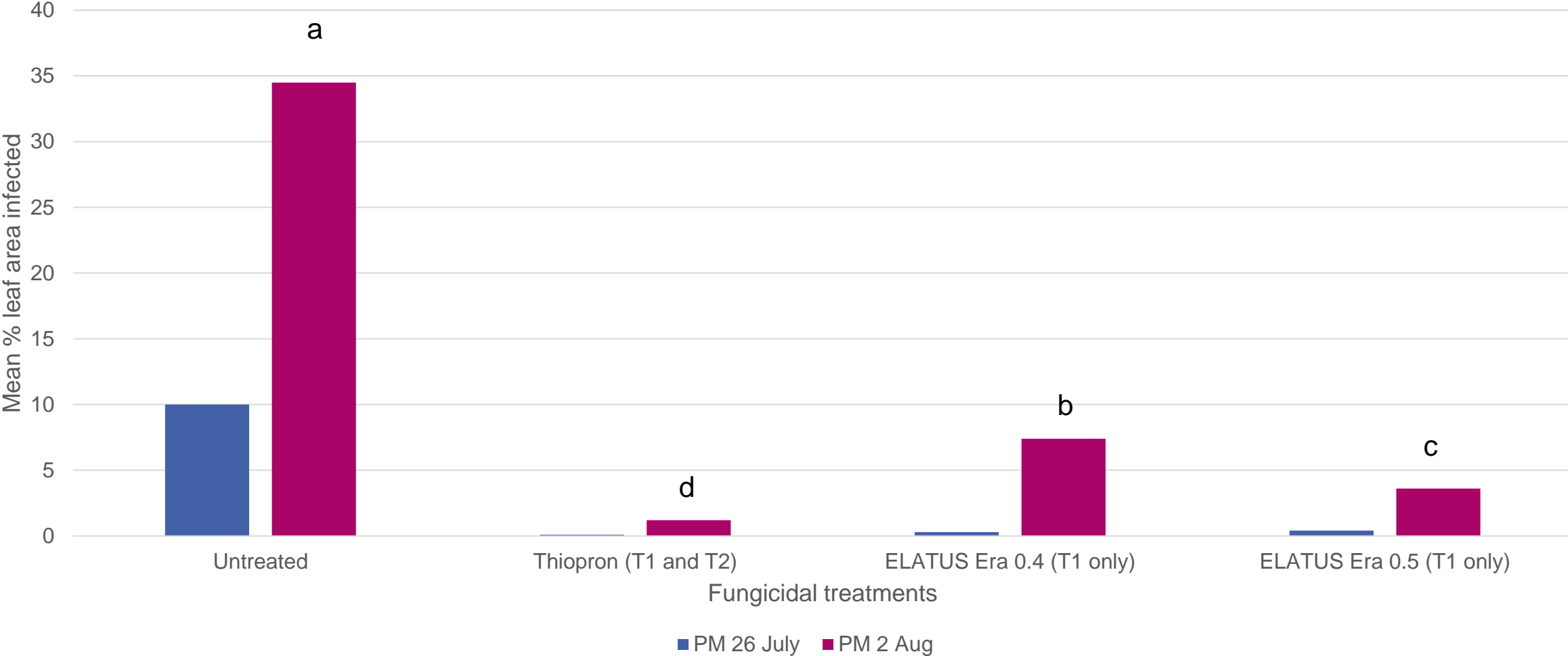
- *Ascochyta pisi*
- *Uromyces sp* (Rust)
- Not currently a big issue
- First trials to test activity against powdery mildew

Treatments:

- Untreated
- Thiopron (sulphur) 6.0 l/ha \*2
- ELATUS Era 0.4 l/ha \*1
- ELATUS Era 0.5 l/ha \*1



# ELATUS ERA delivers excellent one-shot control of powdery mildew in combining peas

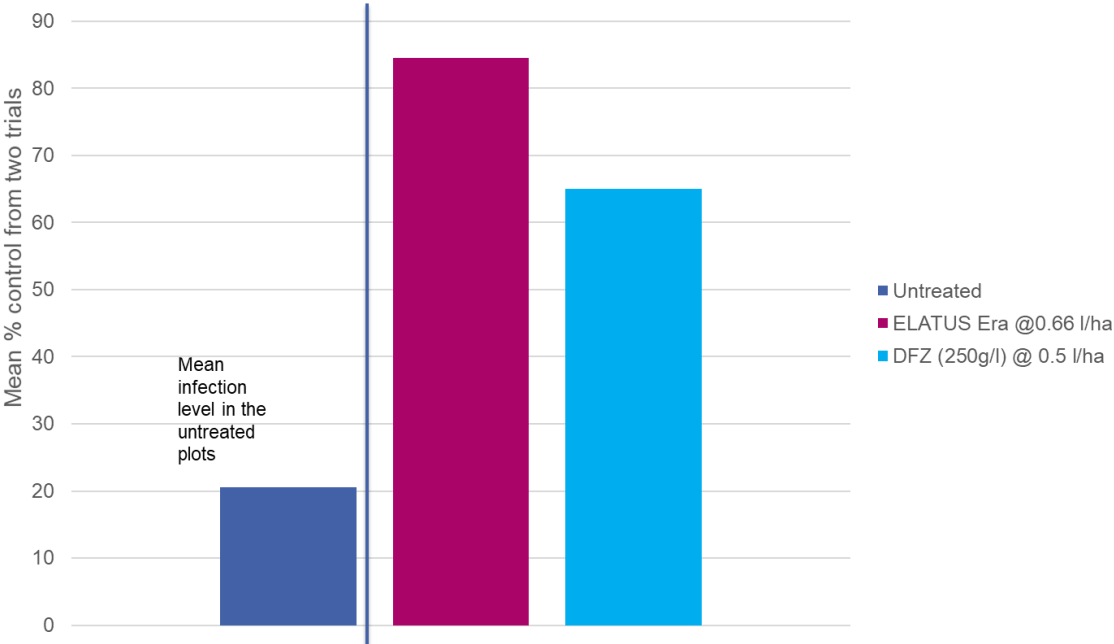


Source: PGRO, PC:29-21

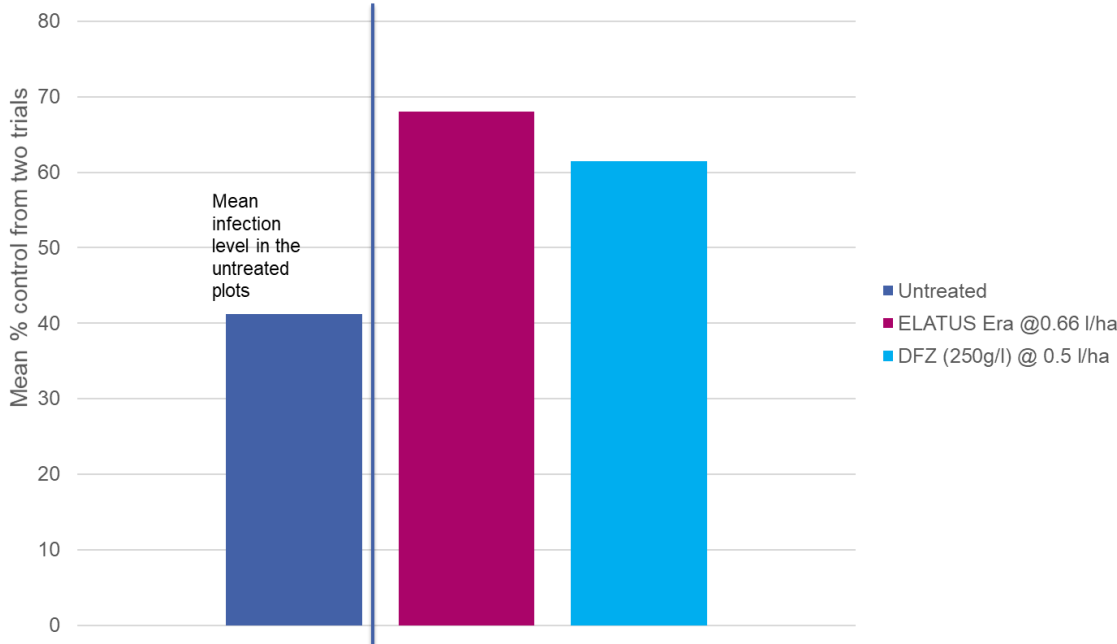


# ELATUS Era also offers activity against pathogens of linseed

Mean % control of *Septoria linicola* in Linseed, French Trials in the Maritime zone



Mean % control of *Golovinomyces orontii* in Linseed, French Trials in the Maritime zone



# ELATUS Era - Summary



- Outstanding new product for control of bean rust
- Excellent efficacy seen in winter and spring beans
- Good control of chocolate spot certainly comparable to the market leader – Signum
- Better value for money than the market leader against rust and chocolate spot
- Ideal to partner with AMISTAR in a two-spray programme in field beans
- Promising first results against powdery mildew in combining peas
- Flexible product can be used effectively in a number of crops, including linseed
- Good value for money



# ELATUS™ Era

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