



Veritas[®]

True broad spectrum
Performance.

Technical overview Cereals

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Veritas Overview

- Azoxystrobin 120 g/L + Tebuconazole 200 g/L
- High performance broad spectrum fungicide
- For use in Wheat and Barley.
 - Also for use in Chickpeas*, Lentils*, Peanuts, Adzuki Beans*, Navy Beans* and Mungbeans*
- Broad-spectrum
- Resistance management option
- Highly compatible SC formulation
- Excellent crop safety – extensively tested in Australia on multiple cereal and pulse varieties and situations



Available in 10L
pack only

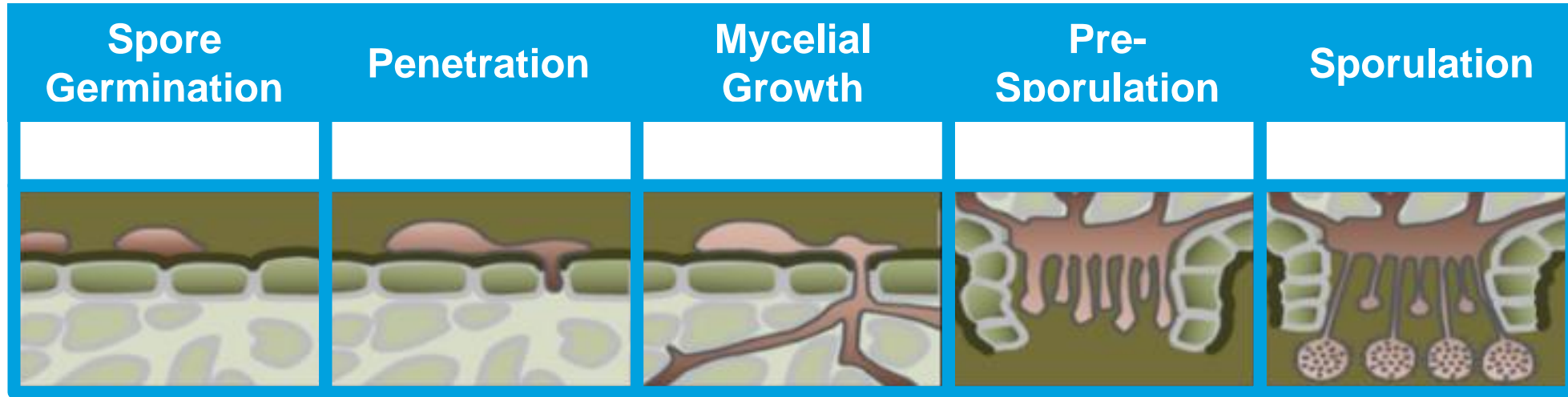
* Use in Chickpeas and Lentils allowed until 31st September 2017 under APVMA permit No: 81533

* Use in Adzuki Beans, Mungbeans and Navy Beans allowed until 30 November 2019 under APVMA permit No: 82104

Active Ingredients & Mode of Action

Parameter	Azoxystrobin	Tebuconazole
Concentration (g/L)	120	200
FRAC Group	11	3
Group common name	Strobilurin	DMI
MOA	Inhibitor of mitochondrial respiration	De-methylation inhibitors, ergosterol biosynthesis inhibitors
Effect on fungi	Disrupts energy production, particularly in germinating spores	Disrupts cell wall production and mycelial / hyphal development
Use pattern	Systemic protectant	Systemic protectant
Systemicity	Translaminar, systemic	Translaminar, systemic (acropetal)
Residual activity	Up to 6 weeks	Up to 4 weeks

Veritas[®] has activity across multiple disease growth stages



Fungicide impact on disease development

Azoxystrobin



Tebuconazole



Azoxystrobin + Tebuconazole (Veritas[®])



 **Highly Effective**

 **Little or no effect**



Veritas[®]

Winter Cereals

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Target Diseases

Wheat

- Stripe Rust
- Stem Rust
- Leaf Rust
- Yellow Spot
- Septoria Nodorum Blotch
- Septoria Tritici Blotch

Barley

- Leaf Rust
- Scald
- Net form of Net Blotch (NFNB)
- Powdery mildew
- Spot form of Net Blotch (SFNB)

Application rates & target diseases

Crop	Disease	Rate mL/ha
Wheat	Leaf Rust Yellow Spot Septoria Nodorum (Glume) Blotch Septoria Tritici Blotch Stem Rust Stripe Rust	315-630
Barley	Leaf Rust Net form of Net Blotch* Spot Form of Net Blotch* Powdery Mildew	315-630
	Leaf Scald	315

* Suppression only

Veritas® vs Competitor Products

Parameter	Veritas®	Amistar* Xtra	Tazer* Xpert	Opera*	Prosaro*
Active ingredients	Azoxystrobin Tebuconazole	Azoxystrobin Cyproconazole	Azoxystrobin Epoxiconazole	Pyraclostrobin Epoxiconazole	Prothioconazole Tebuconazole
Formulation type	SC	SC	SC	SE	SC
Wheat & barley diseases controlled	11	8	13	10	12
Labelled crops	3 (+ 5 more pending)	3	3	3	6
Resistance management	Yes	Yes	Yes	Yes	No
Adjuvant required	No	No	Yes	Yes	Yes

Veritas pending additional crops include Chickpeas, Lentil, Faba Beans, Mung beans and Canola. Chickpeas and Lentils currently covered until Sept 2017 by APVMA permit.

* Registered Trademarks

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Using Veritas in Cereals

Veritas should be used to prevent disease, not to cure it

- Maximise yield
- Minimise the chance of resistance developing
- Early applications maximise the super protectant benefits of azoxystrobin

Most cost-effective application timing is generally between stem elongation and ear emergence

Aim to protect the important leaves

- Wheat flag leaf can contribute over 40% of yield
- Barley flag-1 can contribute up to 40% of yield and flag-2 up to 15%
- Keeping key leaves green and functioning through grain filling will help to maximise yield



Application

- **Ground Application:** Apply in a water volume of between 50 and 100 L/ha using a medium quality spray. Use the higher water volume in crops with heavier canopies.
- **Aerial Application:** Apply with suitable aircraft, set up and operated to apply fungicides to cereal crops in a minimum water volume of 10 L/ha



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Withholding Periods - Cereals

- **Grazing:** Do not graze or cut for stockfeed for 21 days after application.
- **Harvest:** Do not harvest for 42 days after application.
- **Export slaughter interval:** Do not slaughter animals destined for export within 7 days of consumption of treated cereal forage or straw. Livestock that have been grazed on or fed treated crops should be placed on clean feed for 7 days prior to slaughter.

Veritas Compatibility

Herbicides

2,4-D Amine	Cutlass M	Legacy MA	Mentor
2,4-D LV Ester*	Eclipse	Lonestar	Wildcat
Artillery	Enforcer 75D	Victory	Tackle
Colt	Diuron WG	MCPA 570	Mandate#
Crusader	Hussar	Lynx	
Cutlass	Intervix	MCPA 750	

Insecticides

Alpha-Scud Elite	Dimethoate
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Do not apply Veritas with oil-based adjuvants

* Some additional phyto may be expected

Apply with non ionic surfactant only

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Features & Benefits - Pulses

Features	Benefits
Mixture of highly active strobilurin and triazole active ingredients	Highly effective disease control with resistance management benefits
Protectant and systemic disease control	The best insurance for protecting yield-determining leaves
Higher triazole application rate than alternative strobilurin + triazole fungicide mixtures	Ideal for Australian conditions with consistent efficacy and resistance management with full dose triazole rate
Broad spectrum disease control	Reduces the need to apply a range of fungicides when encountering multiple diseases
Compatible with a wide range of crop protection products	Ability to do a single pass application with reduced cost, labour and crop damage.
Excellent value for money	Ability to apply more effective fungicides in cereal crops than solo triazoles and improve yields.

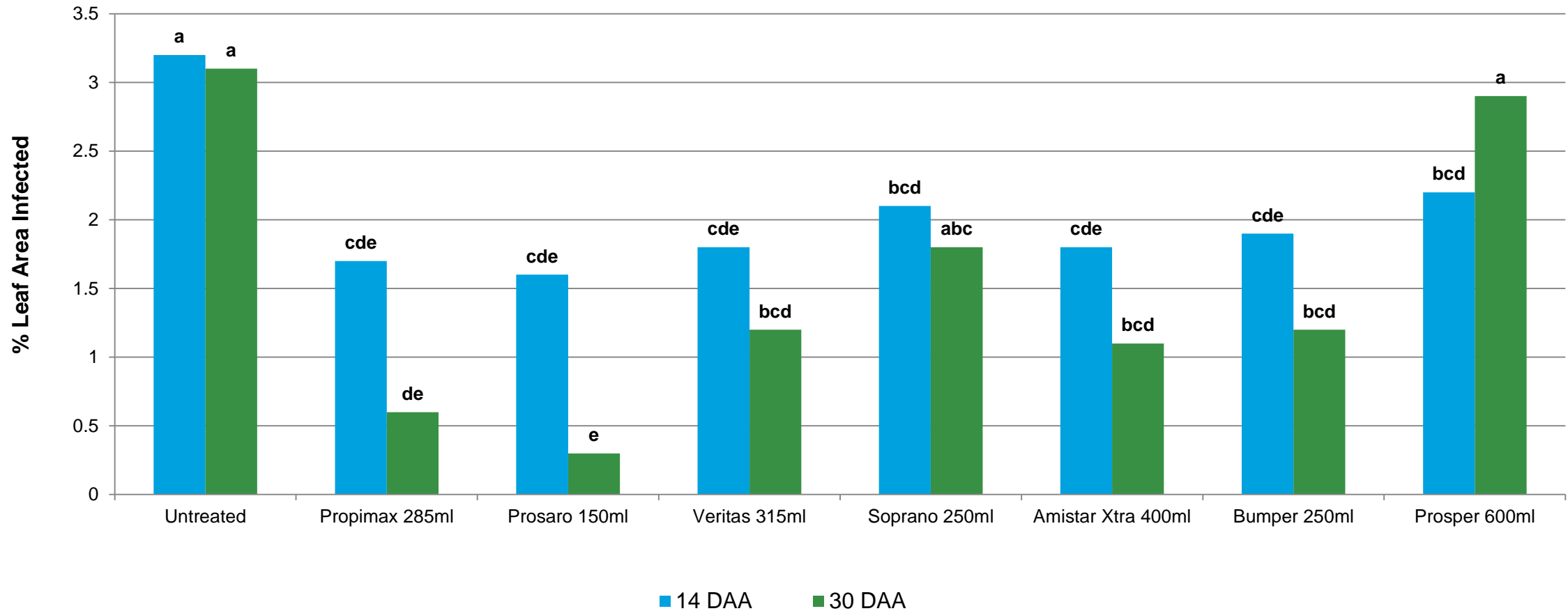


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Cereal Trial Results

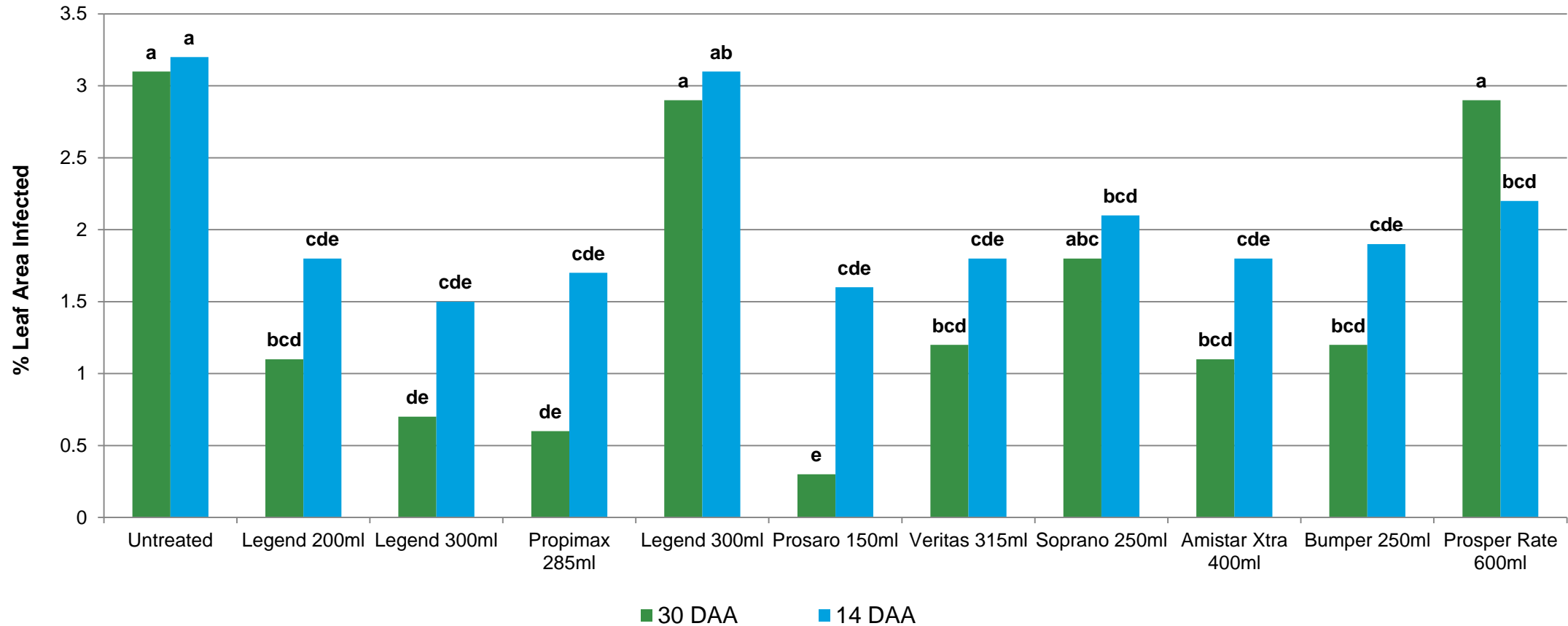
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Spot Type Net Blotch severity Kojonup, W.A. 2014



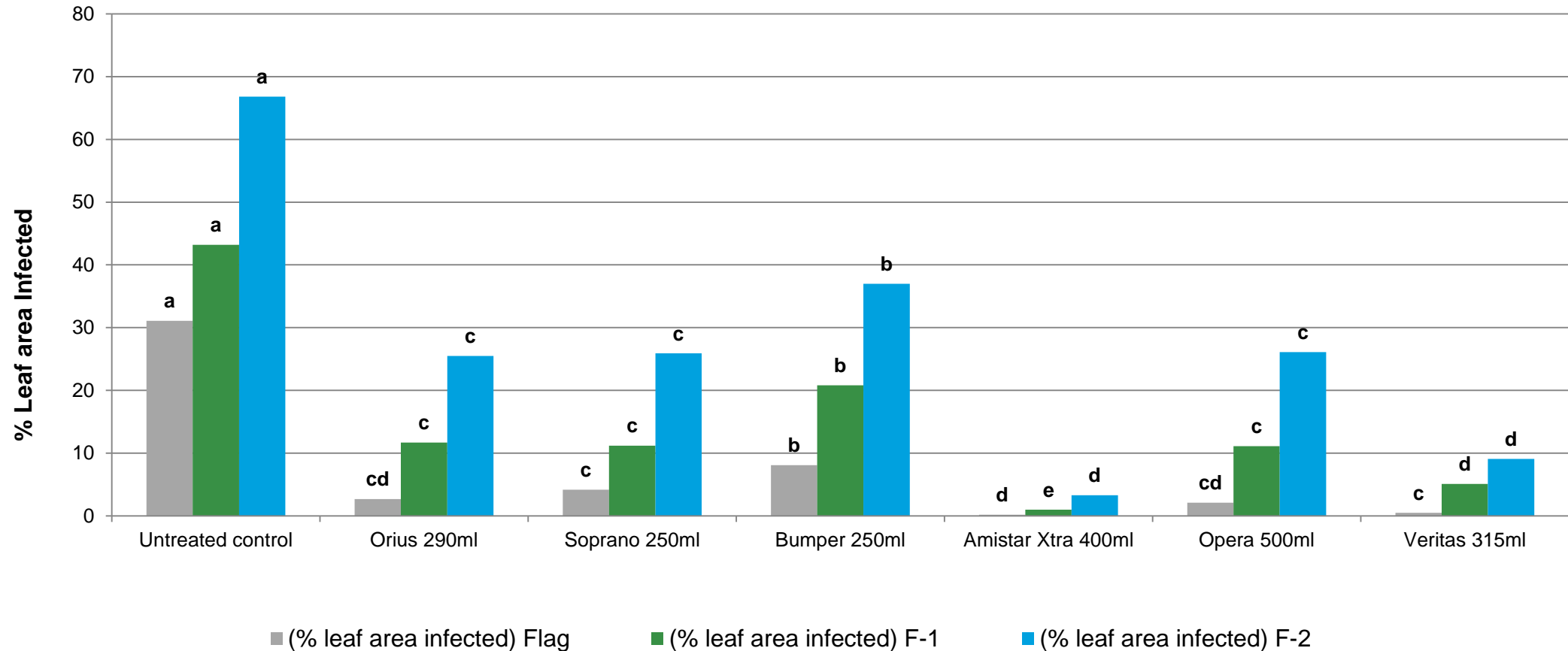
Means followed by same letter do not significantly differ
($P = 0.05$)
Living Farm Trial No: LF 140809

Spot Type Net Blotch severity Kojonup, W.A. 2014



Means followed by same letter do not significantly differ
($P = 0.05$)
Living Farm Trial No: LF 140809

Barley Leaf Rust severity on top four leaves 14DAA Werribee, Victoria, 2011



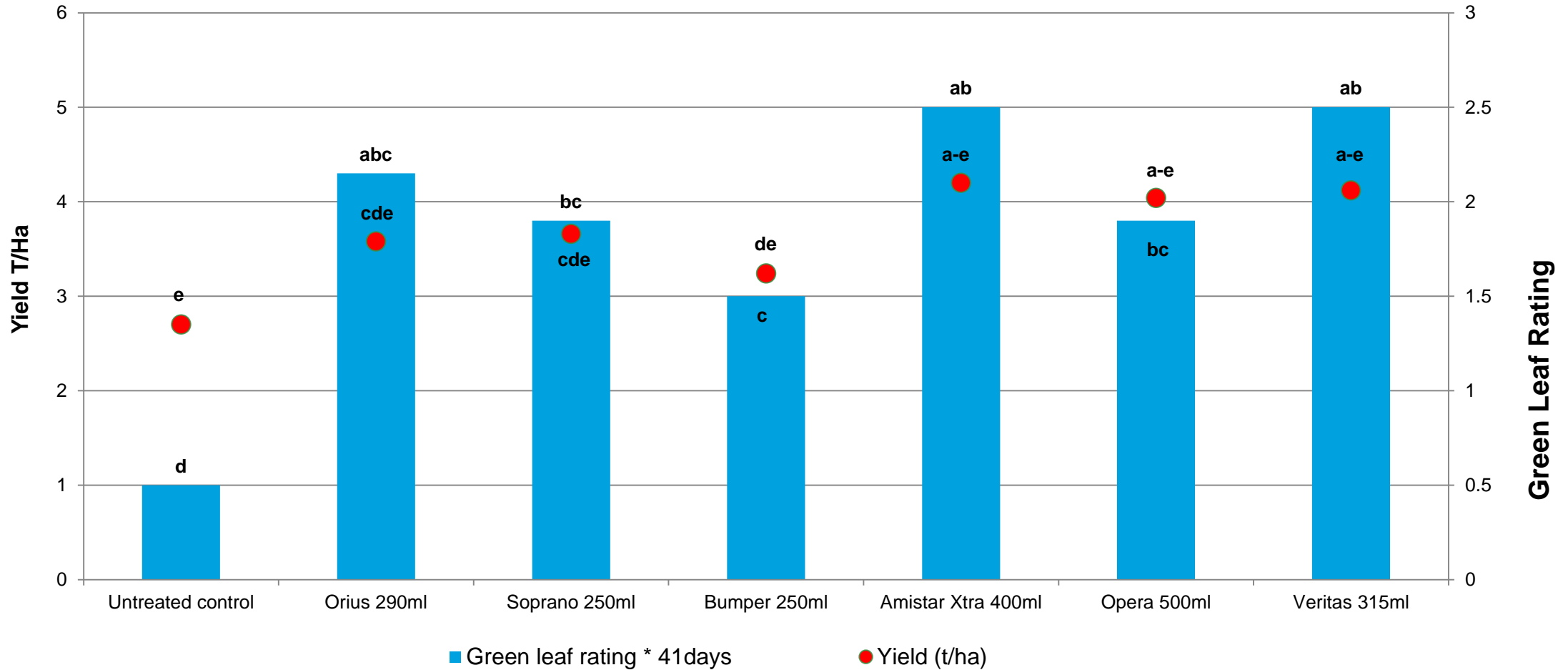
Means followed by same letter do not significantly differ

($P = 0.05$)

Peracto – FAR09235#5

ADAMA

Green leaf area and yield assessment, Barley Werribee, Victoria, 2011



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($P = 0.05$)
Peracto – FAR09235#5

Green leaf area and yield assessments, Barley Werribee, Victoria, 2011

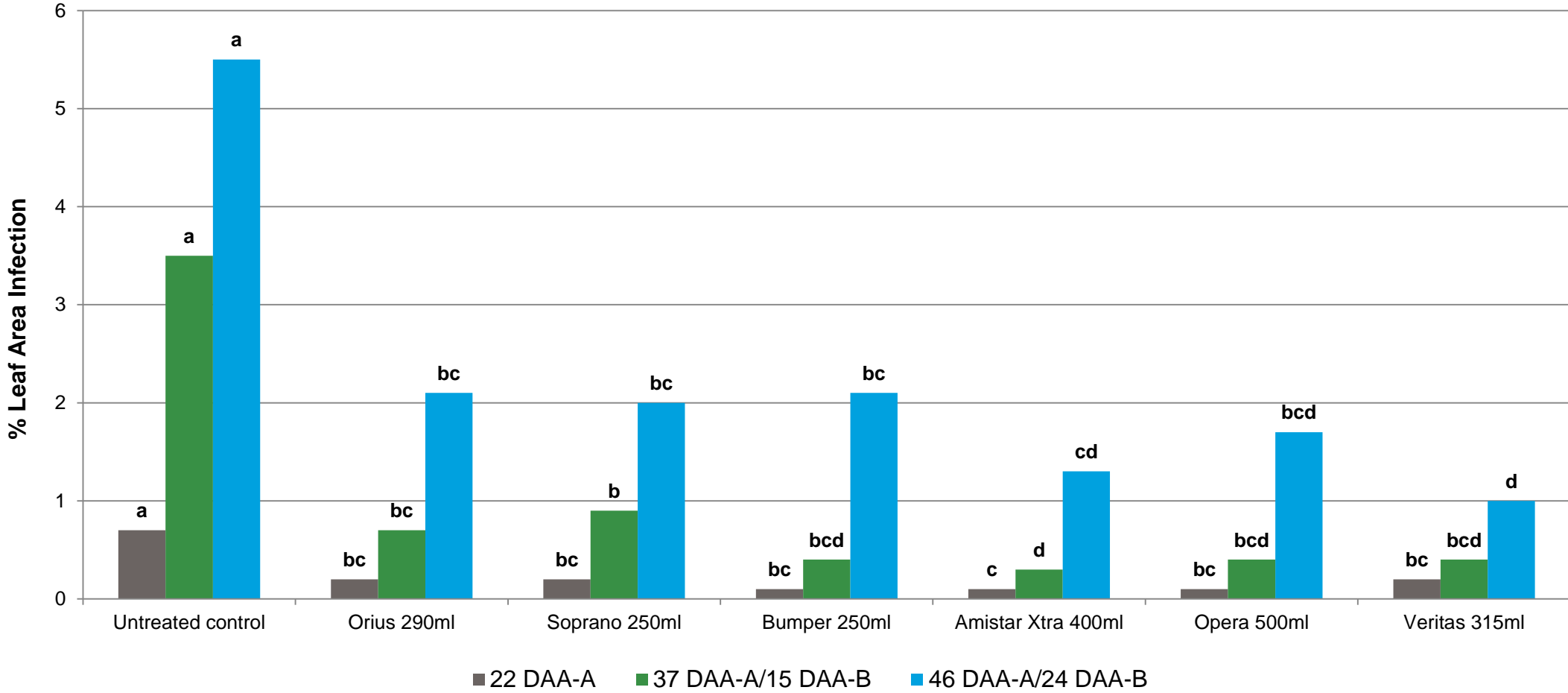


Veritas 630 mL/Ha 14DAA



Amistar Xtra 400mL/Ha 14DAA

Powdery Mildew, Barley – flag leaf Toodyay, Western Australia, 2010

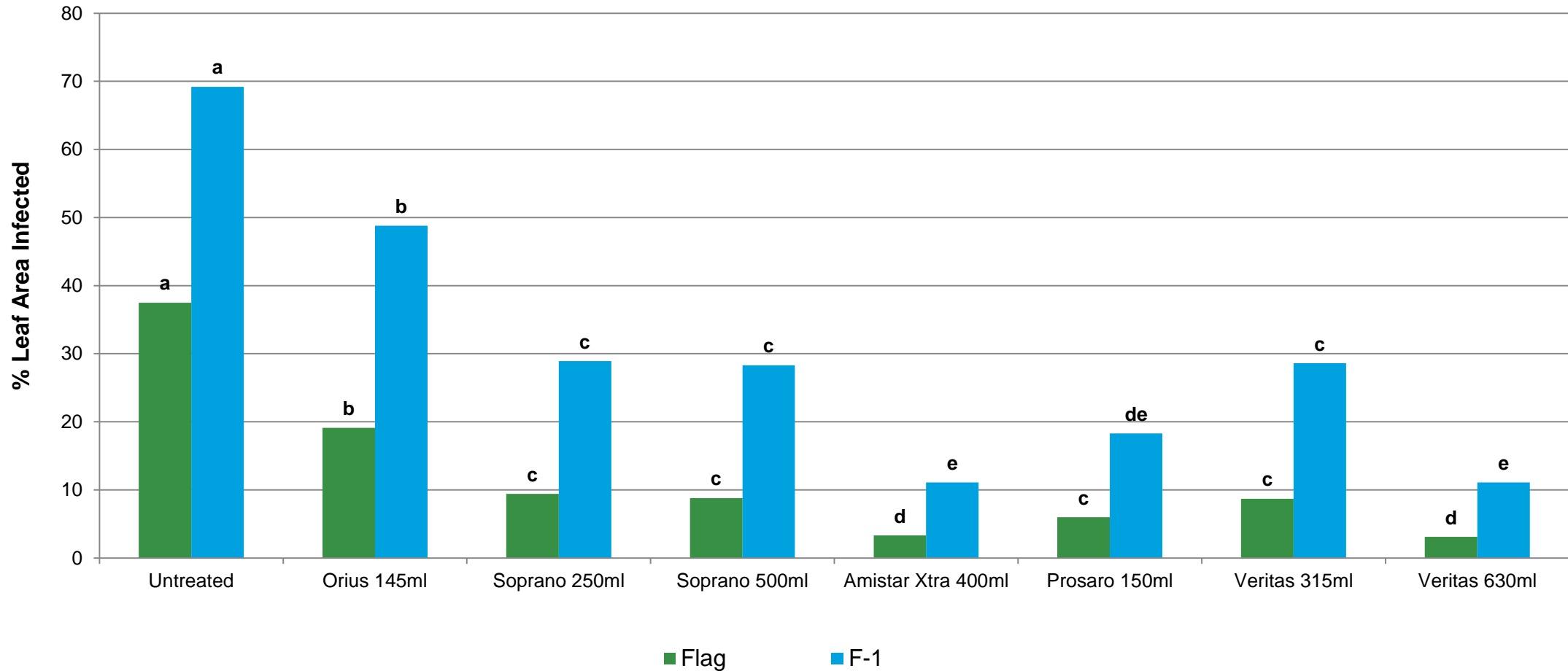


Means followed by same letter do not significantly differ
($P = 0.05$)
Peracto – FAR09235#8



Application B applied at 22 DAA

Barley Leaf Rust severity on top two leaves, 29 DAA Balliang, Victoria, 2011



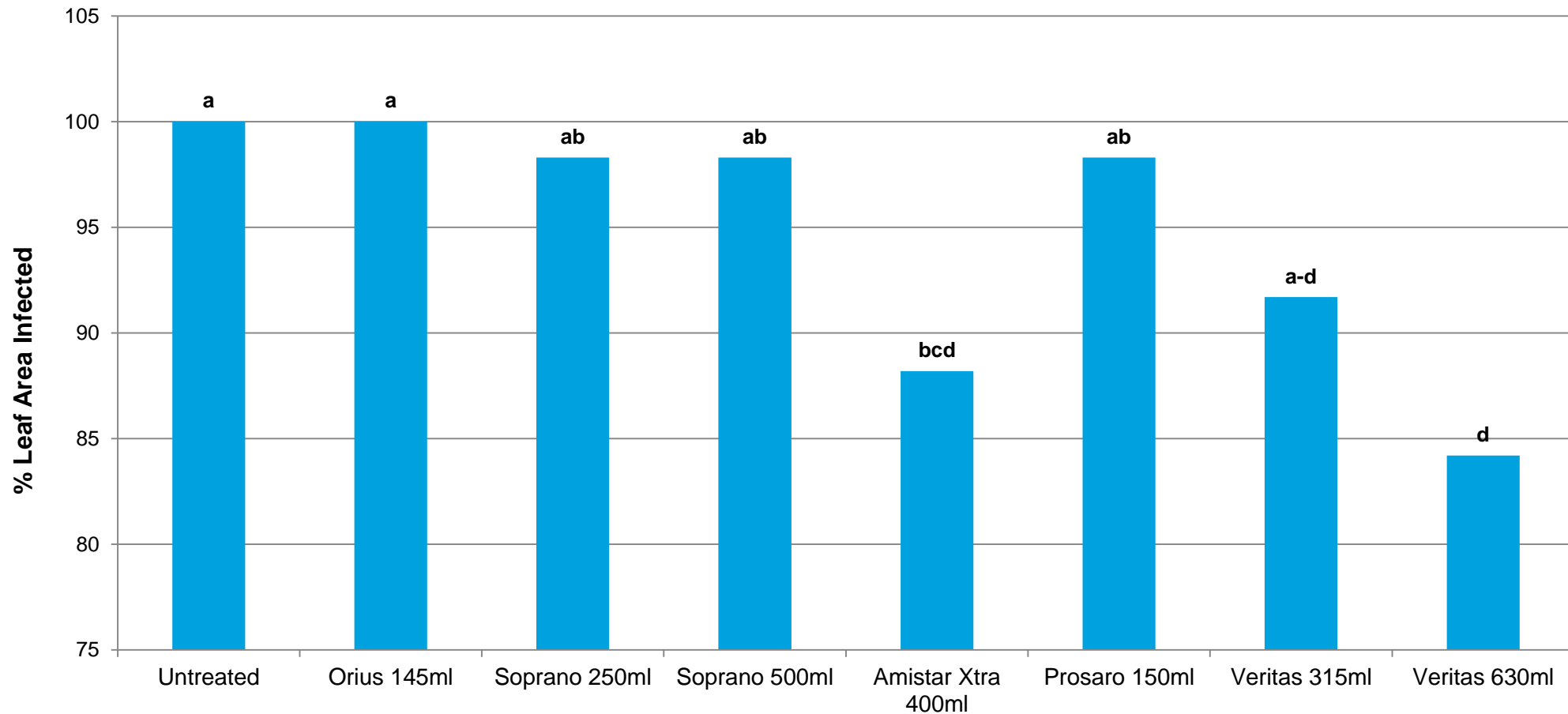
Means followed by same letter do not significantly differ

($P = 0.05$)

Peracto – FAR10226#5

ADAMA

Barley Leaf Rust incidence on top three leaves, 29 DAA Balliang, Victoria, 2011



Means followed by same letter do not significantly differ

($P = 0.05$)

Peracto – FAR10226#5

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Barley Leaf Rust Trial

Balliang, Victoria, 2011. 29 DAA (FAR10226#5)



UTC



Orius
145 mL/ha



Soprano
500 mL/ha



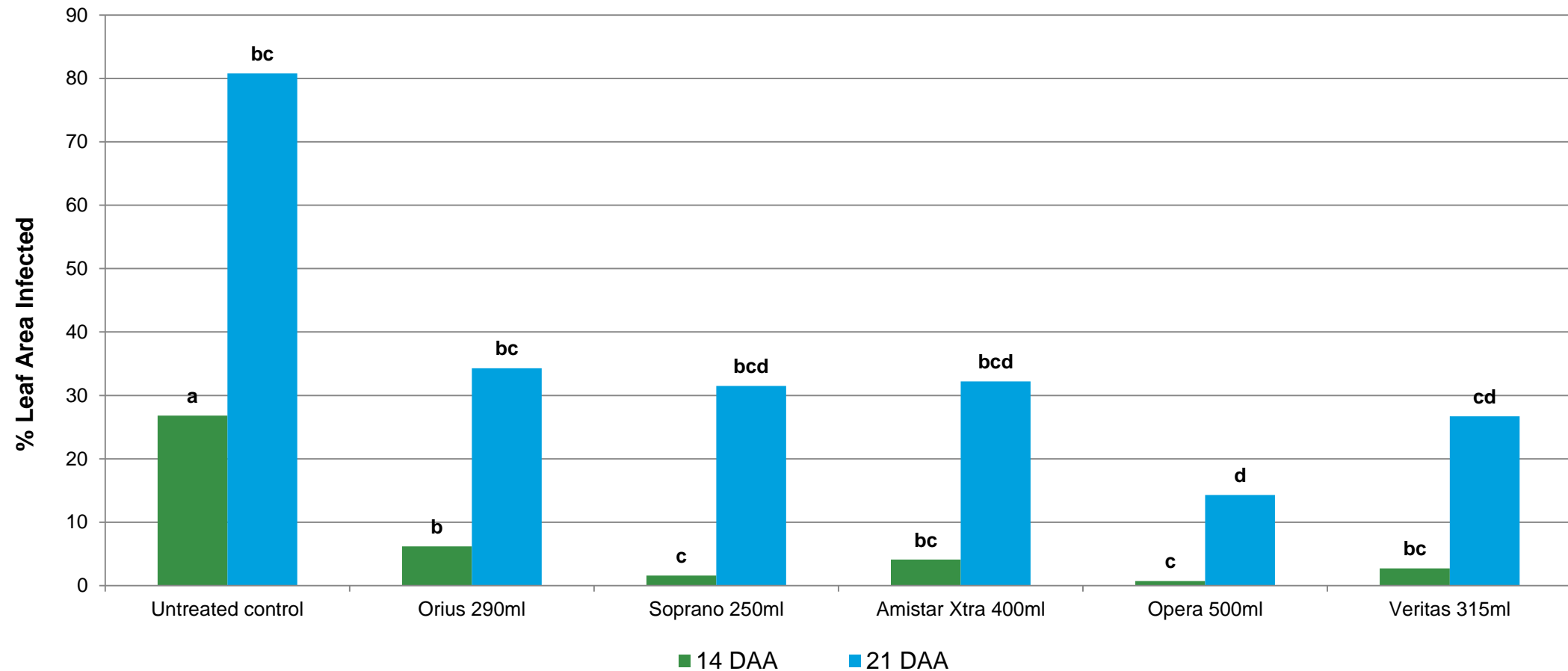
Amistar Xtra
400 mL/ha



Veritas 630
mL/ha

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Severity of Stripe Rust on Wheat Forth, Tasmania, 2011



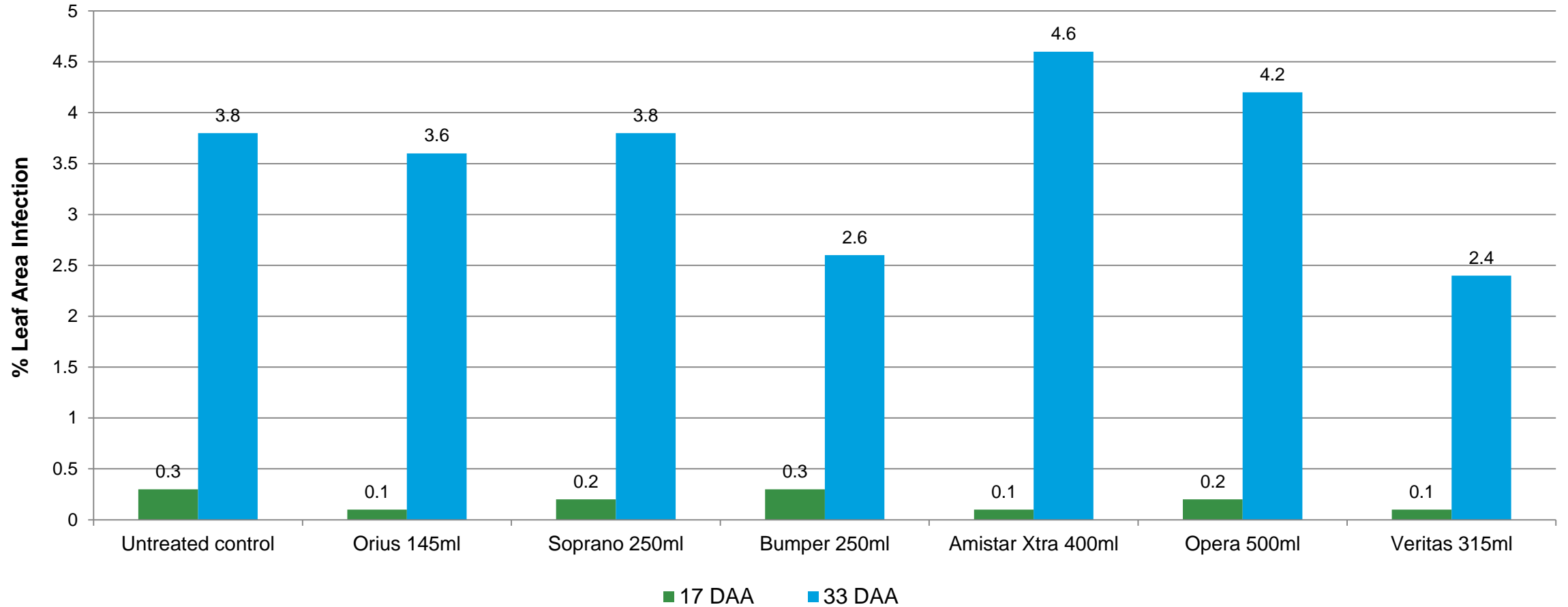
Means followed by same letter do not significantly differ

($P = 0.05$)

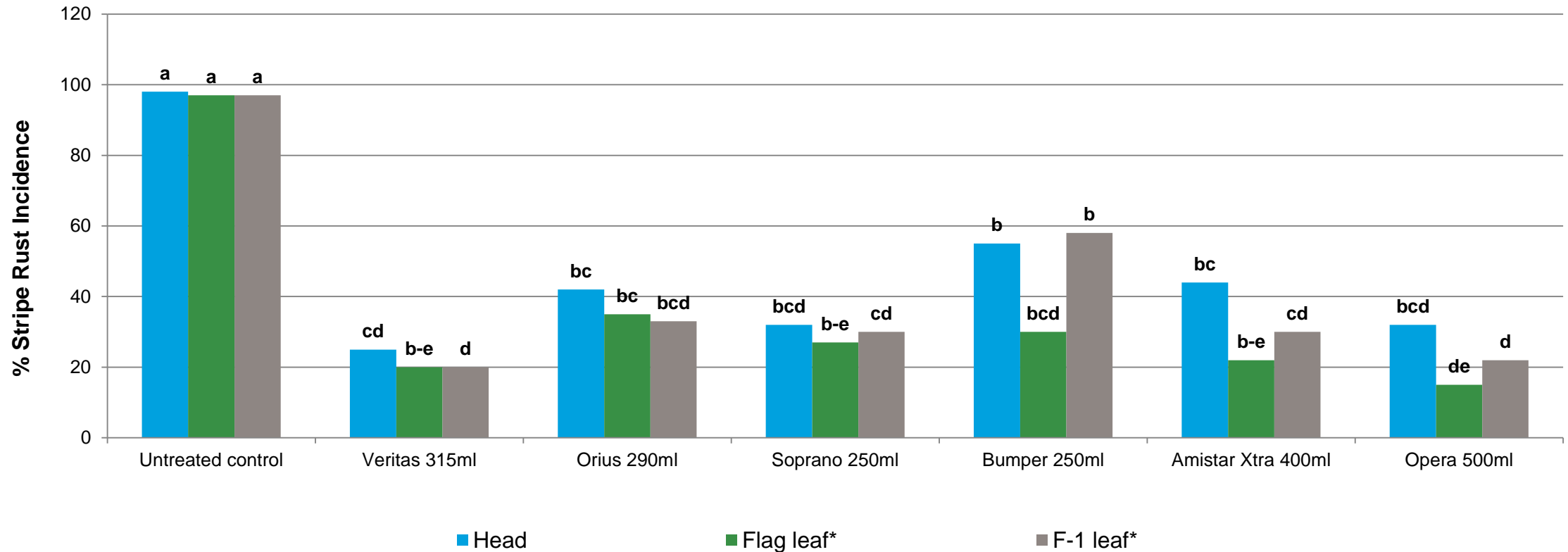
Peracto – FAR09235#4

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Septoria nodorum in Wheat – flag leaf Toodyay, Western Australia, 2010

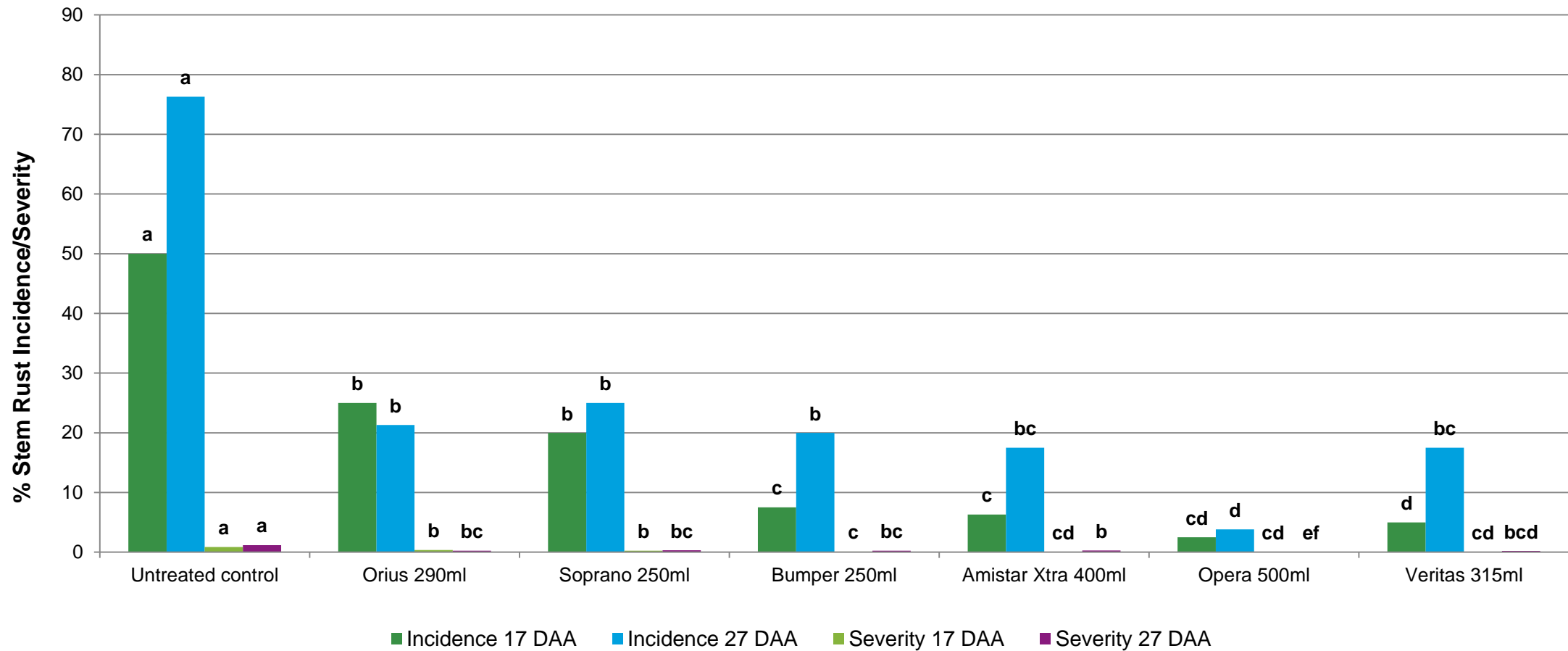


Stripe Rust incidence in Wheat Arthurton, South Australia, 39 DAA, 2011



Means followed by same letter do not significantly differ
($P = 0.05$)
Peracto – FAR09235#7
Wheat variety - H45

Stem Rust incidence and severity on Wheat cv. Yitpi, Eudunda, South Australia, 2011



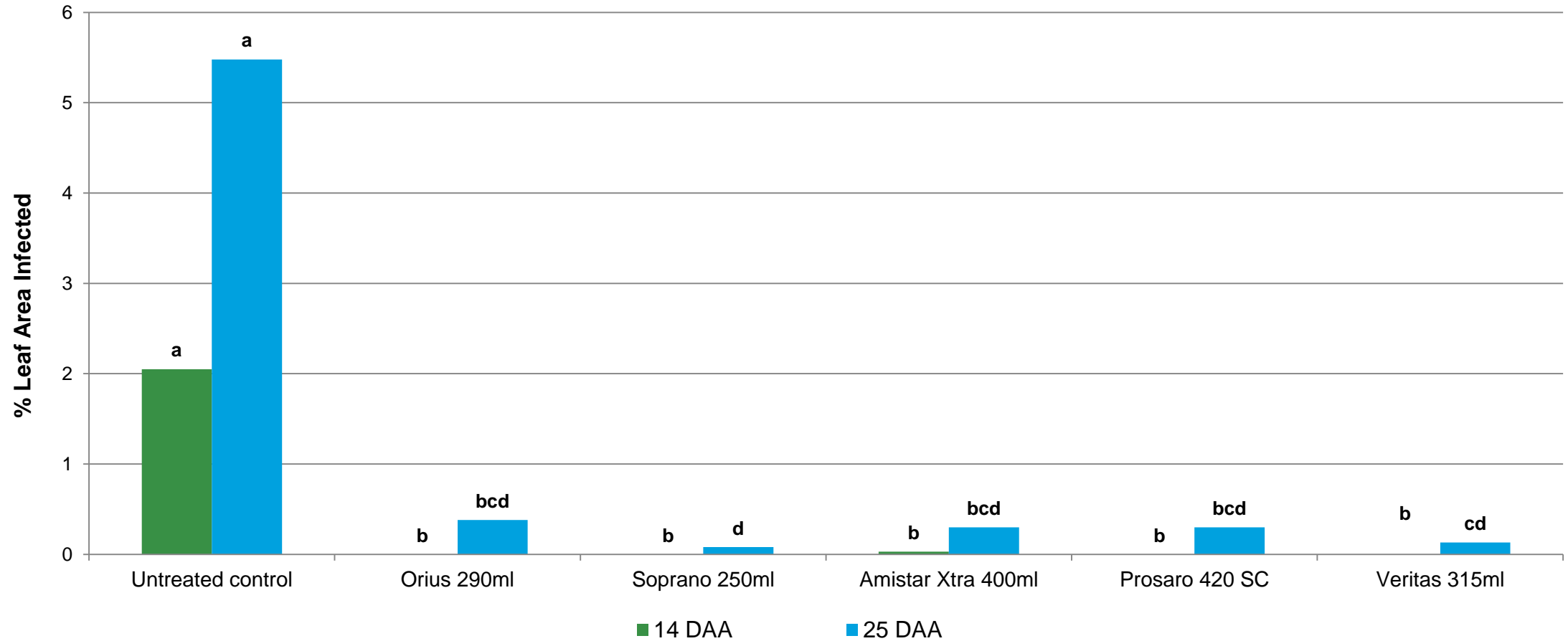
Means followed by same letter do not significantly differ

($P = 0.05$)

Peracto – FAR09235#6

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Stripe Rust severity of the flag leaf, Wheat Cressy, Tasmania, 2012



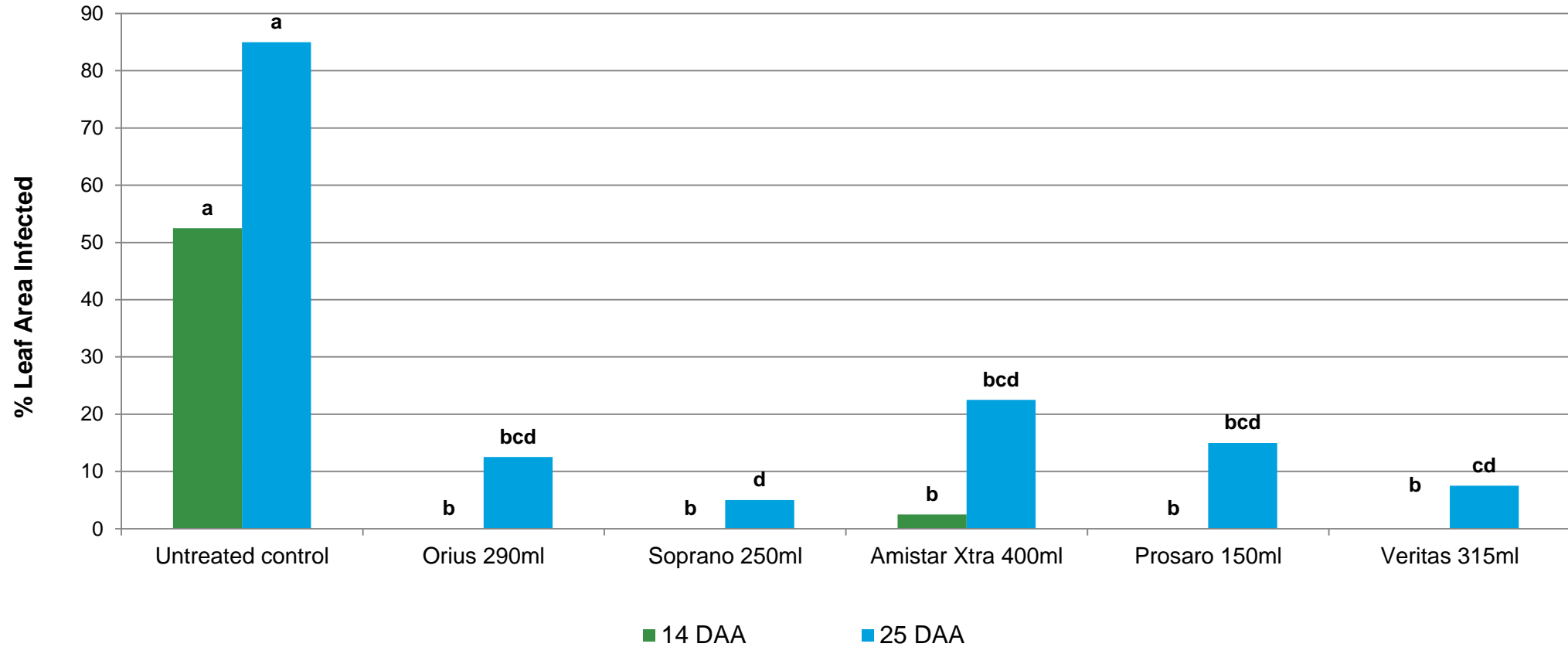
Means followed by same letter do not significantly differ

($P = 0.05$)

Peracto – FAR10226#2

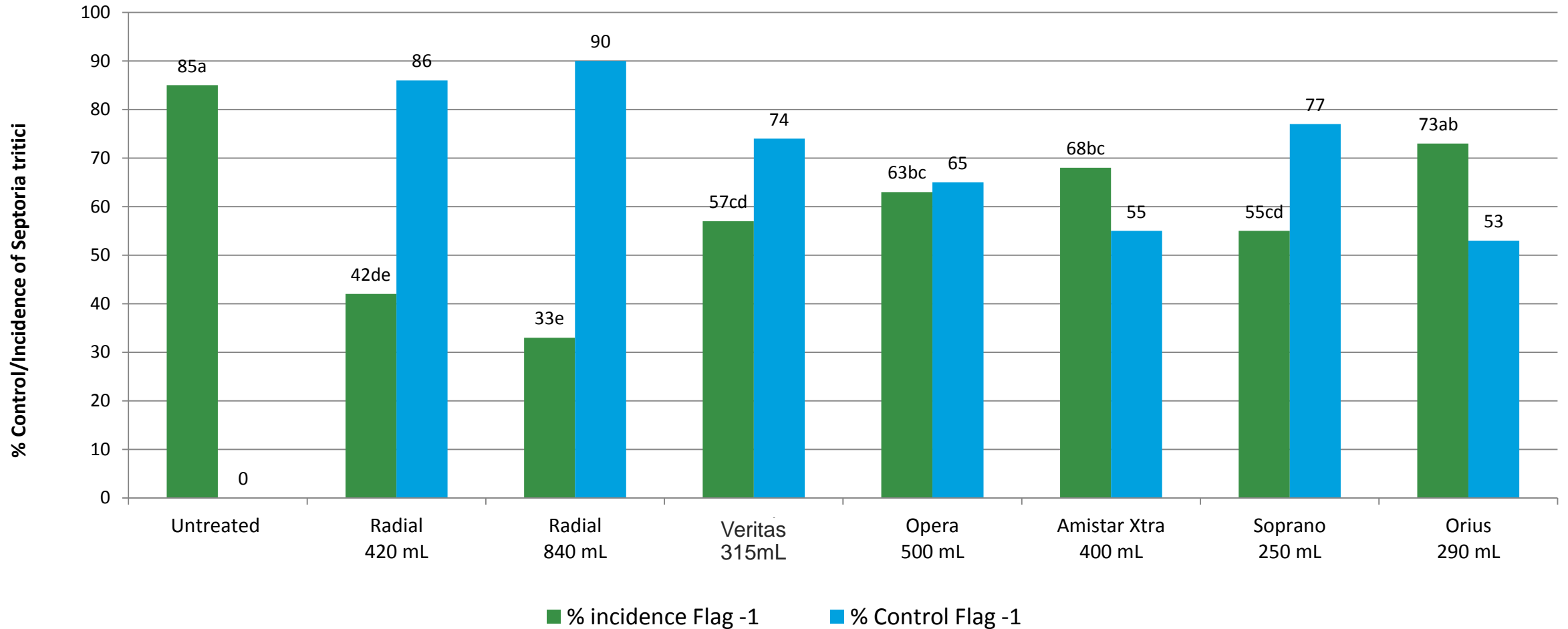
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Stripe Rust incidence of the flag leaf, Wheat Cressy, Tasmania, 2012



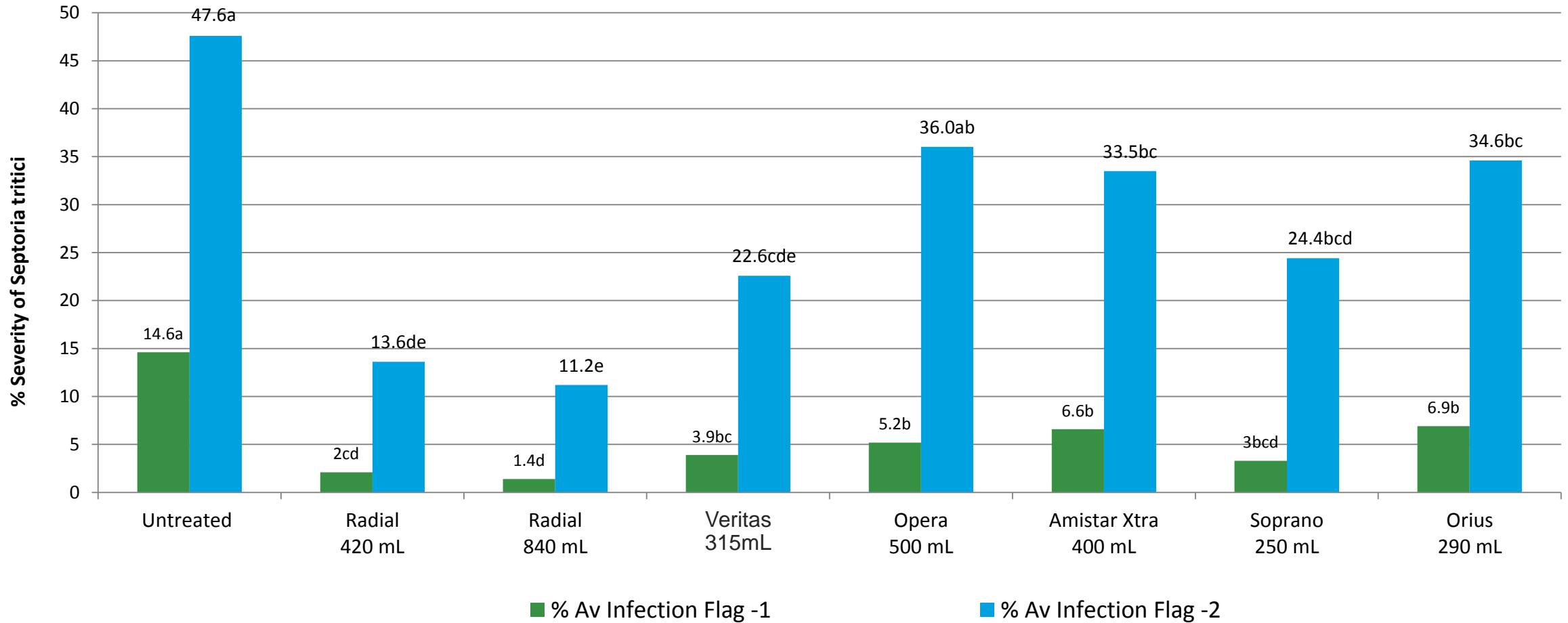
Means followed by same letter do not significantly differ
($P = 0.05$)
Peracto – FAR10226#2

Septoria tritici Control Carranballac Flag Leaf -1, Wheat 2013



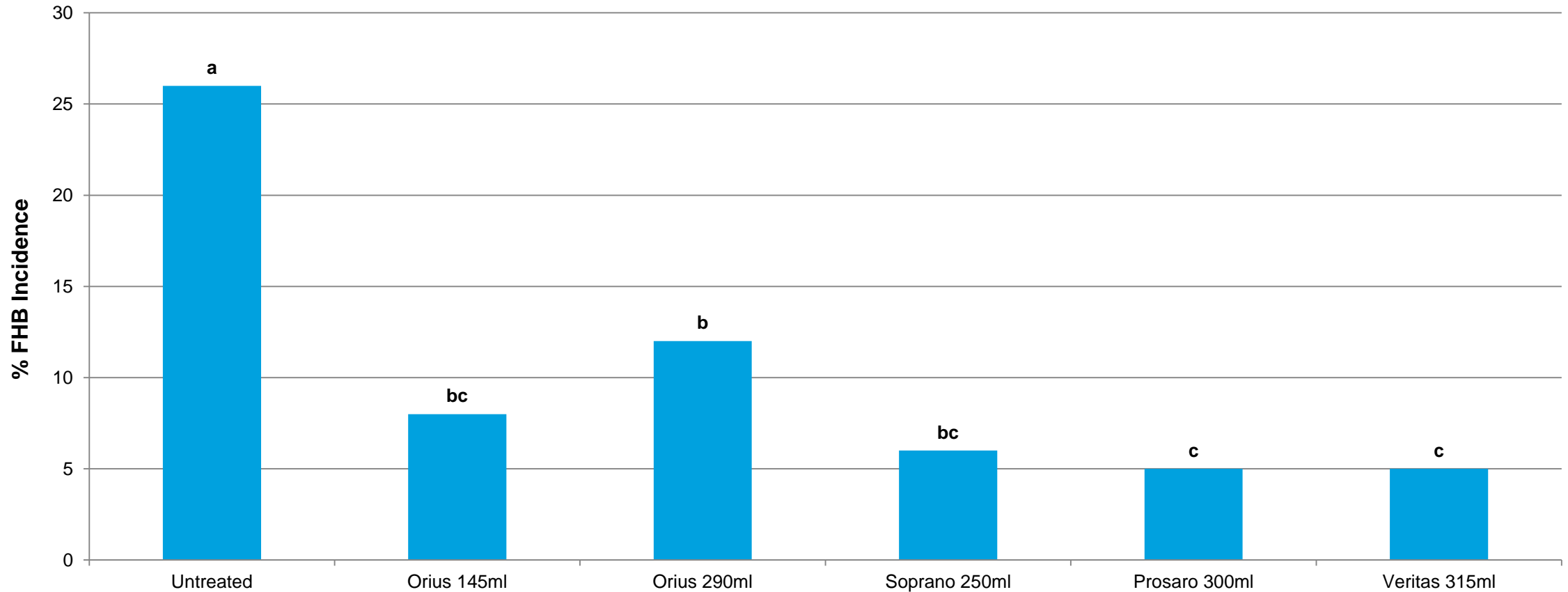
Means followed by same letter do not significantly differ ($P = 0.05$).
Incidence LSD = 15.6 CV = 10.6

Septoria tritici Severity, Carranballac, Wheat, 2013



Means followed by same letter do not significantly differ (P = 0.05).
 Severity Flag -1 LSD = 0.27 CV = 25.8 Flag -2 LSD = 12.3 CV = 24.2

Fusarium Head Blight Incidence, Wheat Spring Ridge NSW, 2011



Means followed by same letter do not significantly differ
($P = 0.05$)

Farmoz No: FZ-11-F01-2

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Veritas will not initially be registered for
FHB. Screening trial only



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True broad spectrum
Performance.



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