

Trial Info.

- Planted: May 10, 2024
- Inoculated: July 10, 2024
- Harvested: September 27, 2024
- Location: Meadows Twp, Wilkin County, MN
- Variety: ACH 290 (CR+)
 - CLS Rating = 2.36

- Objective: Evaluate the yield and quality response (if any) of applying fungicide tank mixtures on differing spray intervals.

Treatment List:



MDFC 1:

(Proline as first triazole)

1. Manzate (7/10/24)
2. Proline + NIS + Manzate (7/18/24)
3. Agri Tin + Manzate (8/13/24)
4. Provysol + Manzate (8/29/24)

MDFC 2:

(Provysol as first triazole)

1. Manzate (7/10/24)
2. Provysol+ Manzate (7/18/24)
3. Agri Tin + Manzate (8/13/24)
4. Proline + NIS + Manzate (8/29/24)

No Early:

(no EBDC application)

1. Proline + NIS + Manzate (7/18/24)
2. Agri Tin + Manzate (8/13/24)
3. Provysol + Manzate (8/29/24)

Late Start:

(start in middle of program)

1. Proline + NIS + Manzate (8/13/24)
2. Agri Tin + Manzate (8/29/24)

Treatment List:



Spots:

(start when see spots in plot)

1. Proline + NIS + Manzate (7/18/24)
2. Agri Tin + Manzate (8/13/24)
3. Provysol + Manzate (8/29/24)

1st, 1st:

(EBDC @ row closure, beginning of each month)

1. Manzate (7/10/24)
2. Agri Tin + Manzate (8/6/24)
3. Provysol + Manzate (9/5/24)

All Short:

(~10-14-day intervals)

1. Manzate (7/10/24)
2. Proline + NIS + Manzate (7/18/24)
3. Agri Tin + Manzate (8/6/24)
4. Provysol + Manzate (8/19/24)

All Long:

(~21-day intervals)

1. Manzate (7/10/24)
2. Proline + NIS + Manzate (8/6/24)
3. Agri Tin + Manzate (8/29/24)



Treatment List:

Short Long Short:

(~10-14-day interval, ~21-day interval, ~10-14-day interval)

1. Manzate (7/10/24)
2. Proline + NIS + Manzate (7/18/24)
3. Agri Tin + Manzate (8/13/24)
4. Provysol + Manzate (8/23/24)

Untreated Check:

(no fungicide applications)

Long Gap:

(EBDC @ row closure, end of August, ~10-14-day interval)

1. Manzate (7/10/24)
2. Proline + NIS + Manzate (8/29/24)
3. AgriTin + Manzate (9/9/24)



Applications

<i>Date:</i>	Jul-10-2024	Jul-18-2024	Aug-6-2024	Aug-13-2024	Aug-19-2024	Aug-23-2024	Aug-29-2024	Sep-5-2024	Sep-9-2024
<i>Start Time:</i>	11:35 AM	2:06 PM	2:20 PM	10:10 AM	11:05 AM	9:55 AM	8:10 PM	10:05 AM	10:00 AM
<i>End Time:</i>	11:50 AM	2:37 PM	3:55 PM	10:50 AM	11:10 AM	10:00 AM	8:40 PM	10:10 AM	10:05 AM
<i>Application Method:</i>	Spray	Spray	Spray	Spray	Spray	Spray	Spray	Spray	Spray
<i>Application Timing:</i>	Preventative	Fixed Interval	Fixed Interval	Fixed Interval	Fixed Interval	Fixed Interval	Fixed Interval	Fixed Interval	Fixed Interval
<i>Application Placement:</i>	Foliar	Foliar	Foliar	Foliar	Foliar	Foliar	Foliar	Foliar	Foliar
<i>Temperature (F):</i>	78	78	76	70	79	77	67	62	68
<i>Humidity (%):</i>	60	51	52	71	69	86	69	76	67
<i>Wind Velocity (MPH):</i>	6	6	7	4	2	2	2	7	6
<i>Wind Direction:</i>	N	SSW	SSW	SSE	SW	SE	WNW	NNW	SSE

CLS Rating Scale



Category 1
1-5 spots/leaf
0.1% severity



Category 2
6-12 spots/leaf
0.35% severity



Category 3
13-25 spots/leaf
0.75% severity



Category 4
26-50 spots/leaf
1.5% severity



Category 5
51-75 spots/leaf
2.5% severity



Category 6
3% severity
PROVEN ECONOMIC DAMAGE



Category 7
6% severity



Category 8
12% severity



Category 9
25% severity



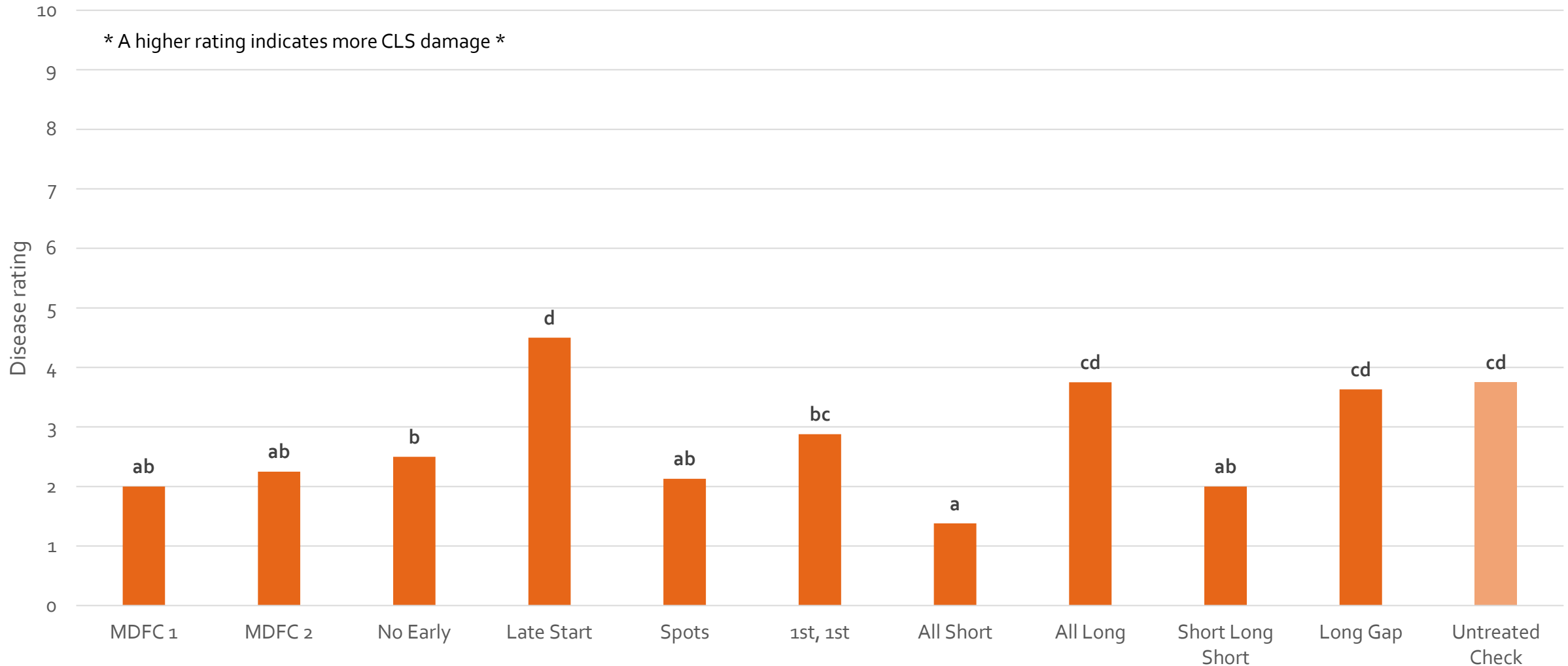
Category 10
50% severity

CLS Fungicide Program ~ Timings

LSD (p=0.10): 0.99
CV: 29.62



CLS Rating – August 7, 2024



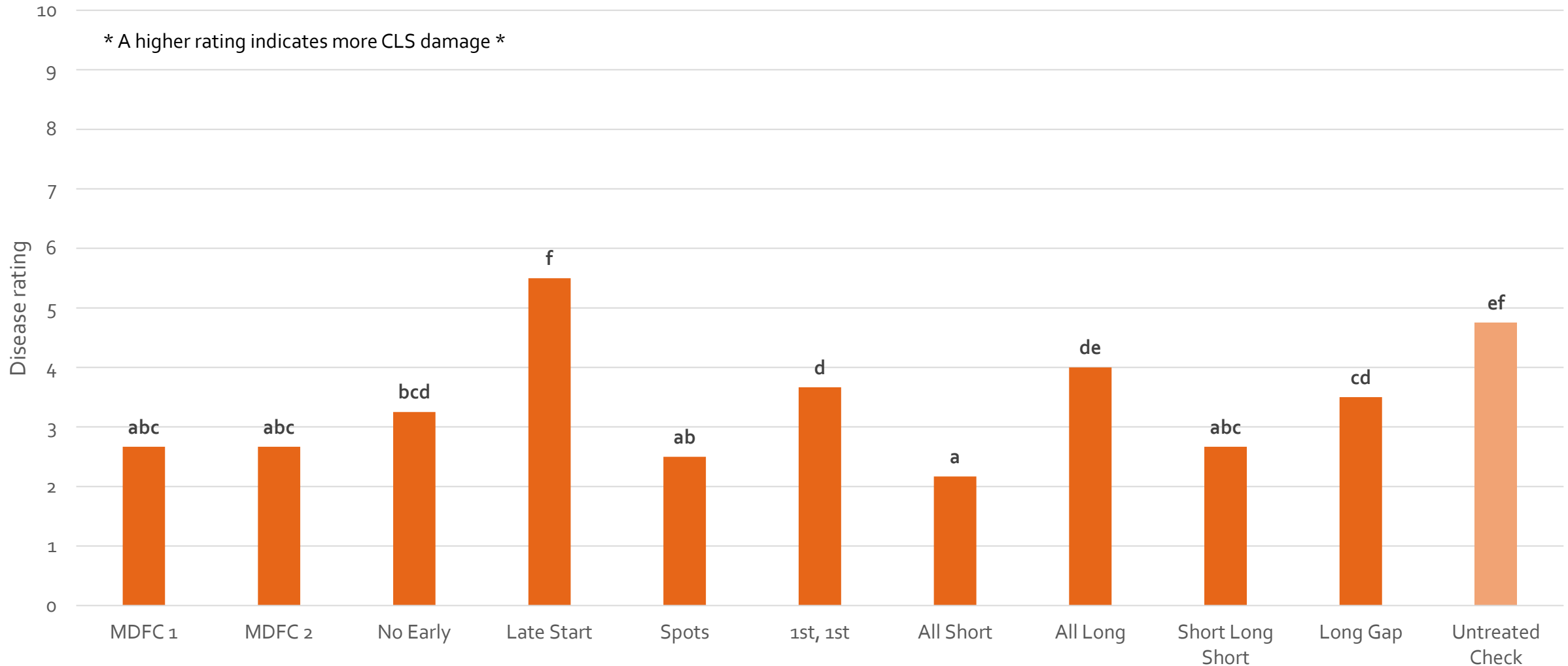
Treatments with the same letter are not statistically different

CLS Fungicide Program ~ Timings

LSD (p=0.10): 0.86
CV: 21.12



CLS Rating – August 13, 2024



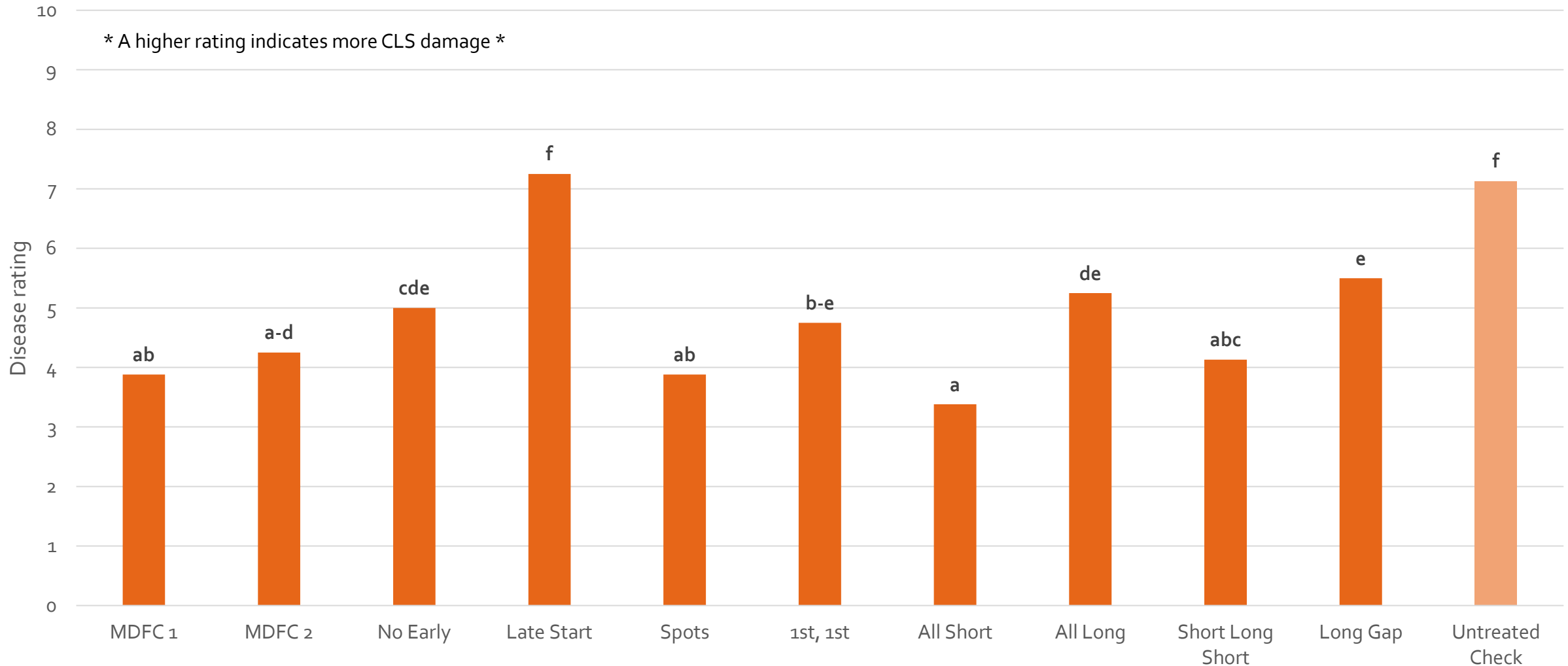
Treatments with the same letter are not statistically different

CLS Fungicide Program ~ Timings

LSD (p=0.10): 1.08
CV: 18.15



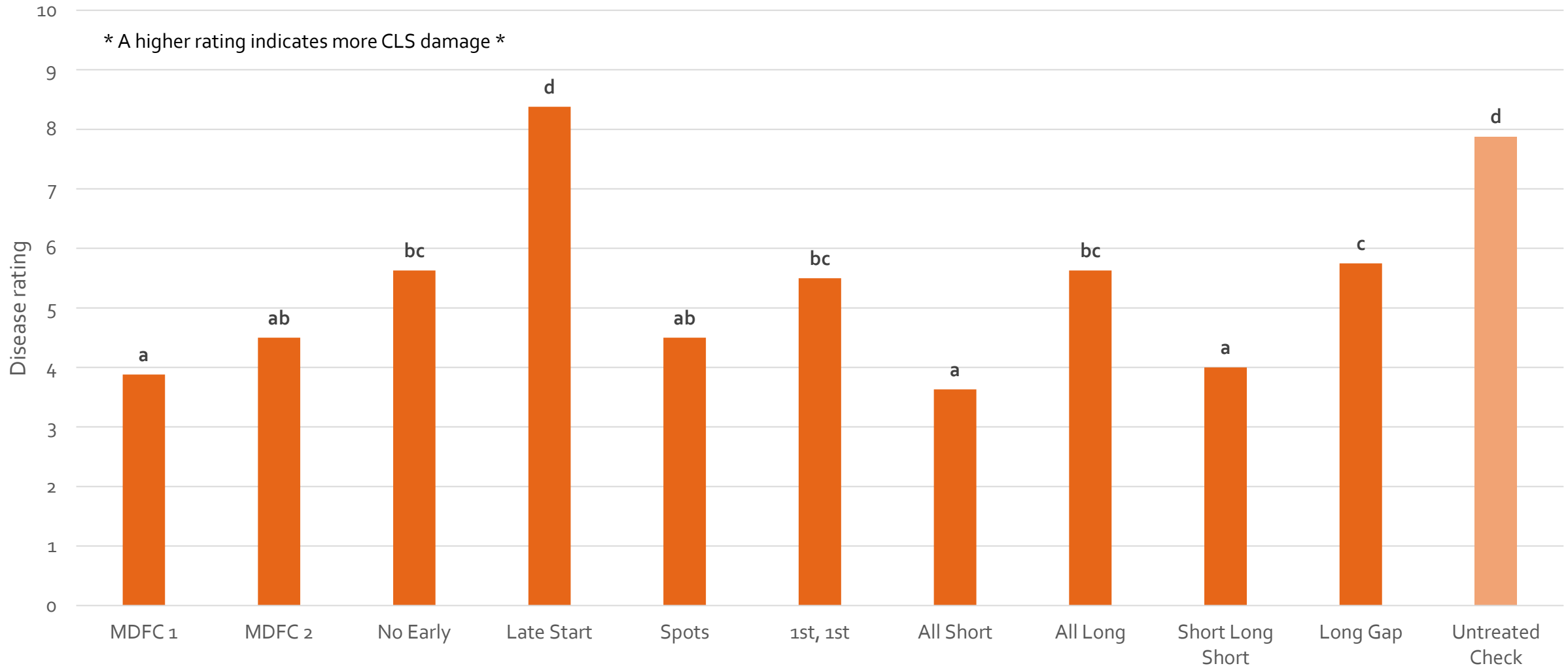
CLS Rating – August 20, 2024



Treatments with the same letter are not statistically different

CLS Fungicide Program ~ Timings

CLS Rating – August 23, 2024



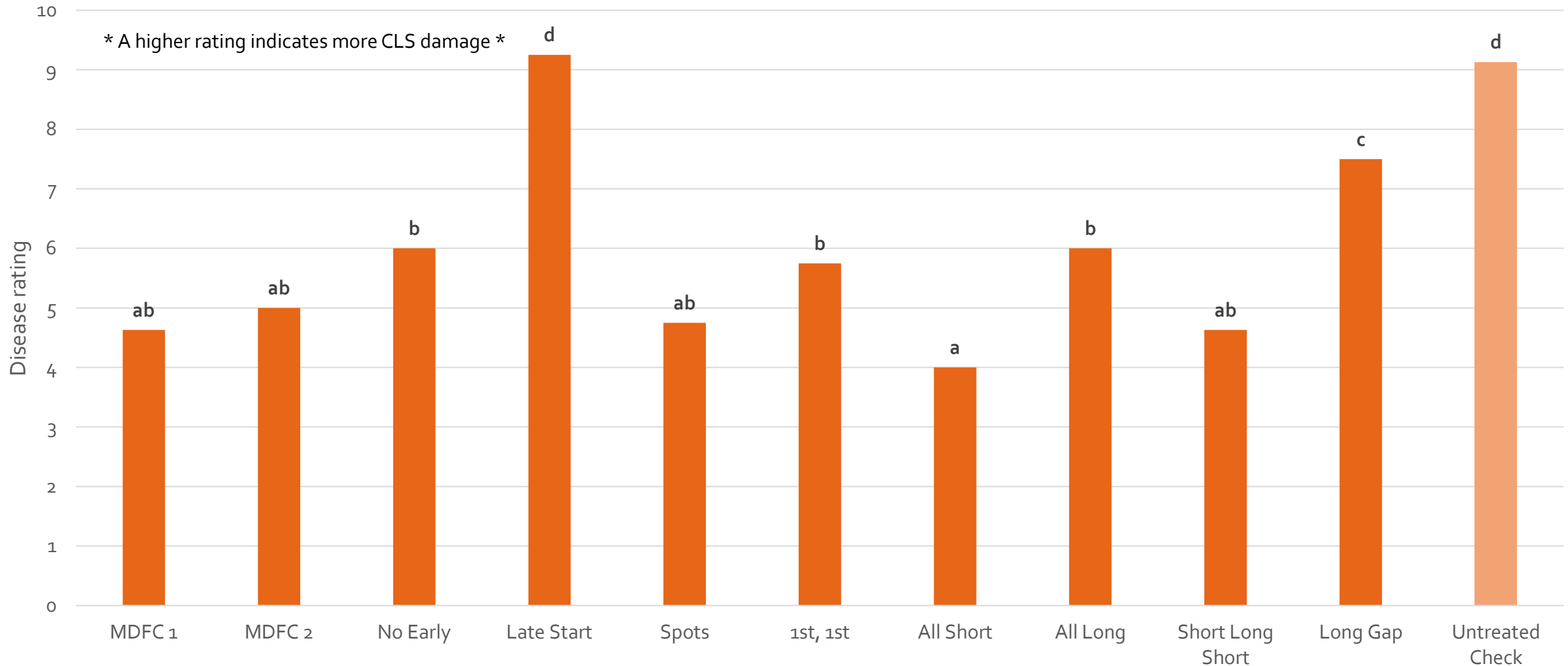
Treatments with the same letter are not statistically different

CLS Fungicide Program ~ Timings

LSD (p=0.10): 1.38
CV: 18.98



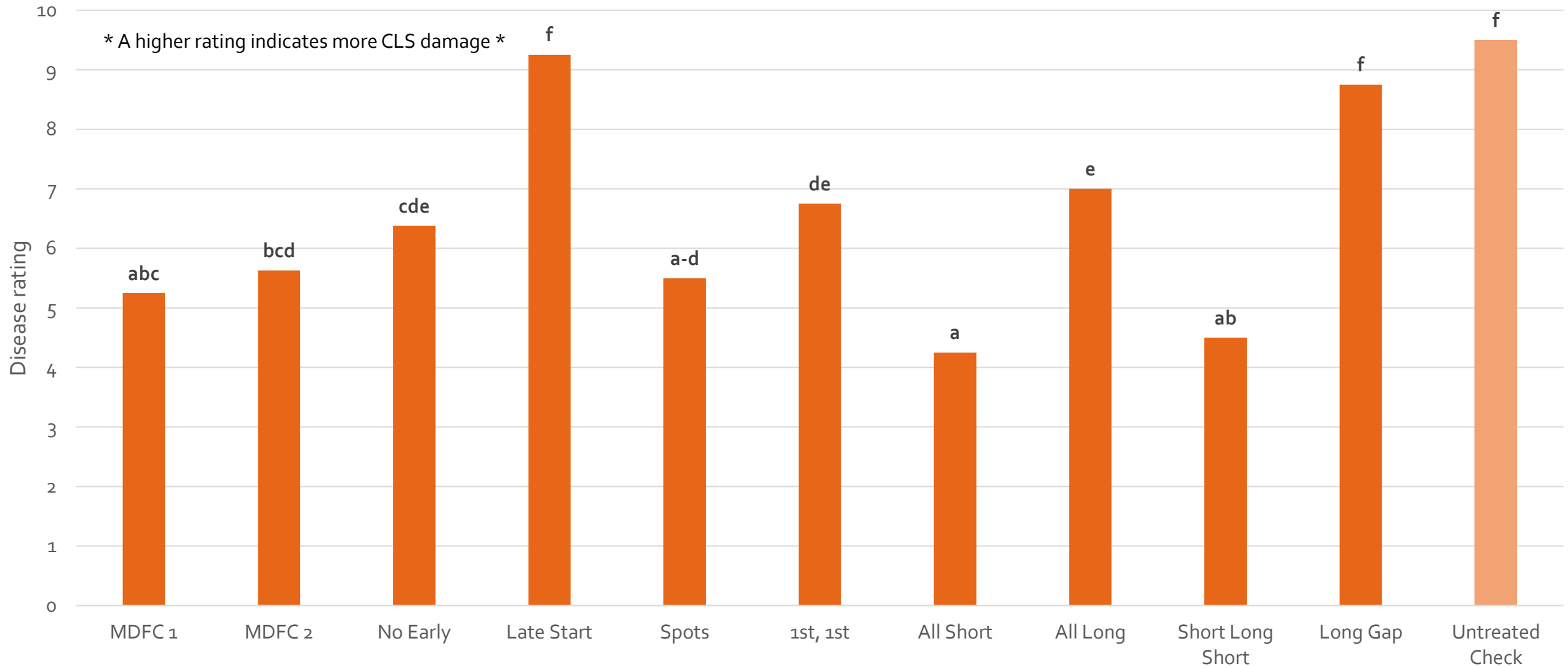
CLS Rating – August 27, 2024



Treatments with the same letter are not statistically different

CLS Fungicide Program ~ Timings

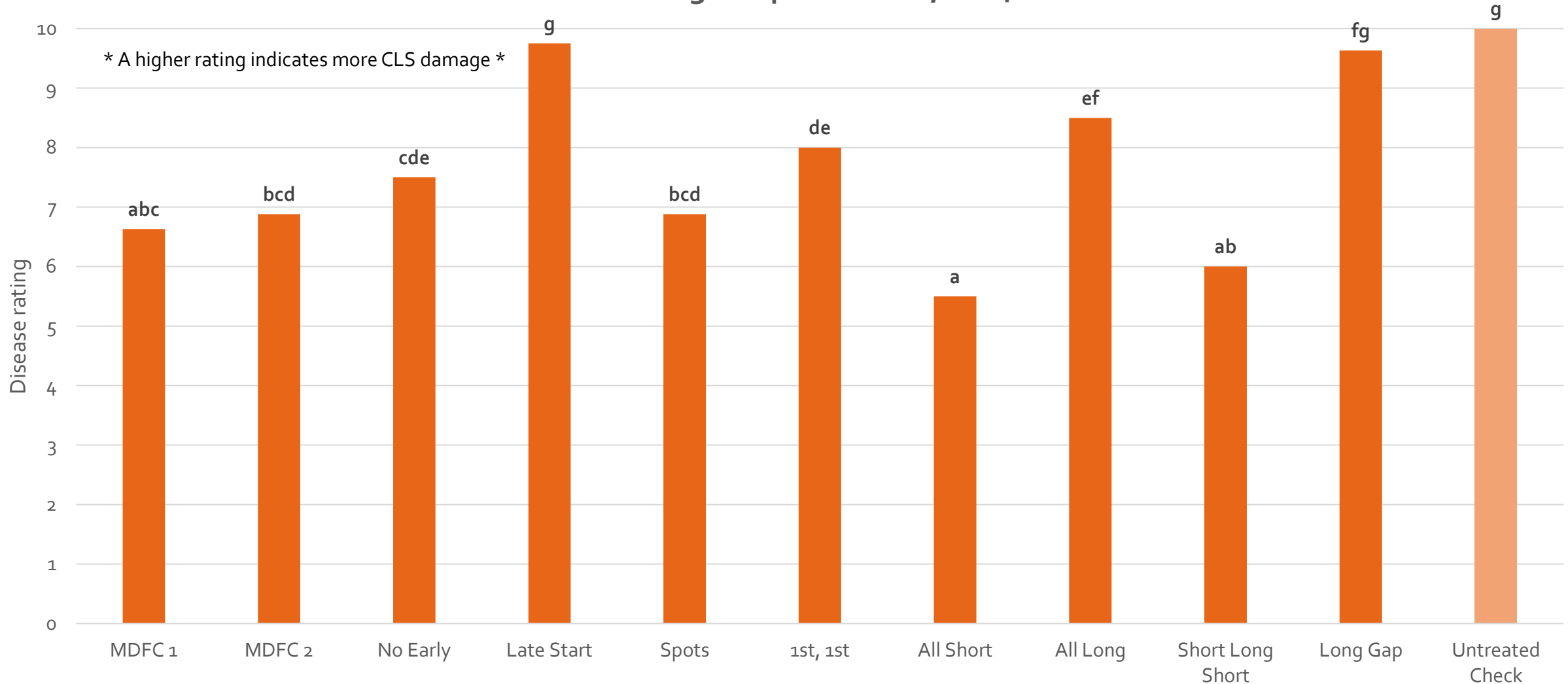
CLS Rating – September 3, 2024



Treatments with the same letter are not statistically different

CLS Fungicide Program ~ Timings

CLS Rating – September 10, 2024



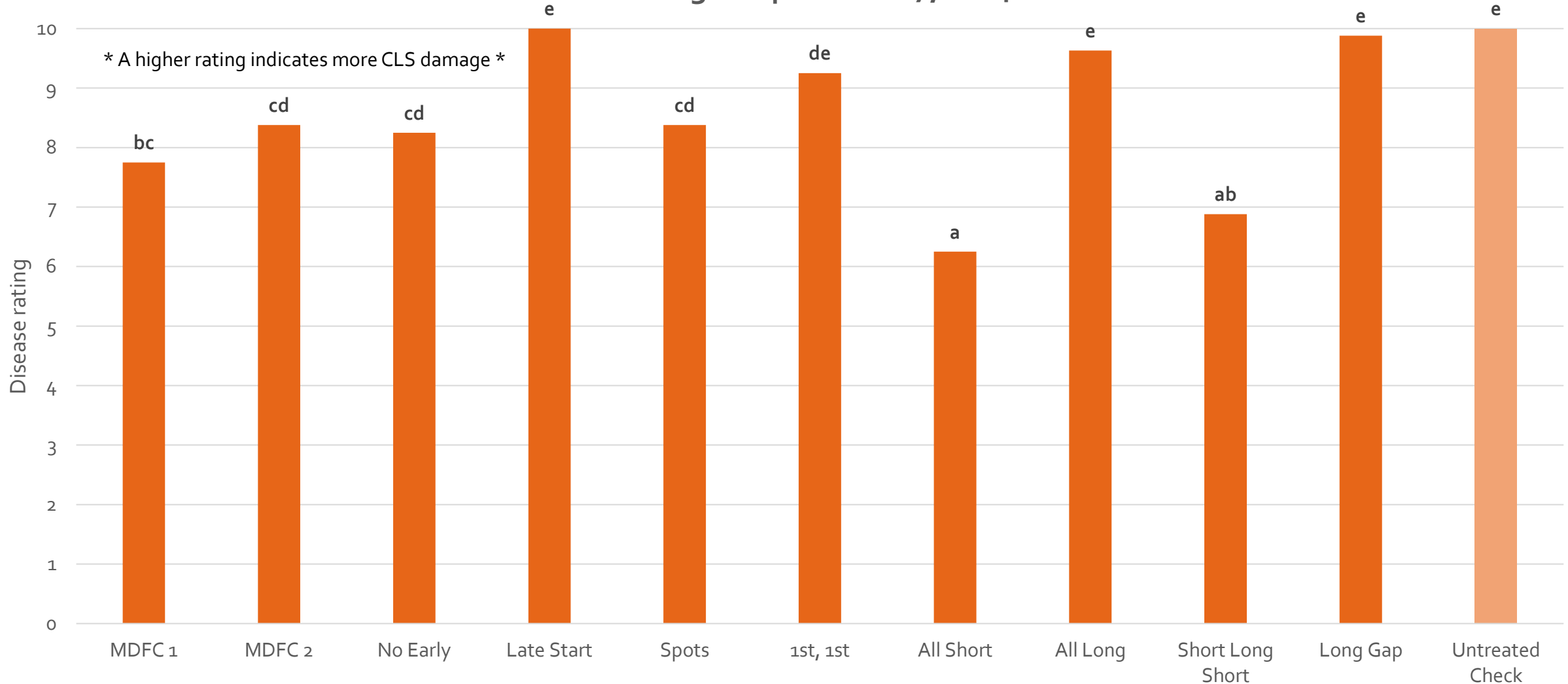
Treatments with the same letter are not statistically different

CLS Fungicide Program ~ Timings

LSD (p=0.10): 1.00
CV: 9.73



CLS Rating – September 17, 2024

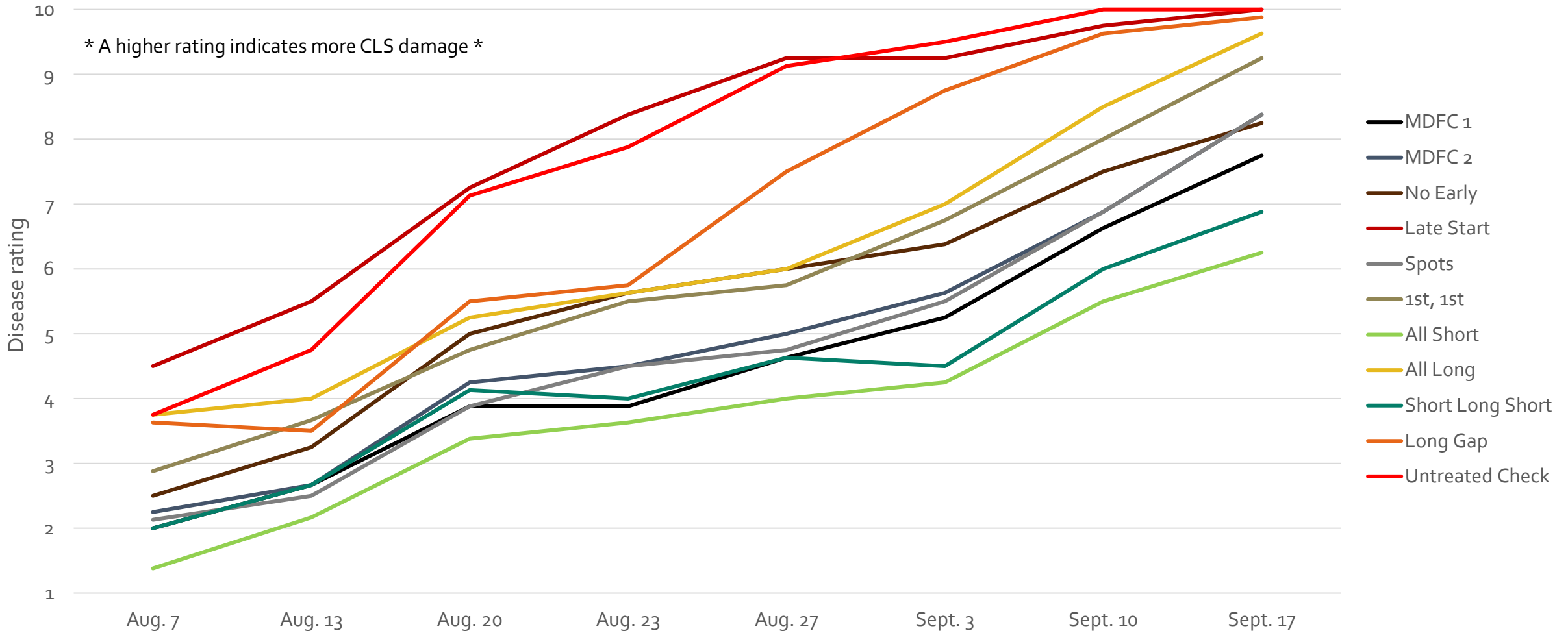


Treatments with the same letter are not statistically different

CLS Fungicide Program ~ Timings



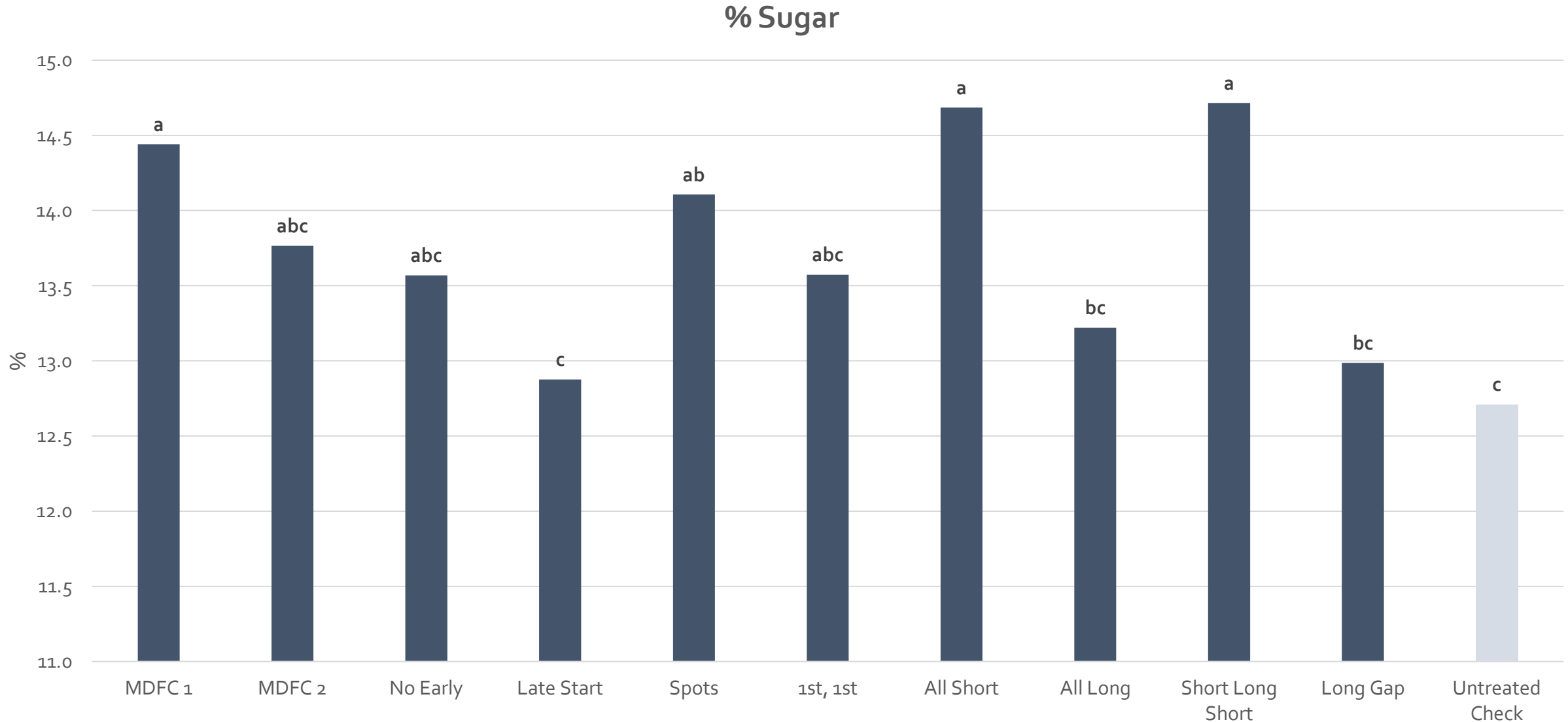
CLS Rating – Season-long



CLS Fungicide Program ~ Timings



LSD (p=0.10): 1.19
CV: 7.24

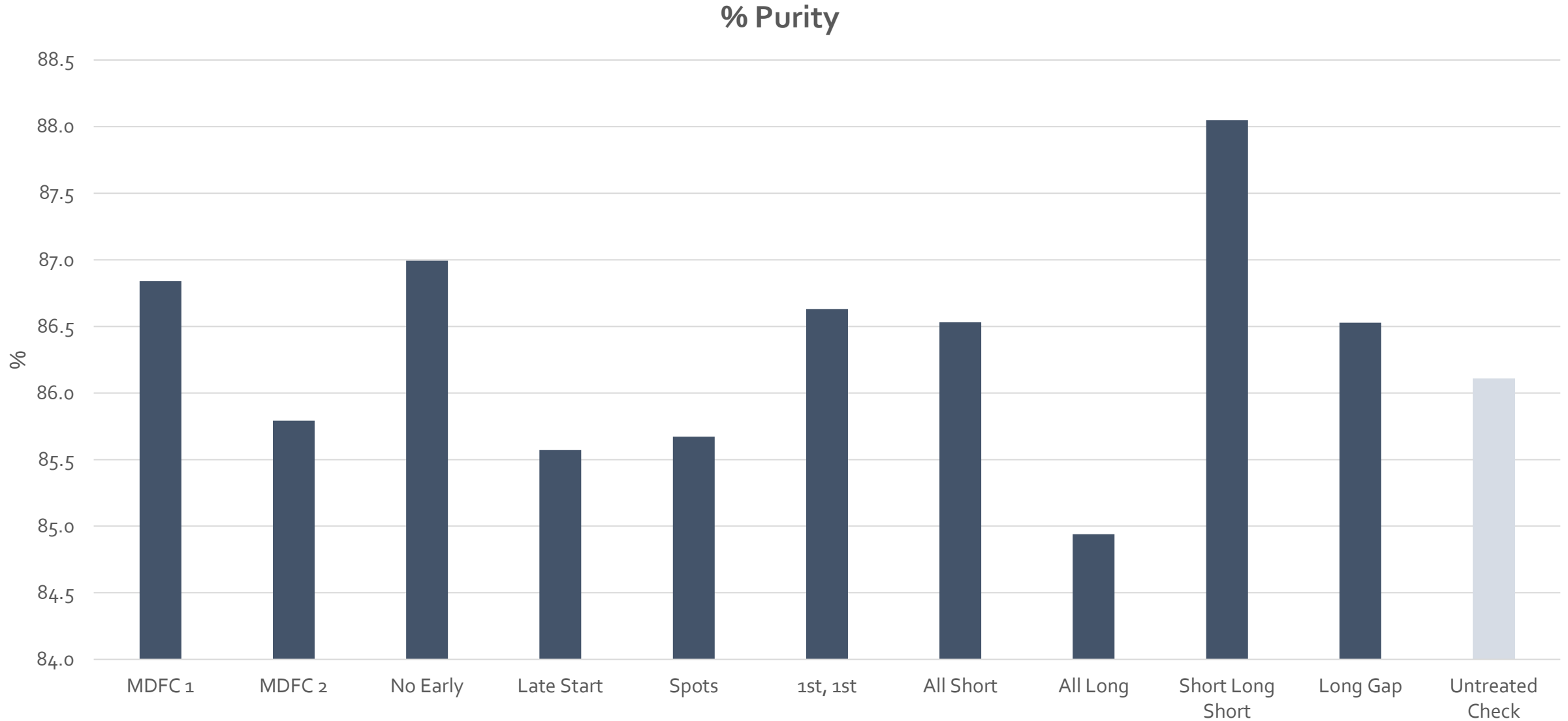


Treatments with the same letter are not statistically different

CLS Fungicide Program ~ Timings



LSD ($p=0.10$): NS
CV: 2.95

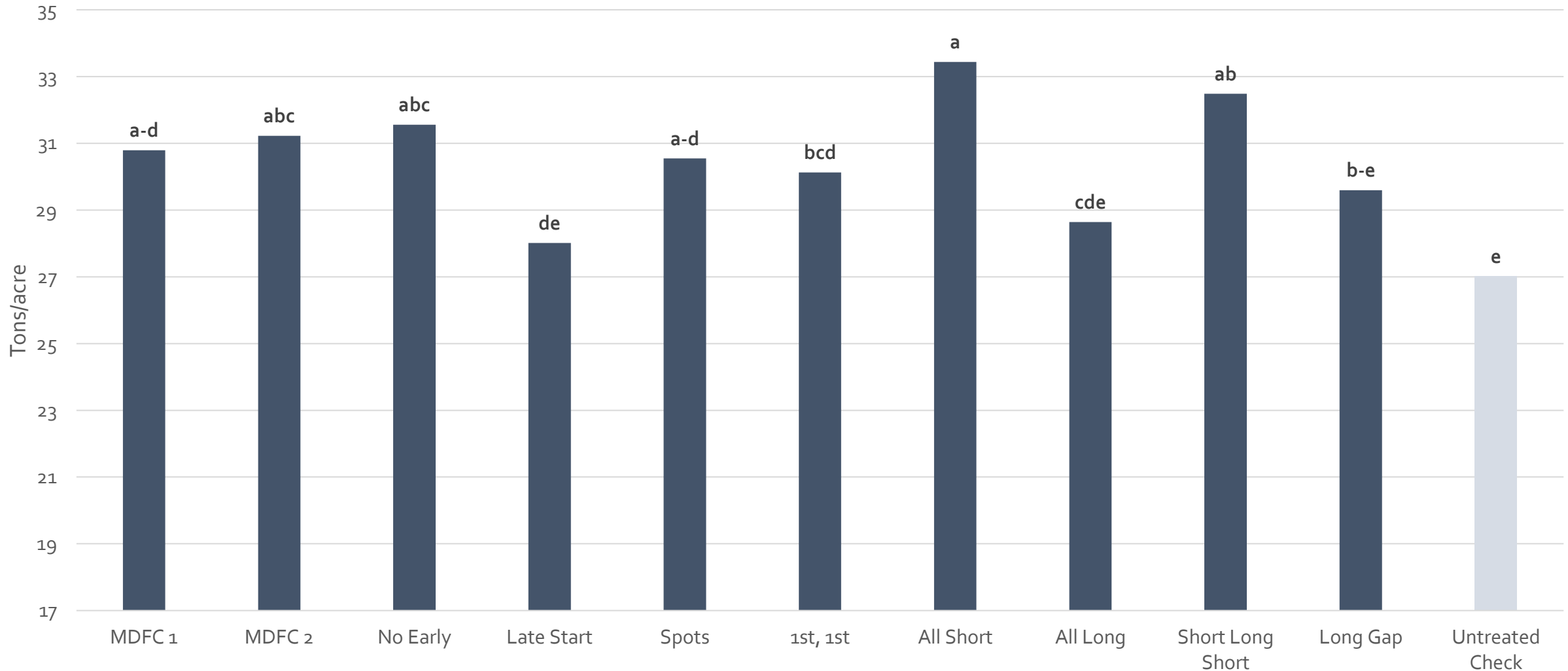


CLS Fungicide Program ~ Timings

LSD (p=0.10): 3.09
CV: 8.49



Root Yield



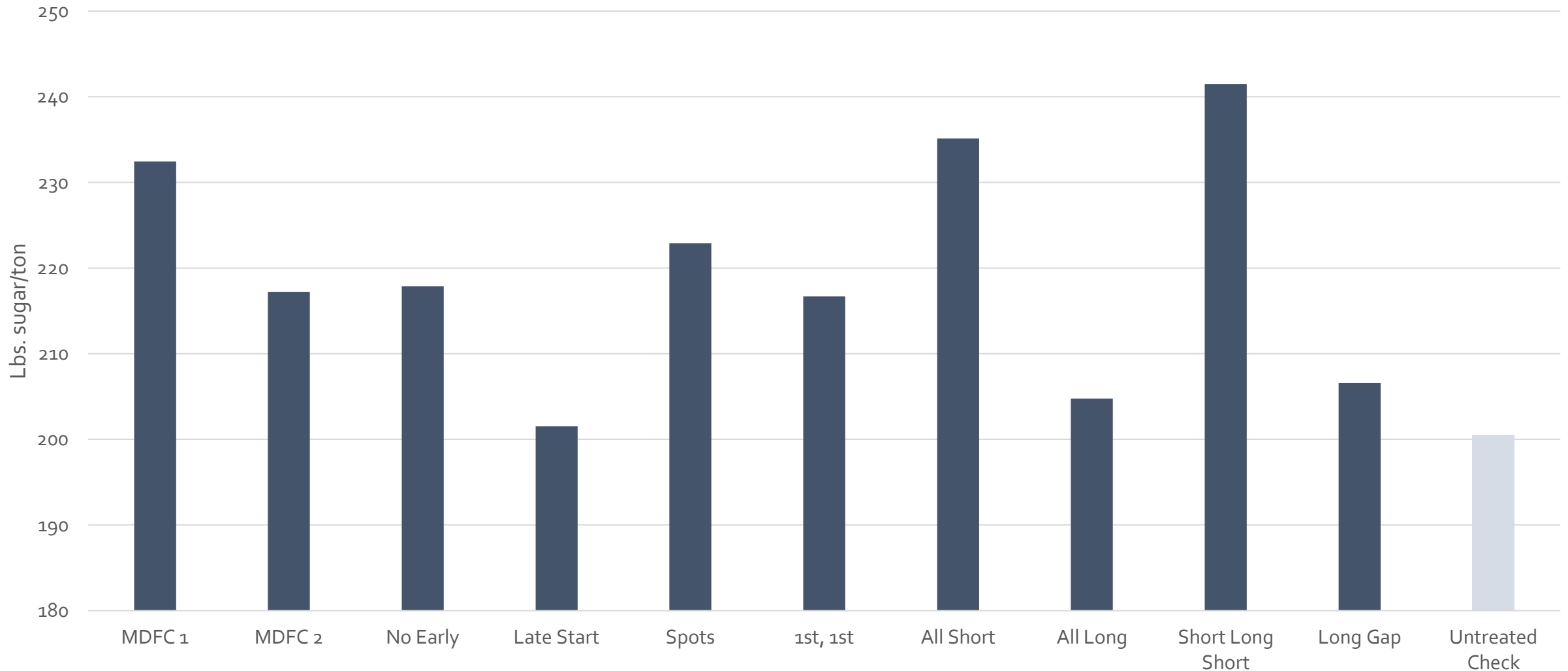
Treatments with the same letter are not statistically different

CLS Fungicide Program ~ Timings

LSD ($p=0.10$): NS
CV: 11.44



Recoverable Sugar per Ton

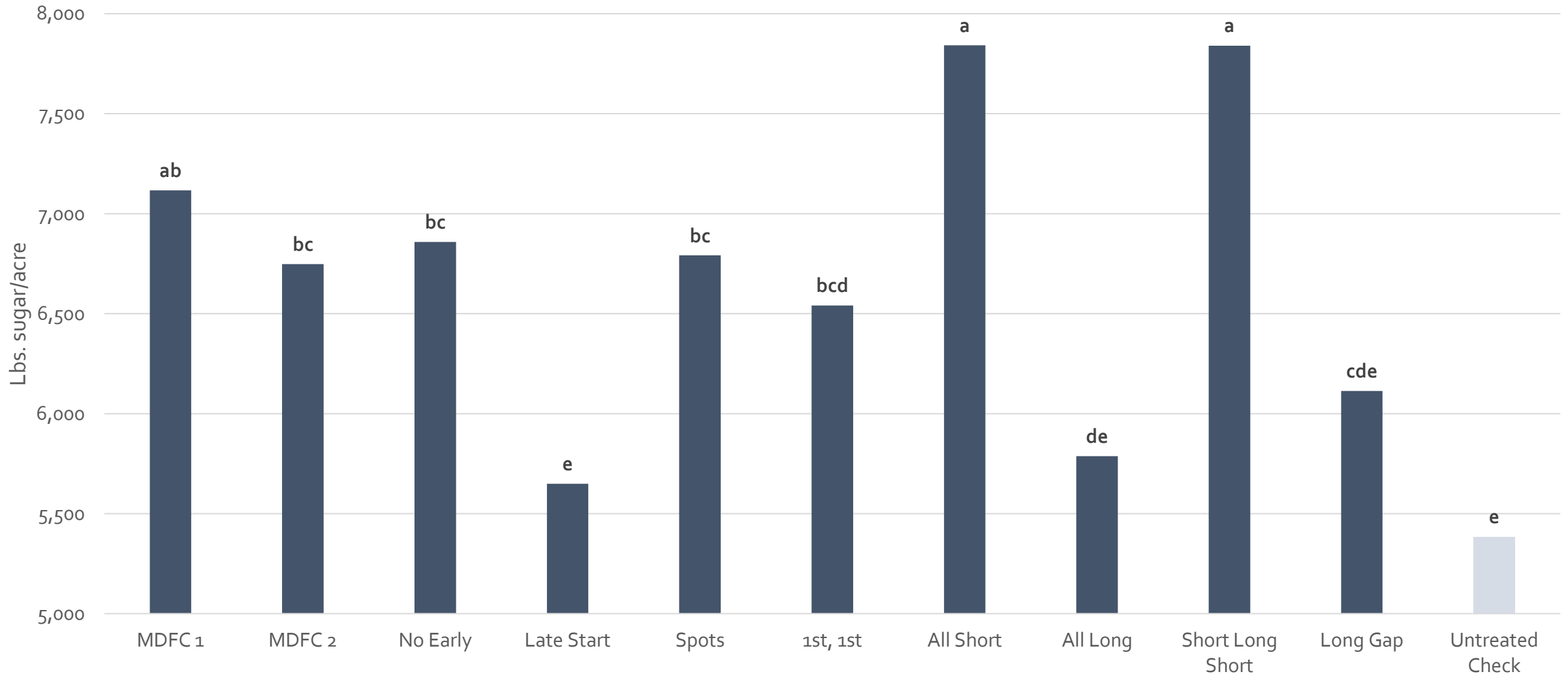


CLS Fungicide Program ~ Timings

LSD (p=0.10): 853
CV: 10.76



Recoverable Sugar per Acre



Treatments with the same letter are not statistically different