

Recommendations for optimizing the control of anthracnose on lentils with fungicides

Michael Wunsch, plant pathologist

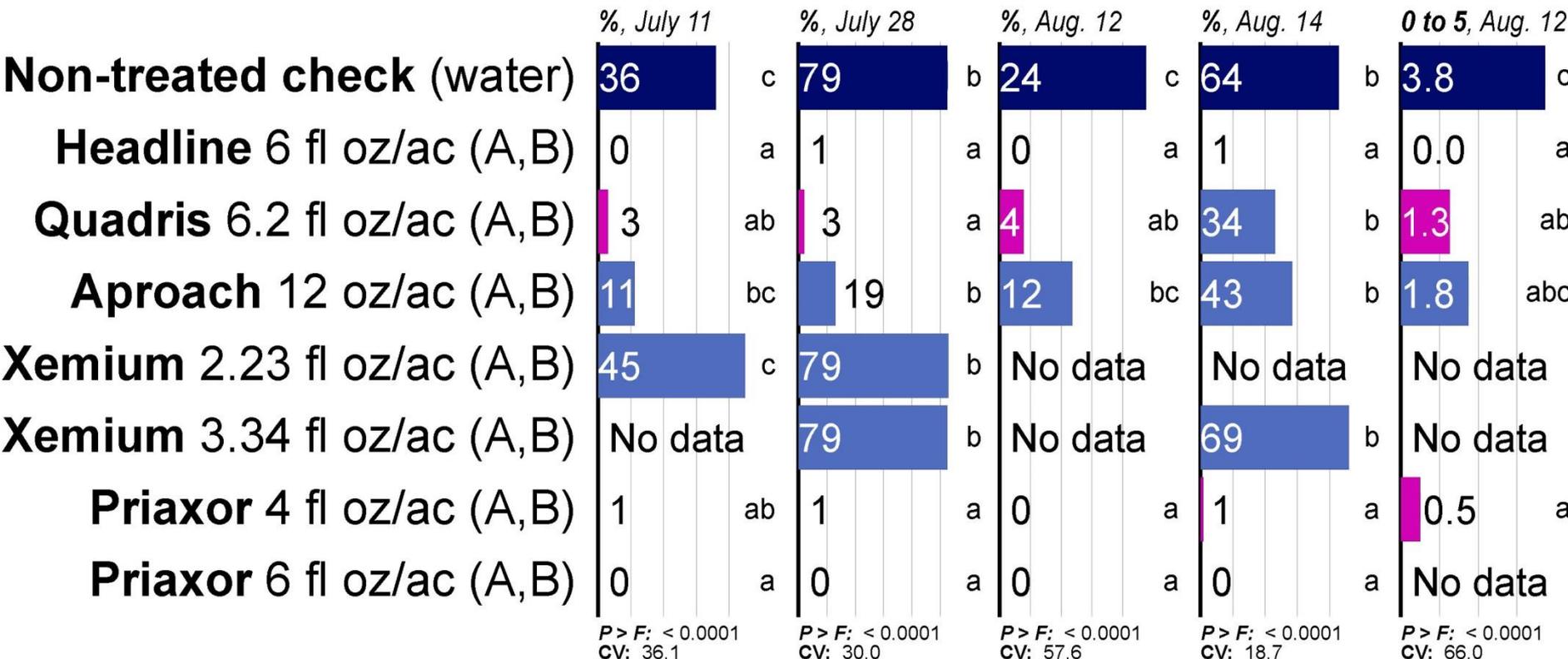
NDSU Carrington Research Extension Center



FUNGICIDE EFFICACY:

Carrington, ND 2012 Sykeston, ND 2012 Williston, ND 2012 Carrington, ND 2013 Williston, ND 2013

ANTHRACNOSE SEVERITY



Aproach: picoxystrobin
Quadris: azoxystrobin

Headline: pyraclostrobin
Xemium: fluxapyroxad

Priaxor: pyraclostrobin + fluxapyroxad

Fungicides applied with 8001VS or 8002VS flat-fan nozzles at 35 or 40 psi in 15 to 20 gal./ac water.

Application A: shortly before canopy closure. **Application B:** 10-14 days later.

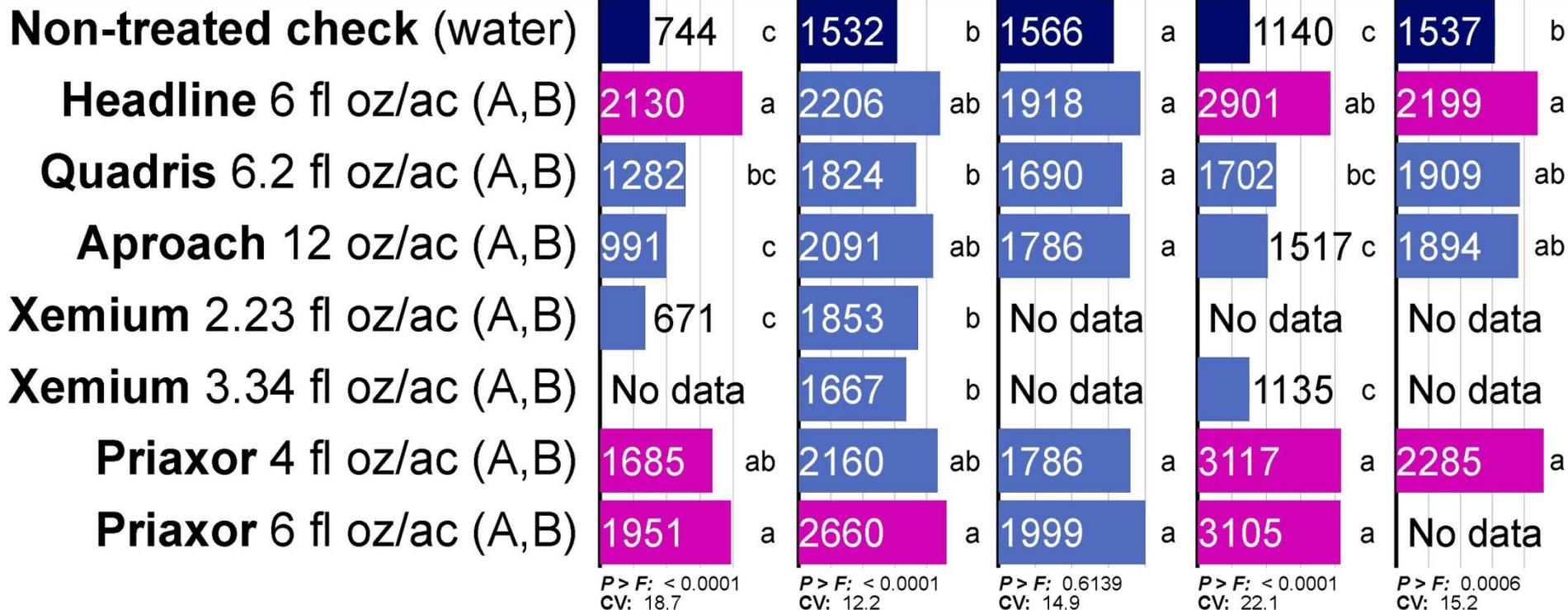
LENTILS

Anthracnose

FUNGICIDE EFFICACY:

Carrington, ND 2012 Sykeston, ND 2012 Williston, ND 2012 Carrington, ND 2013 Williston, ND 2013

YIELD (pounds/acre)



Aproach: picoxystrobin

Headline: pyraclostrobin

Priaxor: pyraclostrobin + fluxapyroxad

Quadris: azoxystrobin

Xemium: fluxapyroxad

Fungicides applied with 8001VS or 8002VS flat-fan nozzles at 35 or 40 psi in 15 to 20 gal./ac water.

Application A: shortly before canopy closure. Application B: 10-14 days later.

Anthracnose

CHEMICAL CONTROL OF ANTHRACNOSE:

QoI (FRAC 11; strobilurin) **fungicides differ in efficacy.**

- **Headline** (pyraclostrobin) is more effective than **Quadris** (azoxystrobin) or **Approach** (picoxystrobin).

Anthracnose

CHEMICAL CONTROL OF ANTHRACNOSE:

QoI fungicides differ in efficacy.

- **Headline** (pyraclostrobin) is more effective than **Quadris** (azoxystrobin) or **Approach** (picoxystrobin).

Headline is better than Priaxor:

Fluxapyroxad has no efficacy against anthracnose on lentils.

The low application rate of Headline (6 fl oz/ac) contains more pyraclostrobin than the low application rate of Priaxor (4 fl oz/ac):

- Low rate of Headline = 6 fl oz/ac = 44.4 g/ac pyraclostrobin
- Low rate of Priaxor = 4 fl oz/ac = 39.4 g/ac pyraclostrobin + 19.8 g/ac fluxapyroxad

The high application rate of Headline (9 fl oz/ac) contains more pyraclostrobin than the high application rate of Priaxor (6 fl oz/ac)

- High rate of Headline = 9 fl oz/ac = 66.6 g/ac pyraclostrobin
- High rate of Priaxor = 6 fl oz/ac = 59.1 g/ac pyraclostrobin + 29.6 g/ac fluxapyroxad

The fluxapyroxad component of Priaxor may provide value for controlling *Ascochyta* blight or *Botrytis* gray mold, but little or no efficacy data are available for fluxapyroxad against these diseases on lentils.

Anthracnose

CHEMICAL CONTROL OF ANTHRACNOSE:

Qol fungicides differ in efficacy.

- **Headline** (pyraclostrobin) is more effective than **Quadris** (azoxystrobin) or **Approach** (picoxystrobin).

Headline is better than Priaxor:

Fluxapyroxad has no efficacy against anthracnose.

- Low rate of Headline = 6 fl oz/ac = 44.4 g/ac pyraclostrobin
- High rate of Headline = 9 fl oz/ac = 66.6 g/ac pyraclostrobin
- Low rate of Priaxor = 4 fl oz/ac = 39.4 g/ac pyraclostrobin + 19.8 g/ac fluxapyroxad
- High rate of Priaxor = 6 fl oz/ac = 59.1 g/ac pyraclostrobin + 29.6 g/ac fluxapyroxad

Fungicide resistance management:

Not many tools are available at this time.

- **Omega** (fluazinam) provides satisfactory control, but registration will be in 3 years.
- DMI (FRAC 3; **Proline, Quash**) and SDHI (FRAC 7; **Endura, Vertisan**) fungicides have no efficacy against anthracnose on lentils
- **Bravo Weather Stik, Echo 720, etc.** (chlorothalonil) is the only alternative to Qol fungicides