**Introduction**

- Due to sandy soils, approximately 50% of Delaware corn acreage is irrigated.
- A major disease in corn production is *Cercospora zeae-maydis*, also known as gray leaf spot (GLS).
- High planting populations, and humid canopies favor infection by GLS (Fig 1)
- The most common practice in irrigated corn for managing this disease is an aerial fungicide application during the R1 growth stage.
- Growers have expressed interest in fungicide applications via center pivot (fungigation).
- In 2021, Xyway LFR (active ingredient flutrifol) was labeled for in-furrow and 2x2 applications.

**Objective**

Investigate the efficacy of four fungicide application methods, and in-season combinations of them.

**Methods**

- In 2021, a trial was established at the UD Warrington Irrigation Farm to compare the efficacy of four application methods, and in-season combinations (Table 1).
- The trial was established in 90’ x 90’ randomized plots with each block containing two hybrids (63P75RIB and 64B28RIB).
- Disease severity was visually assessed at the R5 growth stage as percent of ear leaf covered in GLS lesions.
- Yield was documented with an Allis-Chalmers Gleaner K2 combine at the end of the season.

**Results**

- In both hybrids, all treatments significantly reduced disease severity compared to the control (p<0.0001)(Fig 2).
- Aerial only, in furrow followed by aerial, and 2x2 followed by aerial treatments had lowest disease (Fig 2).
- In hybrid 63P75RIB, treatment yields were higher than the no fungicide control in all treatments except for in-furrow only and fungigation only (p=0.04)(Fig 3).
- All treatments, except 2x2 only, had higher yield than the control (p=0.02) (Fig 3).

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**References**

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