



2025 Red sunflower seed weevil Efficacy results from South Dakota

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INTRODUCTION

Red sunflower seed weevils are an annual pest of sunflower in South Dakota. Red sunflower seed weevil larvae may infest up to 80% of the achenes on a head and cause yield loss. The current management strategy for this pest is foliar applied pyrethroids.

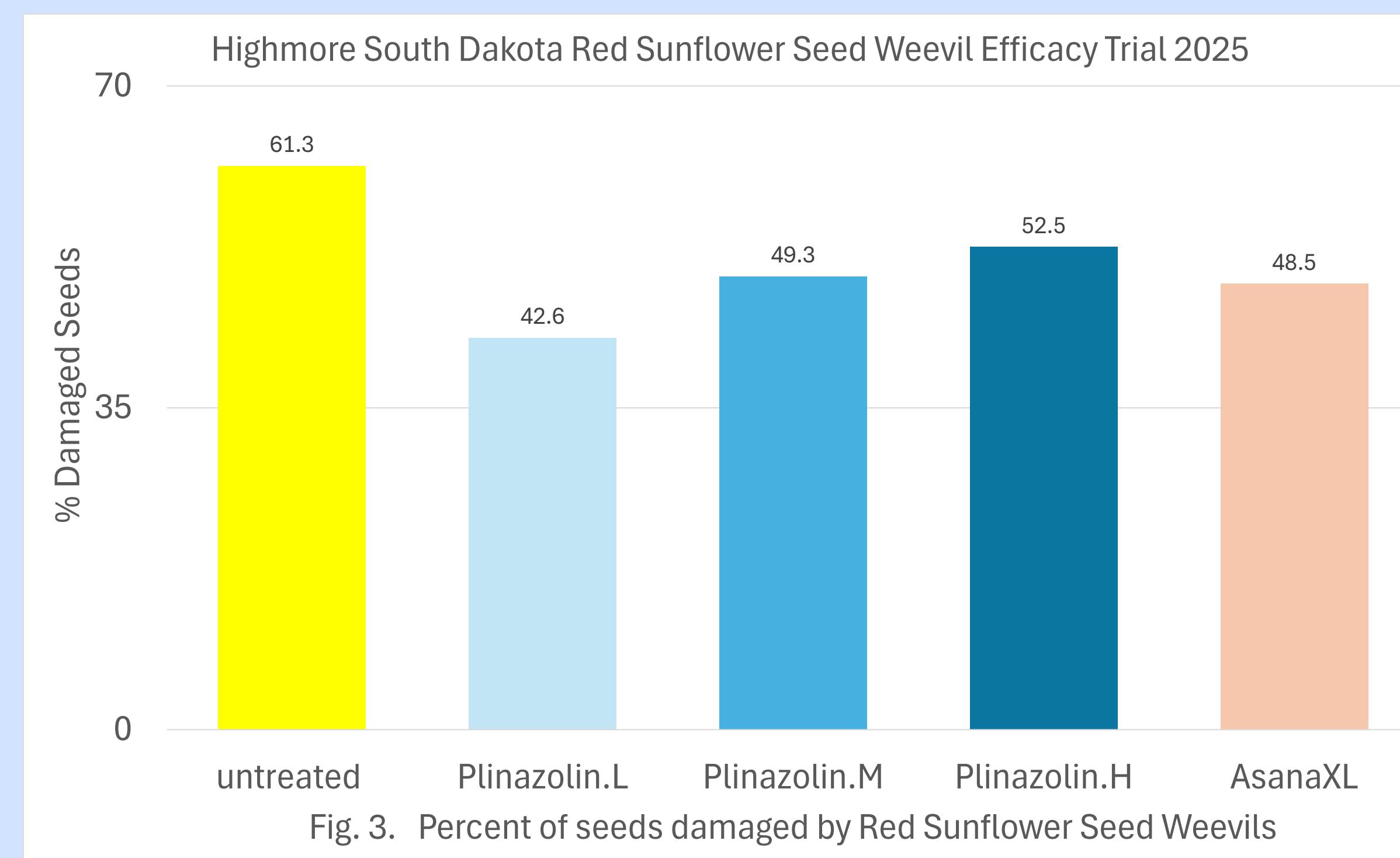
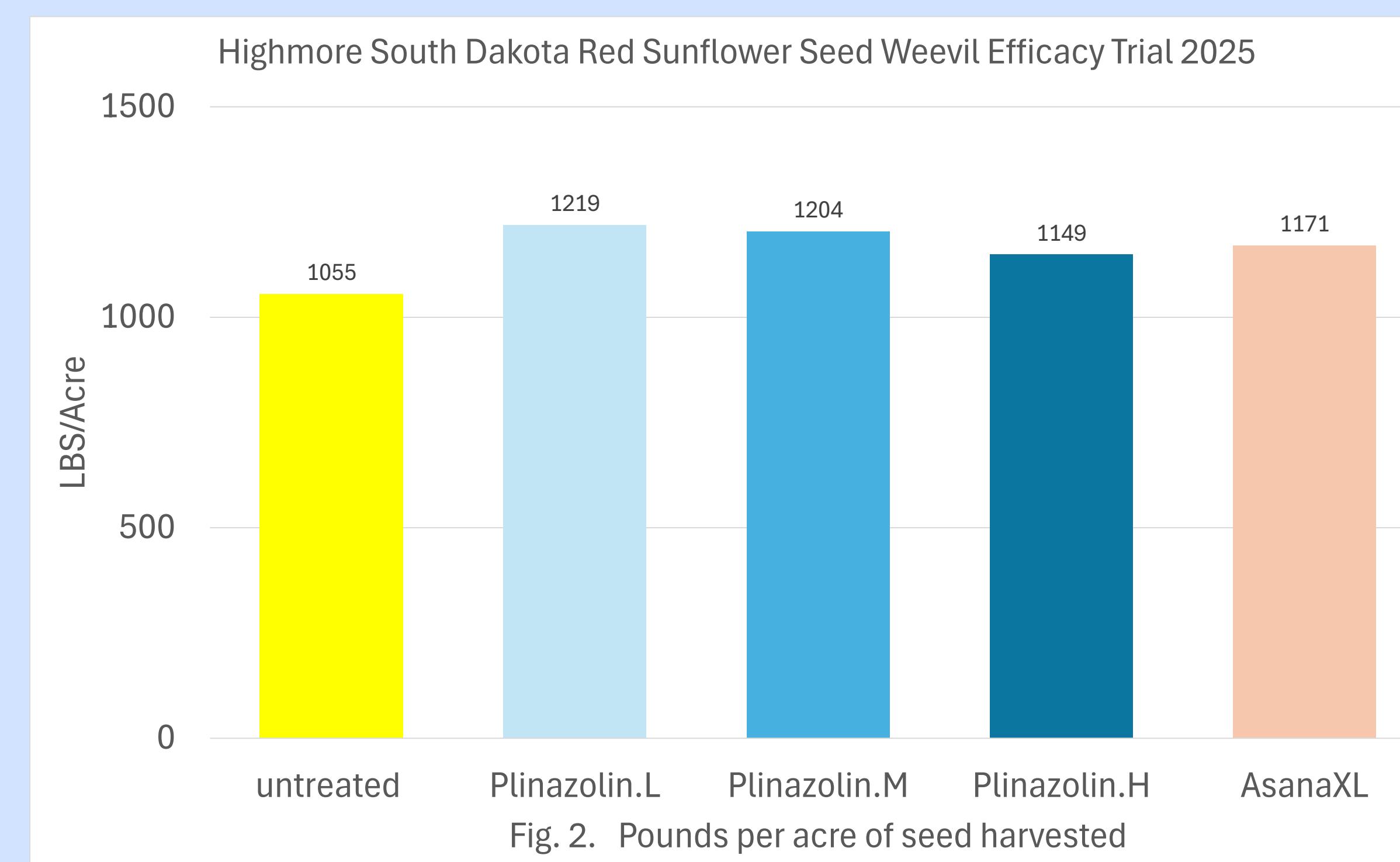
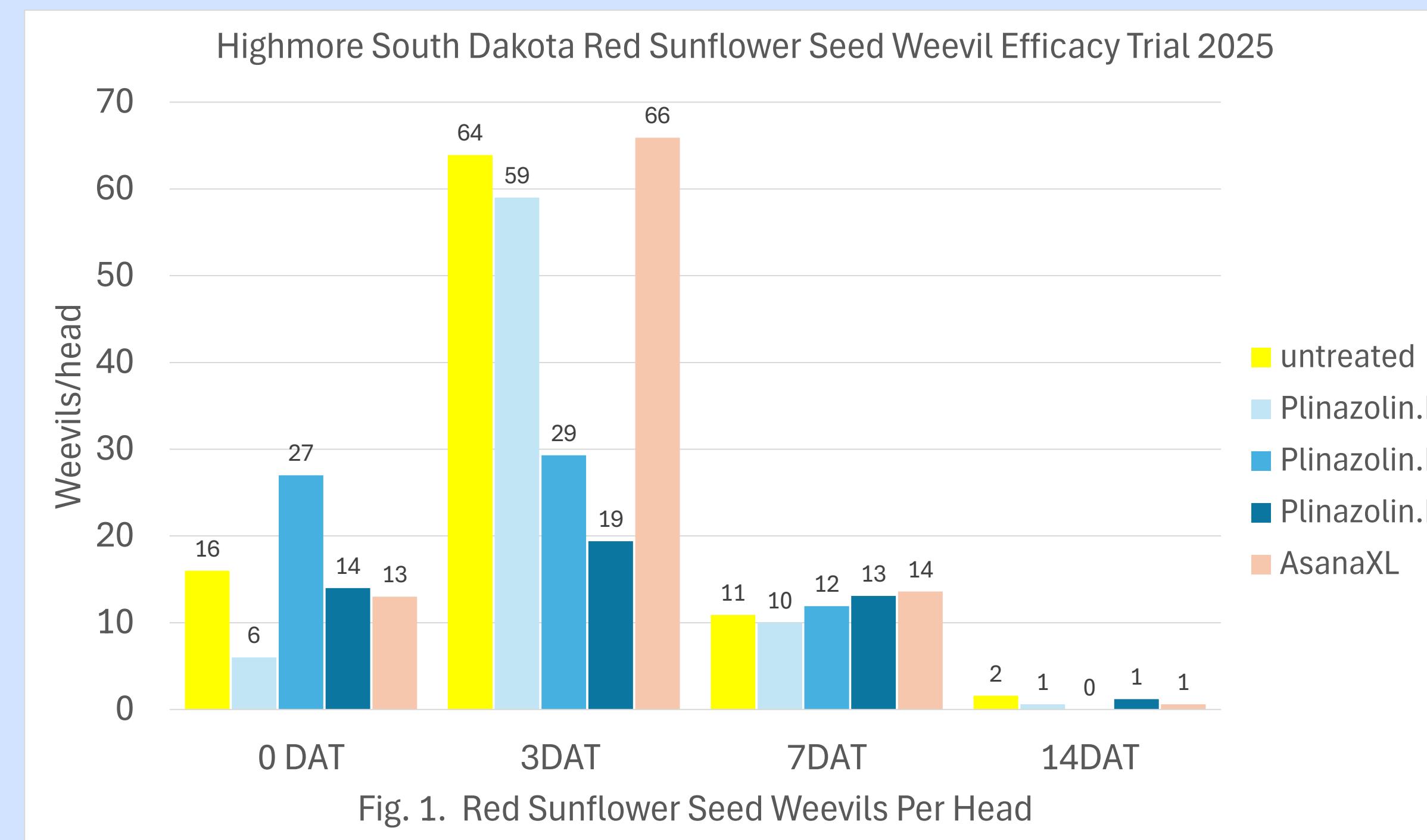


OBJECTIVES

- Evaluate the susceptibility of red sunflower seed weevils to insecticides
 - Plinazolin
 - Asana XL (Esfenvalerate)

Materials and Methods

- Planted on June 3rd
- Spray trial was conducted near Highmore South Dakota on Aug 12th, 2025.
- Insecticides application
 - 15 GPA using a Lee Agri highboy sprayer with a SRES spray boom.
- Plinazolin insecticide was applied at 3 rates
 - 1.1, 1.6, 2.0 Fl oz/acre
- Asana XL at 2.0 Fl oz/acre
- 2 heads per replication were sampled for live red sunflower seed weevils at 0 days after treatment, 3, 7, and 14 DAT.
- Damaged seeds: 100 Sunflower seed were randomly chosen from a subsample collected from the combine



Results

Fig. 1. Red sunflower seed weevil counts were not significantly different for treatments at 0, 3, 7, or 14 DAT. However, 3DAT counts were nearly significantly different for treatments $P = 0.0553$. Plinazolin at @ 2.0 Fl oz/acre had 3.1-fold fewer weevils than the 1.1 rate and 1.5-fold less than the 1.6 of rate.

Fig. 2. Harvested pounds/acre were not significantly different by treatment. $P = 0.8890$

Fig. 3. Seeds damaged from seed weevils were not significantly different by treatment. $P = 0.1105$

Conclusions

Data from 2025 indicates reduced red sunflower seed weevil susceptibility to tested insecticides.

