Two species of weeds (foxtail barley and green foxtail) and one variety of winter wheat (SY Ovation) were planted in the greenhouse. Three-week-old plants were moved to growth chambers (16:8 hours of light and dark, 25C during light and 20C during dark) with ambient (400ppm) or elevated (700ppm) levels of CO2. After 1 week, plants were infested with aphids. A clip cage containing 3 adult aphids that were BYDV (+) was placed on the most recent fully emerged leaf. After 4 days, the clip cage was removed, and aphid adults and nymphs were counted. Aphids were then manually removed from the leaves. Leaf tissue was collected 2 weeks after aphid removal using the liquid nitrogen method. Photosynthetic measurements were taken 2 days later, and plants were harvested and dried to determine dry roots and shoot weights.

Block 1:

Dec 20, 2019- planted weeds

Jan 15, 2020- transplanted weeds to pots

Jan 20, 2020- planted wheat in pots

Jan 31, 2020- plants transferred to growth chambers

Feb 3- CO2 treatments set

Feb 14- plants infested with aphids (after 11 days in gc)

Feb 18- aphids counted (after 4 days)

Feb 26, Feb 27- Photosynthetic measurements taken

Feb 28- plants harvested

Block 2:

Jan 29, 2020- weeds seeded in trays

Feb 29- Wheat seeded in pots

March 18- plants transferred to growth chambers

March 20- CO2 treatments set

March 26- infested with aphids (after 6 days in gc)

March 30- aphid counts (after 4 days)

April 13, April 14- tissue collection

April 16, April 17- photosynthetic measurements taken

April 16-20- harvested plants