

Supplement Figure 1. Relationship between RyeBR:RyeVetchBR compared to (A) early corn biomass collected 36 and 45 DAP in 2012 and 2013, respectively (B) early weed whole plot (WP) biomass collected 48 and 45 DAP in 2012 and 2013, respectively; and (C) early sweet corn competitiveness against weeds (measured as the ratio of early corn biomass: early weed biomass). All corn and weed data were collected from low weed management subplots. Early sweet corn competitiveness was square-root transformed to increase normality. Rye and vetch spatial arrangement treatments include mixed (MIX) and segregated (SEG) in both 2012 (blue, dashed) and 2013 (red, dotted), and treatment symbols include: MIX 2012 ( ); SEG 2012 (), MIX 2013 (), and SEG 2013 (). Regression lines show the predictions of linear mixed models examining the slope of X (RyeBR:RyeVetchBR ratio), the intercept of Year, and the slope for the interaction of X\*Year. Equations for regression lines are: B) 2012: y=-0.22+3.2x. NS= not significant at *P*>0.1.



Supplement Figure 2. Relationship between RyeBR:RyeVetchBR (left) and VetchIR:RyeVetchIR  (right) compared to (A-B) final sweet corn biomass which includes both nonharvested and harvested sweet corn at harvest; (C-D) total weedWP biomass summed over three timepoints throughout the sweet corn season; and (E-F) sweet corn competitiveness against weeds (measured as the ratio of final corn biomass: total weed biomass). All sweet corn and weed data were collected from low weed management subplots. To increase normality, total weed biomass was log-transformed and sweet corn competitiveness was square-root transformed for analyses. Rye and vetch spatial arrangement treatments include mixed (MIX) and segregated (SEG) in both 2012 (blue, dashed) and 2013 (red, dotted), and treatment symbols include: MIX 2012 ( ); SEG 2012 (), MIX 2013 (), and SEG 2013 (). NS= not significant at *P*>0.1.