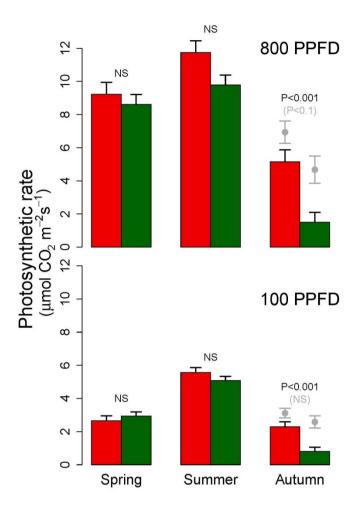
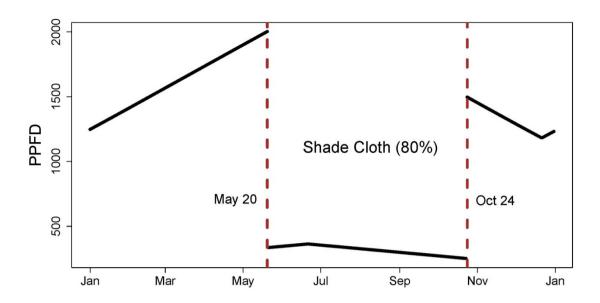


**Figure S1**. Spring heat accumulation (cumulative growing degree-days) at the experimental garden in 2008, 2009, and 2010, calculated with daily minimum and maximum temperature data using a base of 10 °C. Dashed lines delimit weeks after March 1. Temperature data were collected with an aspirated digital thermometer located at 1 m height.



**Figure S2.** Net photosynthetic rate for native and non-native species for light curve measurements taken in spring (before shade cloth placement, May 20), summer, and autumn (after shade cloth removal, Oct 24). Top and bottom panels show mean (±SE) native (green, N=43) and non-native (red, N=30) responses to light levels of 800 and 100 photosynthetic photon flux density (PPFD, μmol photon m<sup>-2</sup>s<sup>-1</sup>), averaged over 2008-2010. Bars include all species; species lacking autumn leaves were given values of 0. Gray symbols indicate mean (±SE) rates for only those species with live leaves in autumn (native N=13, non-native N=21). P values describe native-nonnative contrasts for each season from a linear mixed model including species and season as random effects (see *Methods*).



**Figure S3.** Seasonal distribution of maximum daily photosynthetic photon flux density (PPFD, μmol photon m<sup>-2</sup>s<sup>-1</sup>) used in C gain models.