**Figure captions**

**SCOTT VALLEY**

**sv\_biomass\_bar\_cut1&2\_2015.pdf**

Dry alfalfa biomass yields from first and second cutting at Scott Valley site. No differences in biomass produced across levels of total applied water in first cutting. There was a significant decline in biomass across the field for the second cutting. Error bars show one standard error of the mean of n=8 replicate quadrats per treatment with a total of 32 independent observations per cutting.

**sv\_plantcount\_bar\_cut1\_2015.pdf**

Live plant (crown) count from first cutting at Scott Valley site. Plant counts were not significantly different across the different experimental conditions. Error bars show one standard error of the mean of n=8 replicate quadrats per treatment with a total of 32 independent observations per cutting. Plant counts are inversely correlated with weed biomass and alfalfa plant count is correlated with total dry biomass.

**sv\_weedbio\_bar\_cut1\_2015.pdf**

Weed biomass from first cutting at Scott Valley site. Weed biomass was not significantly different across experimental conditions. Error bars show one standard error of the mean of n=8 replicate quadrats per treatment with a total of 32 independent observations per cutting. Plant counts are inversely correlated with weed biomass. Increased plant count is inversely correlated with weed biomass.

**sv\_no3\_bar\_before&july\_2015.pdf**

Soil near-surface NO3-N concentrations from before treatments (September 2014) in July 2015 after treatments. Before data represents the mean +/- one standard error of n = 8 replicates spread across the field. After treatment data reflect the standard error of the mean of n=3 replicates.

**Figure captions**

**C TRACT**

**ct\_biomass\_bar\_cut1\_2015.pdf**

UC Davis Plant Science research farm C tract alfalfa plots flooded at three different time intervals during the winter. Plots recieved a 'low’ (4 ft) or 'high' (6 ft) amount of water during that interval. Water was applied in 1 ft/day events, with the high treatments spanning two weeks and the low treatments only 1 week. Control (non-flooded) plots were included. Experiment was laid out as a randomized complete block design with three replicates. Alfalfa biomass was determined in three quadrats per replicate plot, for a total of n=9 observations per treatment. Error bars show one standard error about the mean value for each treatment. The impacts of the flooding (timing or total applied volume) were not discernible based on the natural variation in the old stand at the site. The yield was low for all plots overall but this was independent of treatment effects.