**Supplemental Materials**

**Figure S1.** Mean monthly temperature and total monthly precipitation over the duration of the study at a weather station located 5 km from the study site.



**Figure S2**. Cover crop biomass (dry weight) each year of the Summer Experiment conducted at the University of New Hampshire Kingman Research Farm in Madbury, NH. Data are means ± SE, n = 4. ANOVA was performed on log-transformed biomass values; Year\*Treatment interaction, F = 6.4; P < 0.0001. Within a year, treatments are arranged in order of decreasing biomass and bars sharing the same letter are not significantly different at P < 0.05 (LS Means). Untransformed data are presented in the figure. Monocultures are designated with grey bars and mixtures are black bars.



**Figure S3**. Cover crop biomass (dry weight) each year of the Fall Experiment conducted at the University of New Hampshire Kingman Research Farm in Madbury, NH. Data are means ± SE, n = 4. ANOVA was performed on log-transformed biomass values; Year\*Treatment interaction, F = 3.6; P = 0.0002. Within a year, treatments are arranged in order of decreasing biomass and bars sharing the same letter are not significantly different at P < 0.05 (LS Means). Untransformed data are presented in the figure. Monocultures are designated with grey bars and mixtures are black bars.



**Figure S4**. Cover crop biomass (dry weight) each year of the Spring Experiment conducted at the University of New Hampshire Kingman Research Farm in Madbury, NH. Data are means ± SE, n = 4. ANOVA was performed on log-transformed biomass values; Year 1: Treatment, F = 17.5; P < 0.0001; Years 2-3: Year\*Treatment interaction, F = 2.5; P = 0.037. Within a year, treatments are arranged in order of decreasing biomass and bars sharing the same letter are not significantly different at P < 0.05 (LS Means). Untransformed data are presented in the figure. Monocultures are designated with grey bars and mixtures are black bars.

