Supplementary materials for “Incorporation of winter grasses suppresses summer weed germination and affects inorganic nitrogen in flooded paddy soil” by Utami et al. (MS. No. SSPN-19-179-F).





Supplementary material 3



**Figure S1.** Concentration of NH4+-N NO3--N in the soil after the incorporation of foxtail (*Alopecurus aequalis*) (A) and (C), and of milk vetch (*Astragalus sinicus*) (B) and (D), respectively. Bars indicate standard errors (n = 4). Different letters indicate a significant difference among the five treatments (*P* < 0.05; Duncan’s multiple range test). Upper-case letters represent differences in the top-layer and lower-case letters represent differences in the sub-layer.