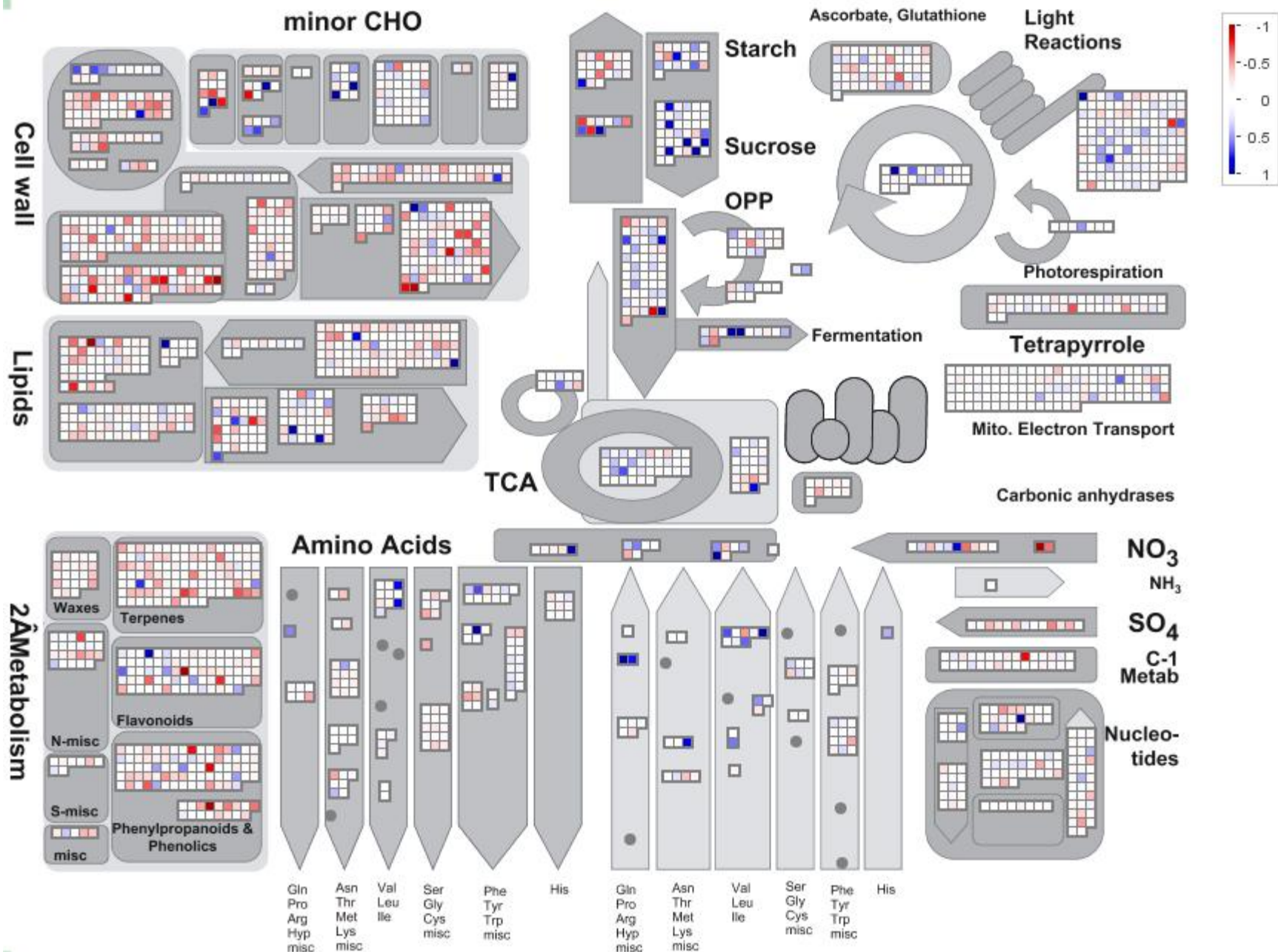
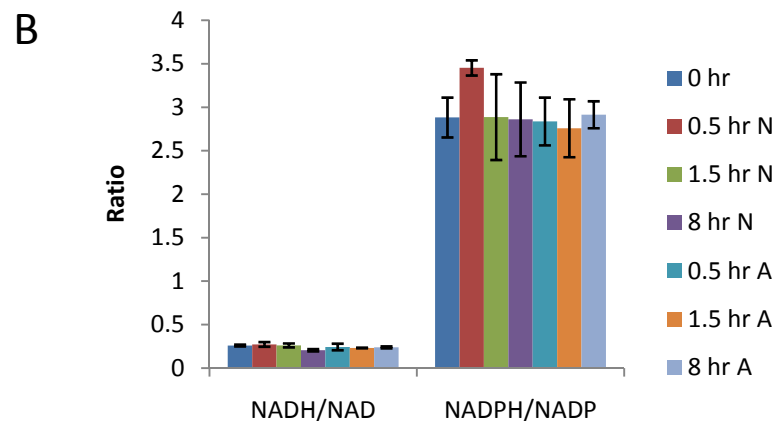
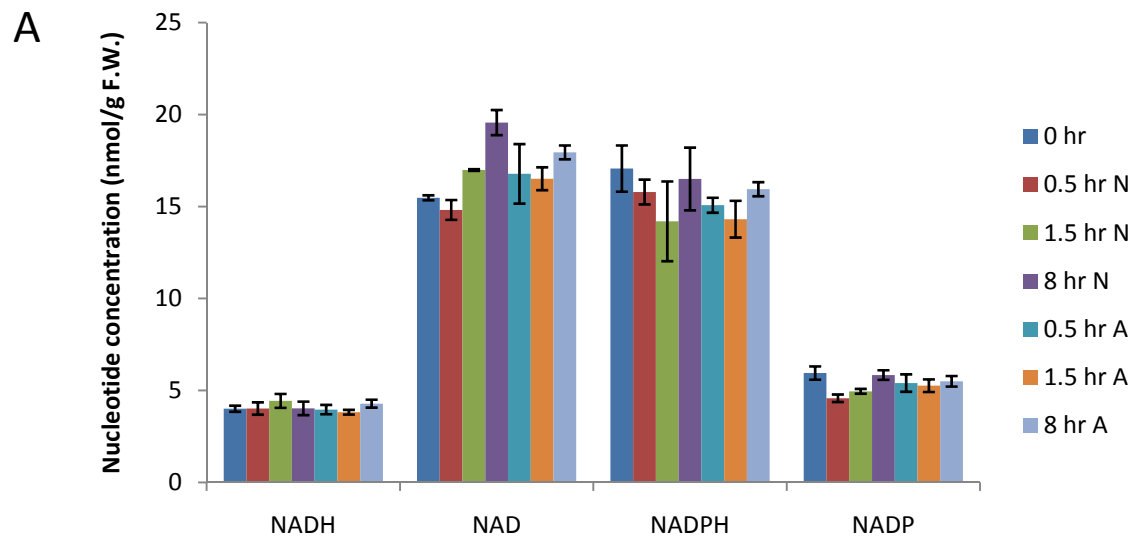


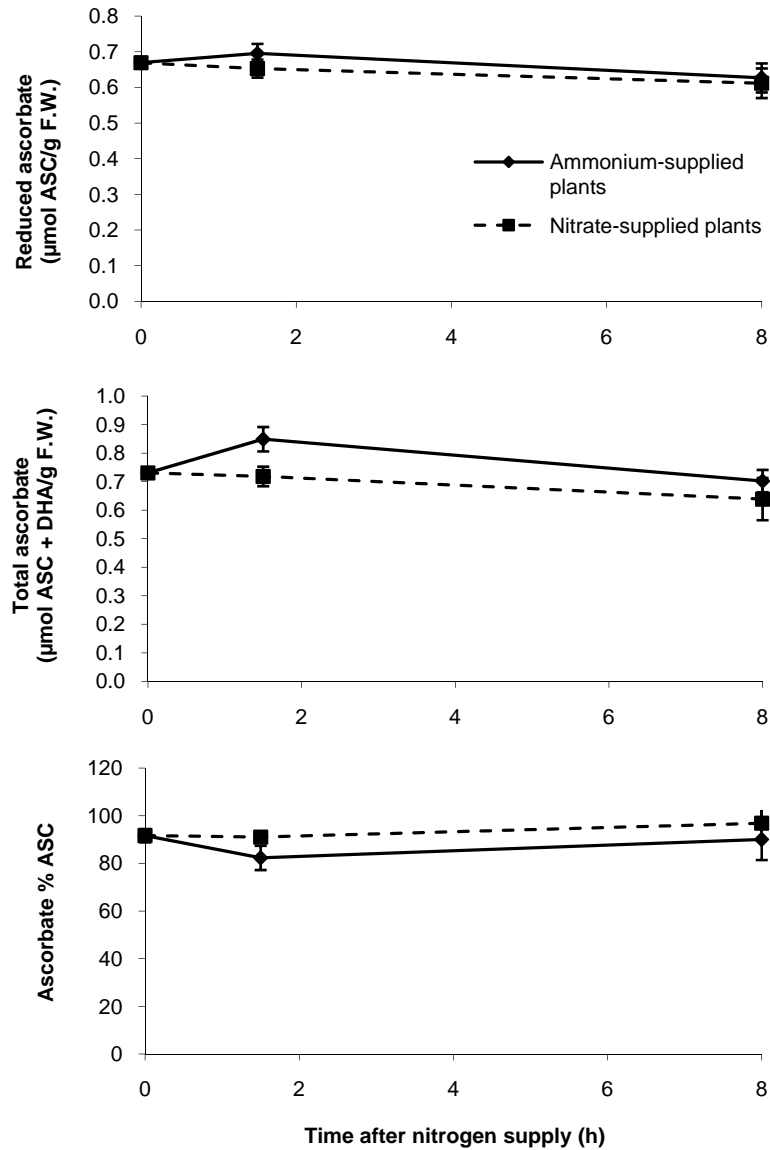
Supplemental Figure S1: Overlay of expression data from the nitrate-specific gene set combined with genes displaying no significant change in expression (all 8 h time point) onto a metabolic overview map using MapMan software (Usadel et al., 2005). Note that the values on the scale are \log_2 transformed.



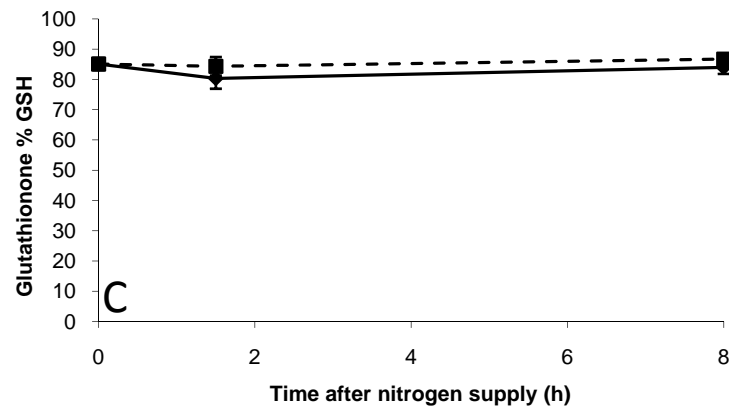
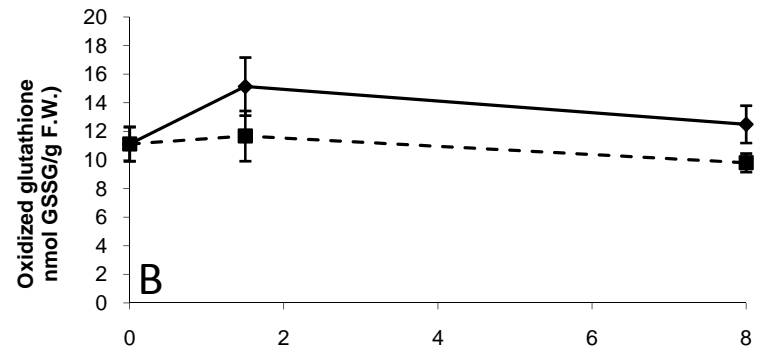
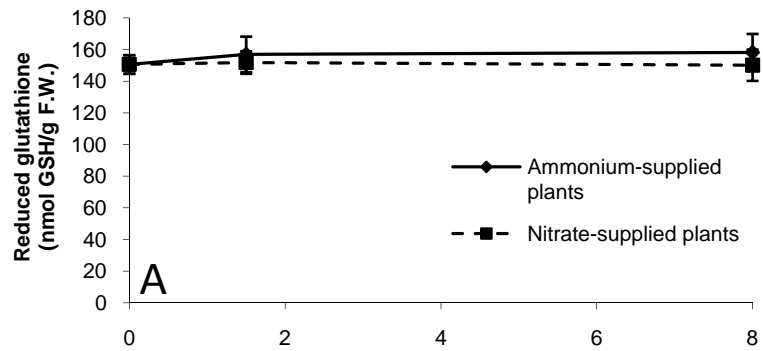
Supplemental Figure S2: Overlay of expression data from the ammonium-specific gene set combined with genes displaying no significant change in expression (all 8 h time point) onto a metabolic overview map using MapMan software (Usadel et al., 2005). Note that the values on the scale are \log_2 transformed.



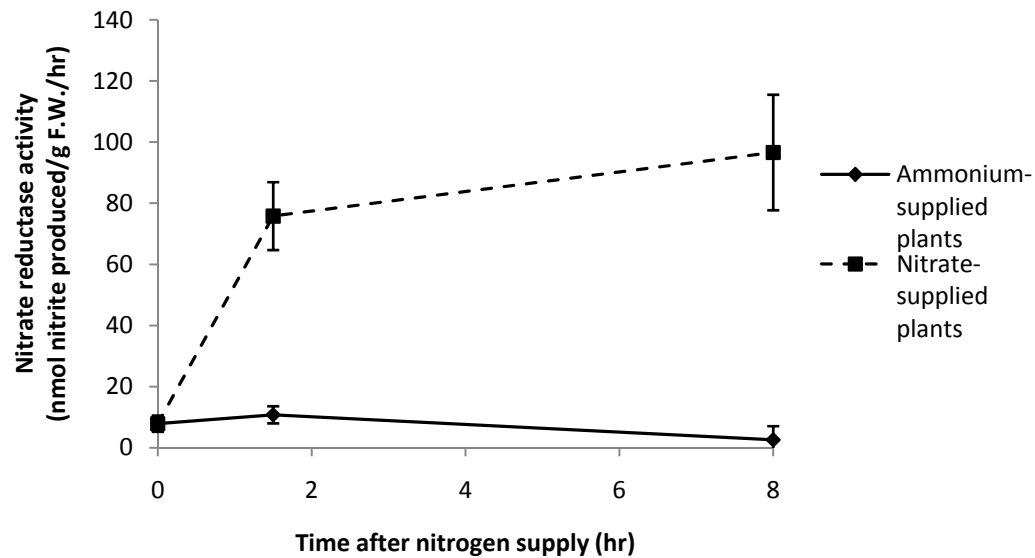
Supplemental Figure S3: Determination of the concentration and oxidation state of the NAD(H) and NADP(H) pools in *Arabidopsis* roots. Nitrogen-limited plants were supplied with either ammonium (A) or nitrate (N) for the time periods indicated. Panel A displays absolute concentrations of NAD(H) and NADP(H) and panel B displays the ratio of reduced form : oxidized form. Data are presented as means \pm SEM from three independent experimental replicates.



Supplemental Figure S4: Determination of the concentration and oxidation state of ascorbate in *Arabidopsis* roots. Nitrogen-limited plants were supplied with either ammonium or nitrate for the time periods indicated. Panel A displays the concentration of reduced ascorbate (ASC) and panel B displays the concentration of total ascorbate (ASC + dehydroascorbate [DHA]). Panel C shows the percentage of the ascorbate pool that is in the reduced form. Data are presented as means \pm SEM from three independent experimental replicates.



Supplemental Figure S5: Determination of the concentration and oxidation state of glutathione in *Arabidopsis* roots. Nitrogen-limited plants were supplied with either ammonium or nitrate for the time periods indicated. Panel A displays the concentration of reduced glutathione (GSH) and panel B displays the concentration of oxidized glutathione (GSSG). Panel C shows the percentage of the glutathione pool that is in the reduced form. Data are presented as means \pm SEM from three independent experimental replicates.



Supplemental Figure S6: Nitrate reductase activity in the roots of ammonium-supplied and nitrate-supplied *Arabidopsis* plants. Nitrogen-limited plants were supplied with either ammonium or nitrate for the time periods indicated. Data are presented as means \pm SEM from three independent experimental replicates.