SUPPLEMENTAL FIGURE LEGENDS

Supplemental figure 1

Amt-Gal4-Luc vector and *AtAmt1.1* promoter control region. A. Maps of the plasmids used in this study. pRGK366 contains the lacZ-multiple cloning site (MCS) and has dark blue/white screening capabilities. The Amt-Gal4-Luc vector, pRGK367, was constructed by cloning 274 bp of the *AtAmt1.1* promoter into pRGK366. B. Genomic sequence of the promoter and upstream region of *AtAmt1.1*. The first 274 bp (underlined) right before the natural TATA box (boxed) were used in the Amt-Gal4-Luc vector. C. Cloned region (in pRGK367) of the *AtAmt1.1* promoter (underlined) into the lacZ'-MCS (uppercase) of parent vector pRGK366. The enzymes AscI and BamHI were used (boxed regions) to clone into the MCS of pRGK366. The change from A→C (bold in square brackets) in the lacZ' promoter is necessary for the dark blue/white selection in the cloning vector pRGK366.

Supplemental figure 2

Graph showing qRT-PCR results from a sample run (4 replicates) on leaves of +N and –N grown plants. Each tube contained primers for the endogenous *AtAmt1.1* gene (shown as smooth lines, Amt) and the housekeeping control UBQ10 (shown as hatched lines, UBQ). The signal from the reference dye of each tube is also shown (shown as boxed lines, Ref). The threshold (solid red line) is set at a fluorescence level of 30.

Supplemental figure 3

Graph showing qRT-PCR results from a sample run (4 replicates) on roots of +N and –N grown plants. Each tube contained primers for the endogenous *AtAmt1.1* gene (shown as smooth lines, Amt) and the housekeeping control UBQ10 (shown as hatched lines, UBQ). The signal from the reference dye of each tube is also shown (shown as boxed lines, Ref). The threshold (solid red line) is set at a fluorescence level of 30.

Supplemental figure 4

PCR efficiencies for the *AtAmt1.1* and UBQ 10 genes. The genes were accurately and reproducibly measured by qRT-PCR from a 10-fold dilution series (for the starting template). The threshold cycle represents the PCR cycle when fluorescence is significantly greater than the background level in each case.

Supplemental figure 5

Luciferase expression profiles of +N leaf tissues used in qRT-PCR experiments (see Table I). A, Image showing +N plants grown under short daylight (8 hours) conditions with luciferase expression in petioles, but not in the laminas. Image taken right before the onset of the light period. B, Luciferase expression in leaves of +N plants. Top panel: typical expression profile of +N plant leaves; bottom panel: occasional aberrantly low expressing leaves.

Supplemental figure 6

Expression profiles for plants grown on media with varying amounts of ammonium nitrate. 2 week old plants were transferred from +N media to media containing 0, 5, 50, 500 and 5000 μM of ammonium nitrate as the sole source of nitrogen. Plants were grown on the respective media for 5 days and then imaged for luciferase expression. All images were taken at the midpoint of the light period.