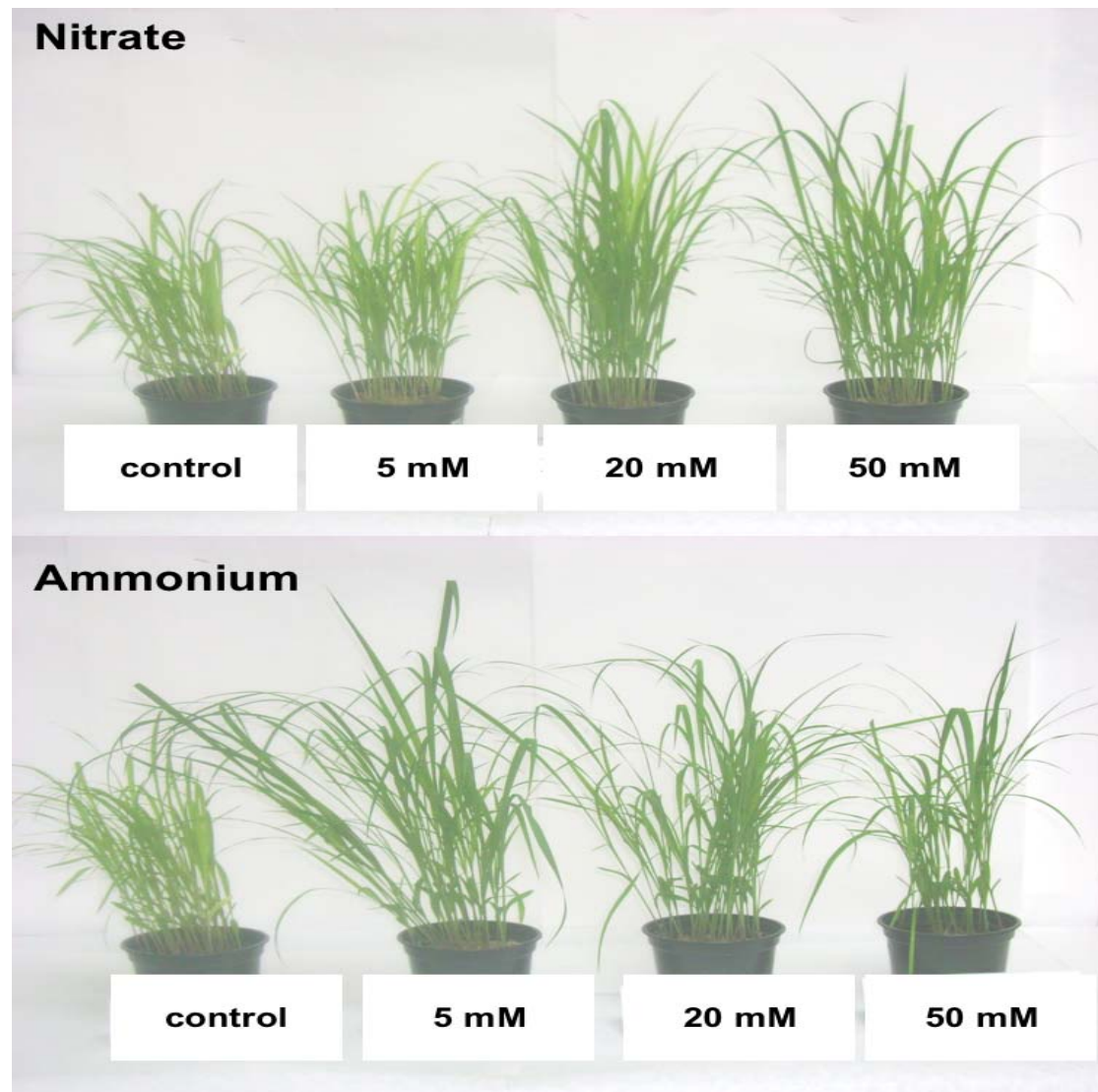
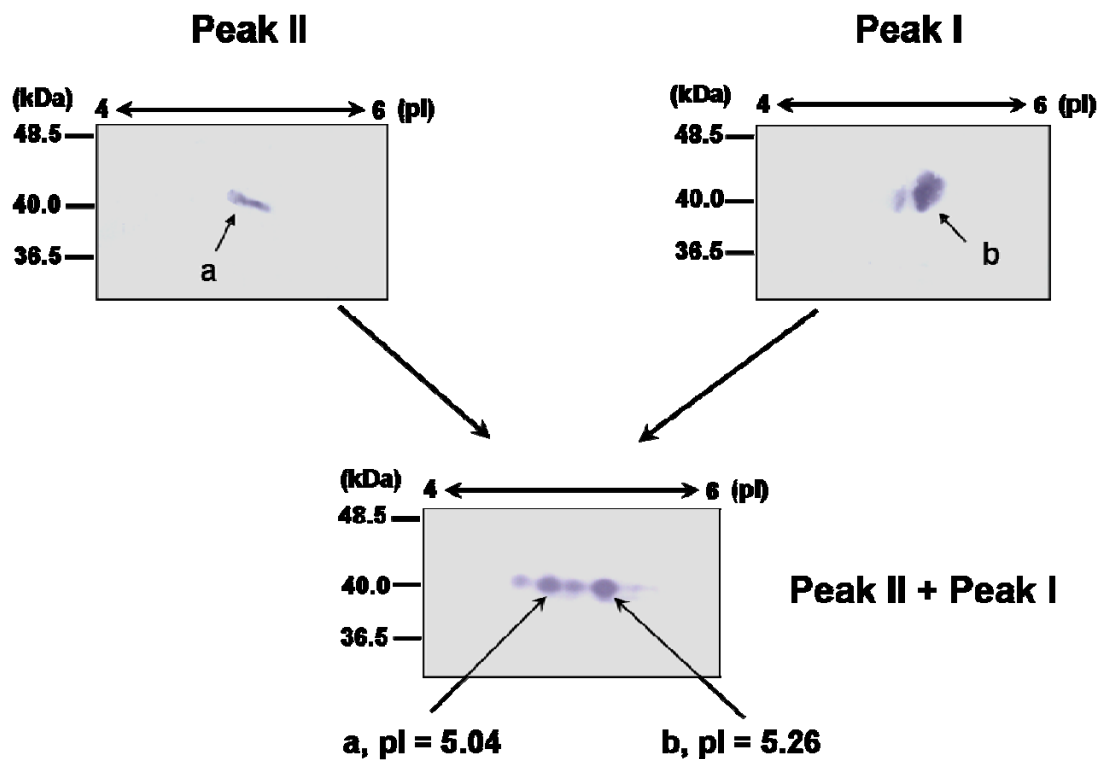


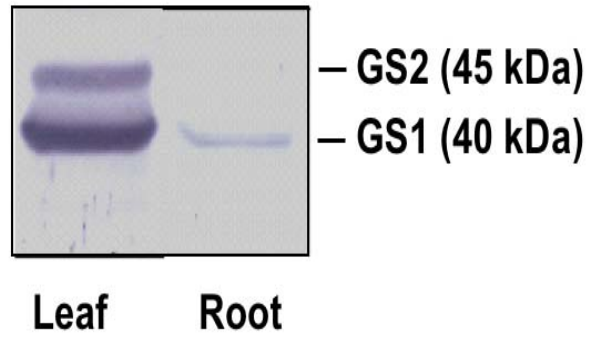
### Accessory Publication



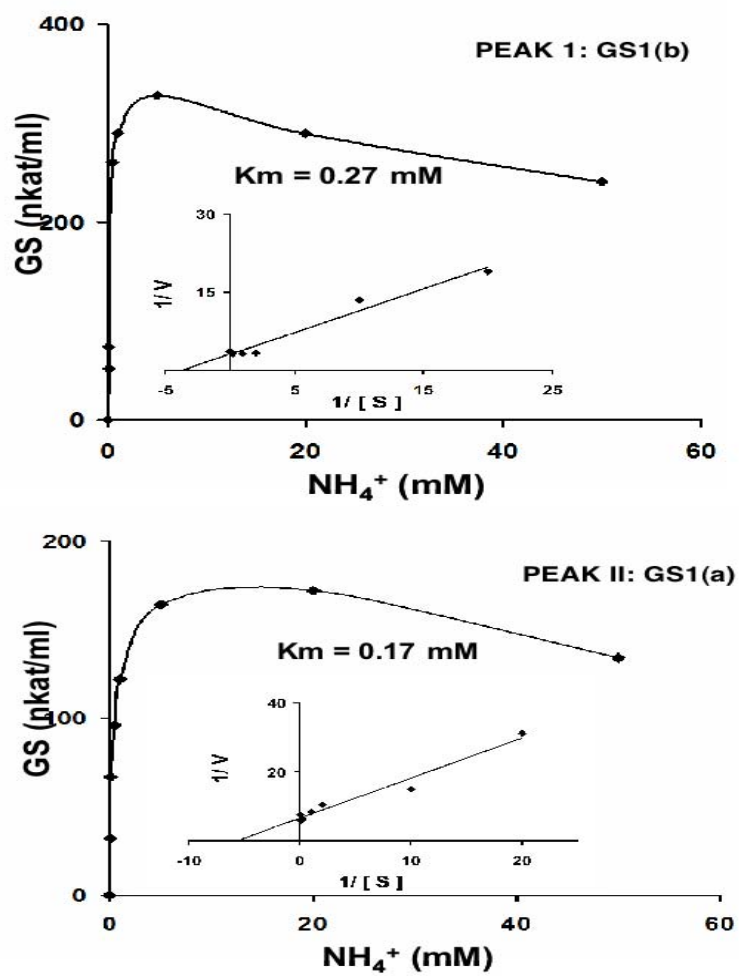
**Fig. S1.** Photographs of Sorghum-sudangrass hybrids at the end of treatments with nitrate and ammonium.



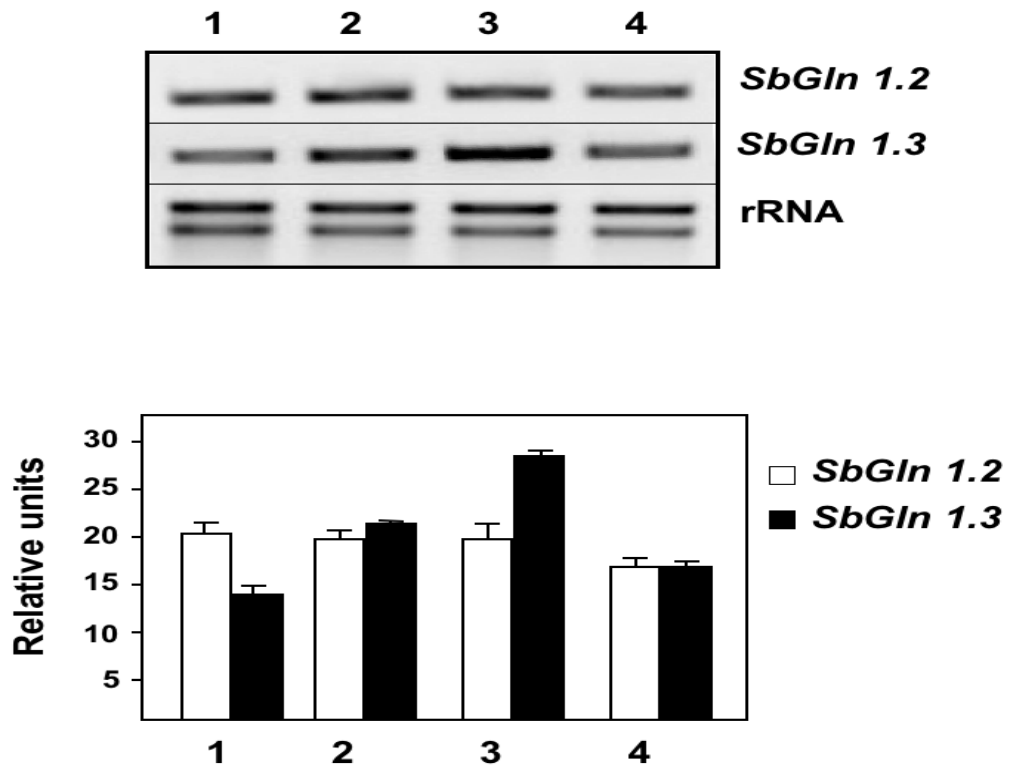
**Fig. S2.** Analysis of GS1 isoforms by 2D-GE and western blotting. The composition in polypeptides of the two peaks of GS activity separated by ion exchange chromatography was analyzed independently in the upper panels (peak II and peak I). Equal amounts of protein were loaded in the gels (2  $\mu$ g). In the lower panel equal amounts of GS activity (170 nkatals) for peaks I and II were mixed in a single sample that was subsequently analyzed. The calculated pI values of major GS spots are indicated.



**Fig. S3.** The polypeptides of GS isoforms in leaves and roots of Sorghum-sudangrass hybrids.



**Fig. S4.** Saturation curves and determination of  $K_m$  values for ammonium of the two peaks of GS activity separated by ion-exchange chromatography.



**Fig. S5.** Expression analysis of *SbGln1.2* and *SbGln1.3* genes in different sections of Sorghum roots (1 to 4). Total RNA was isolated from the same sections of roots analysed in Fig. 6. Values are the mean  $\pm$  s.d. of at least three independent determinations.