

Supplementary material for

Assessing Interactions between Nitrogen Supply and Leaf Blast in Rice by Hyperspectral Imaging

Angeline Wanjiku Maina, Mathias Becker, and Erich-Christian Oerke

University of Bonn (Germany)

in **Remote Sensing, Special Issue ‘Spectral Imaging Technology for Crop Disease Detection’**

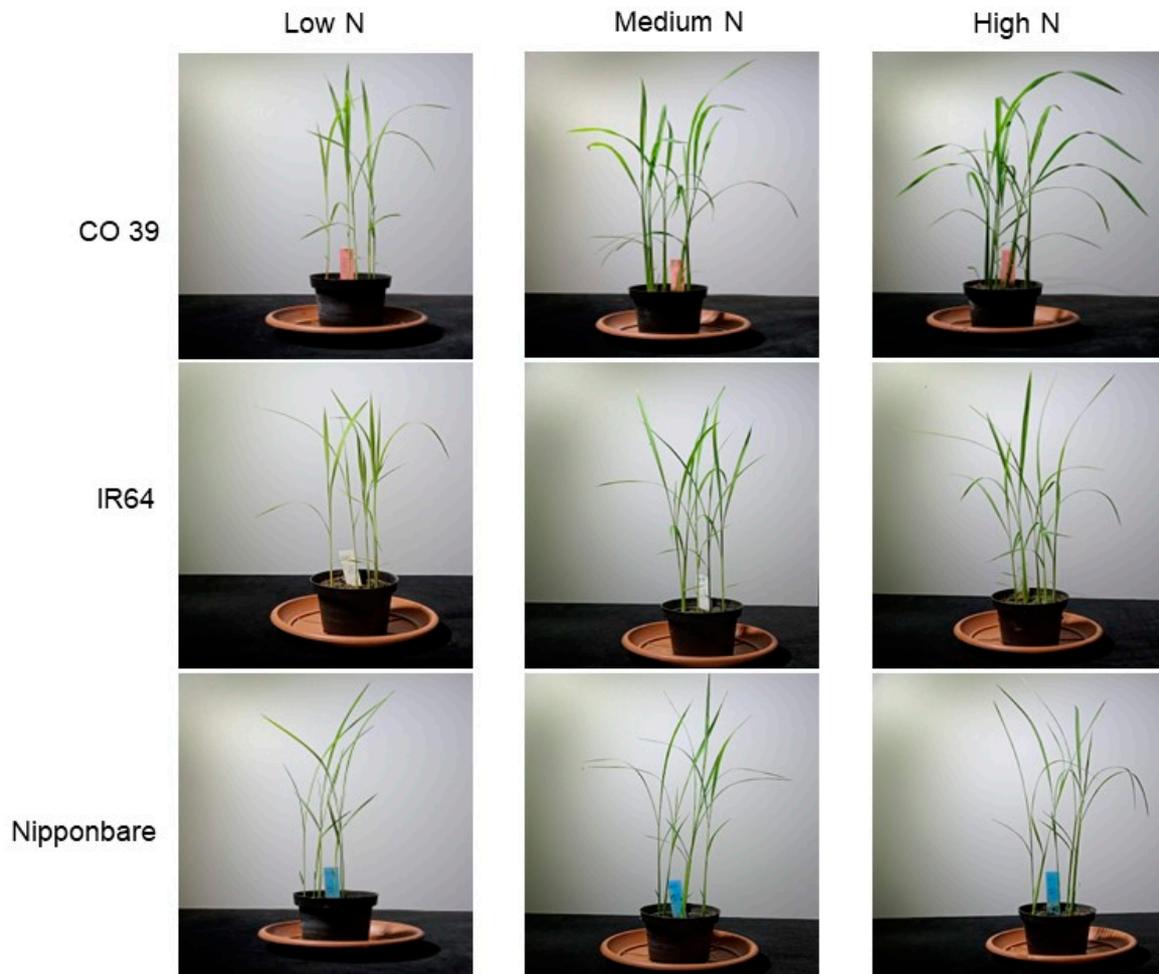


Figure S1. Characteristics of rice plants – genotypes CO 39, IR64, and Nipponbare - in response to increasing N levels 4 days after mineral N application. Different N inputs are indicated by low, medium, and high N levels.

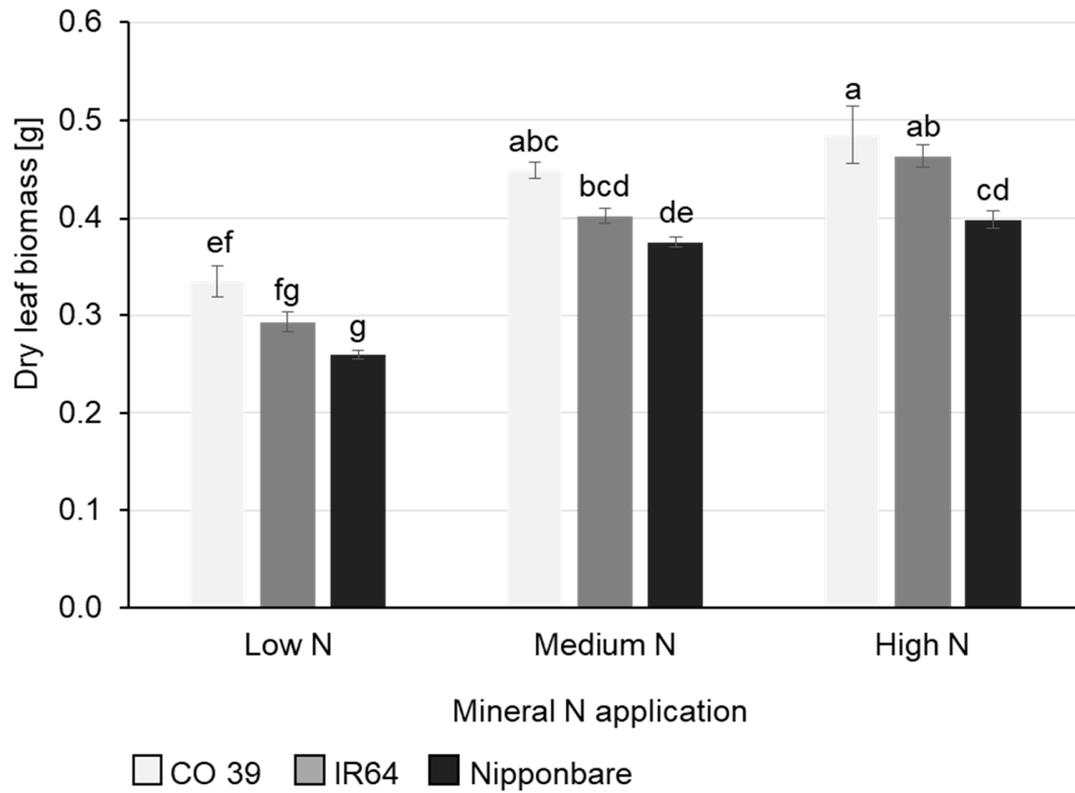


Figure S2 Effect of mineral N supply on total dry biomass of rice genotypes CO 39, IR64, and Nipponbare 4 days N application. The mean \pm standard error ($n = 4$) is shown. Letters denote statistically significant differences according to Tukey's HSD test ($P = 0.05$).

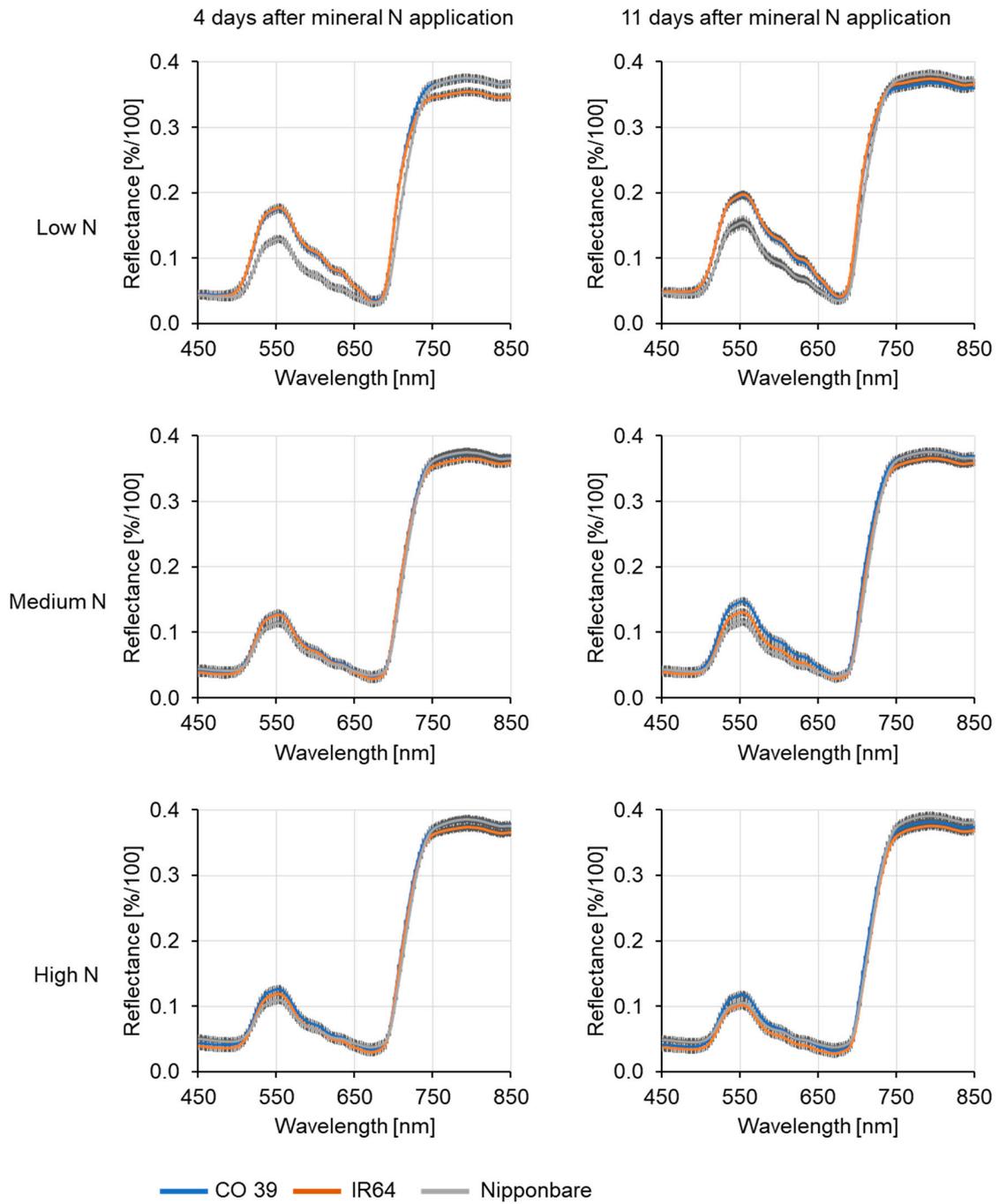


Figure S3 Effect of genotype on the reflectance of healthy rice leaves. Average reflectance spectra of rice genotypes CO 39, IR64, and Nipponbare at low, medium, and high N supply at 4 and 11 days after mineral N application. For each waveband, bars represent the standard error of the mean (n = 4).

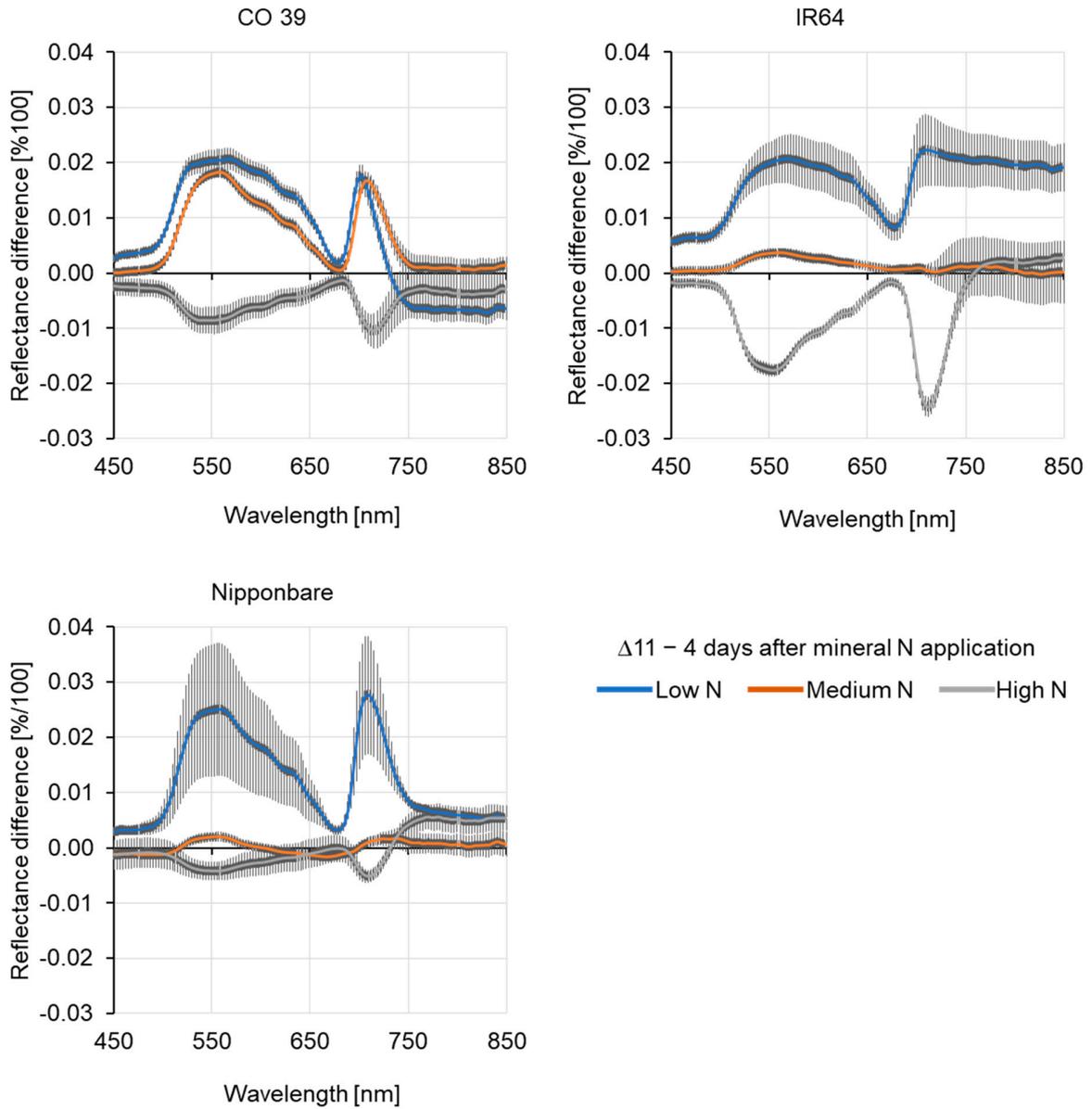


Figure S4 Difference spectra of reflectance of healthy leaf tissue of rice genotypes CO 39, IR64, and Nipponbare grown at low, medium, and high mineral N supply, respectively. Differences were calculated by subtracting the spectra at 4 days after fertilizer application from 11 days after fertilizer application to determine the effect of time on mineral N application. For each waveband, bars represent the standard error of the mean (n = 4).