



Figure 1. Simulation result from present root model where mineral content in soil was below potential nitrogen demand for the crop. Left part: Relative root density distribution in soil profile with three different form factors for a_z . All other settings are equal as root penetration rate and root biomass. Soil profile 1.0 to 2.0m with higher resolution for relative root density is shown in right part of the figure. Right part: Relative plant available nitrogen in four soil layers for three different form factors. Legend, Form factor values: Solid line (dark blue) $a_z=0$; Short dash line (dark green) $a_z=3$; Dotted (Dark red) $a_z=8$.