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Supplementary Material

Role of carbon and nitrogen mineralisation of chitosan and crop straws in ameliorating acidity of acidic Ultisols

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Figures

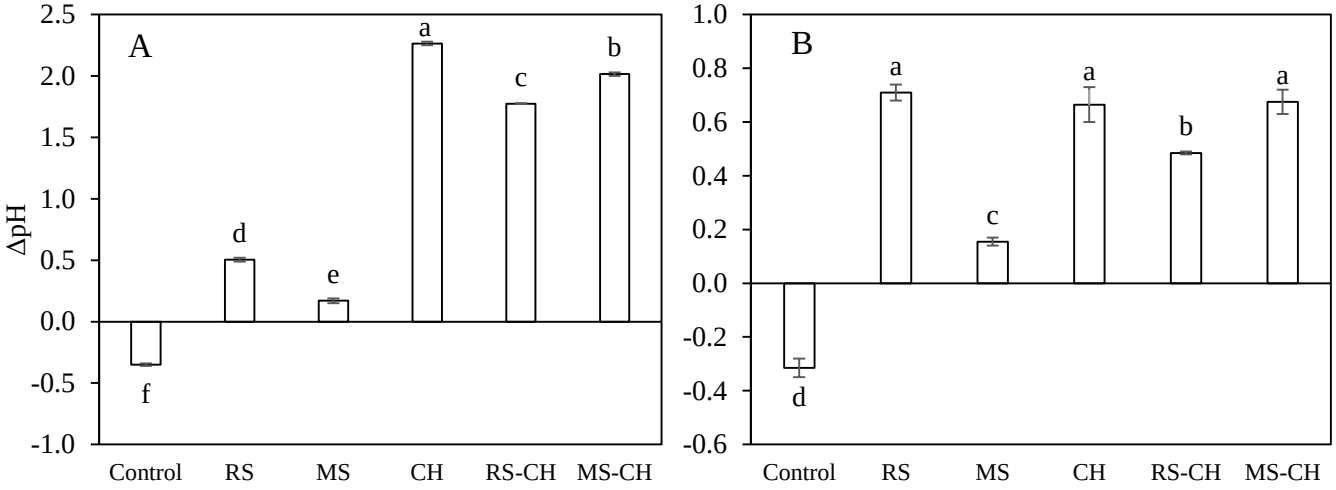

Figure S1 The difference between pH after application of chitosan (CH), rice (RS) and maize (MS) straws in two Ultisols (A for Ultisol-Langxi, B for Ultisol-Yingtan) after days 0 and 40 of incubation (bars represent the standard error).

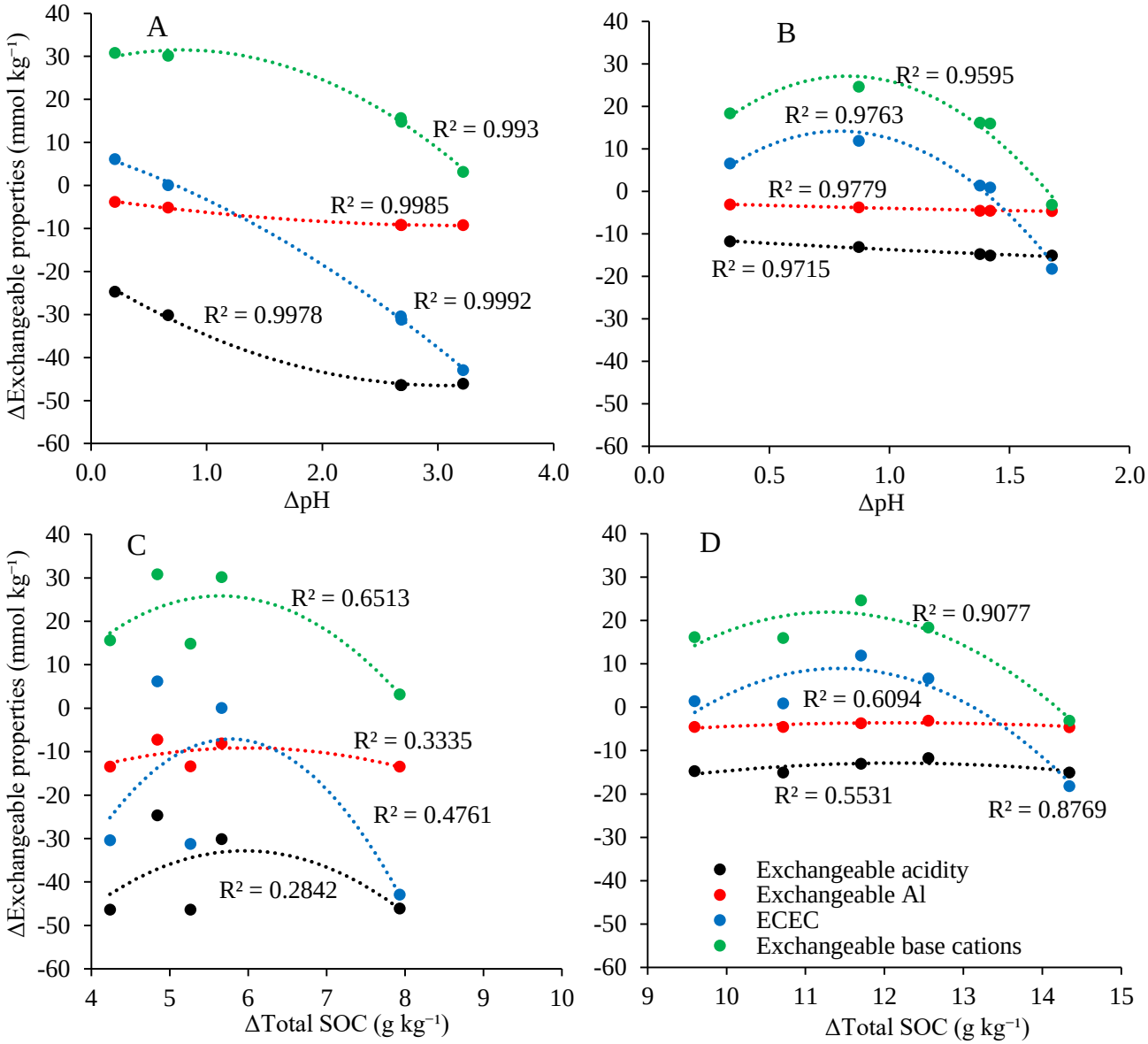

Figure S2 Second-order polynomial coefficients for the change in soil exchangeable properties of two Ultisols against change in soil pH (A for Ultisol-Langxi, B for Ultisol-Yingtan) and change in total soil organic carbon (SOC, C for Ultisol-Langxi, D for Ultisol-Yingtan) induced by the different amendments. Exchangeable base cations are the sum of exchangeable Ca^{2+}, Mg^{2+}, K^{+}, and Na^{+}; ECEC is the effective cation exchange capacity. The complete data are listed in Table 1. Some data points overlapped in A and show only four points instead of five.

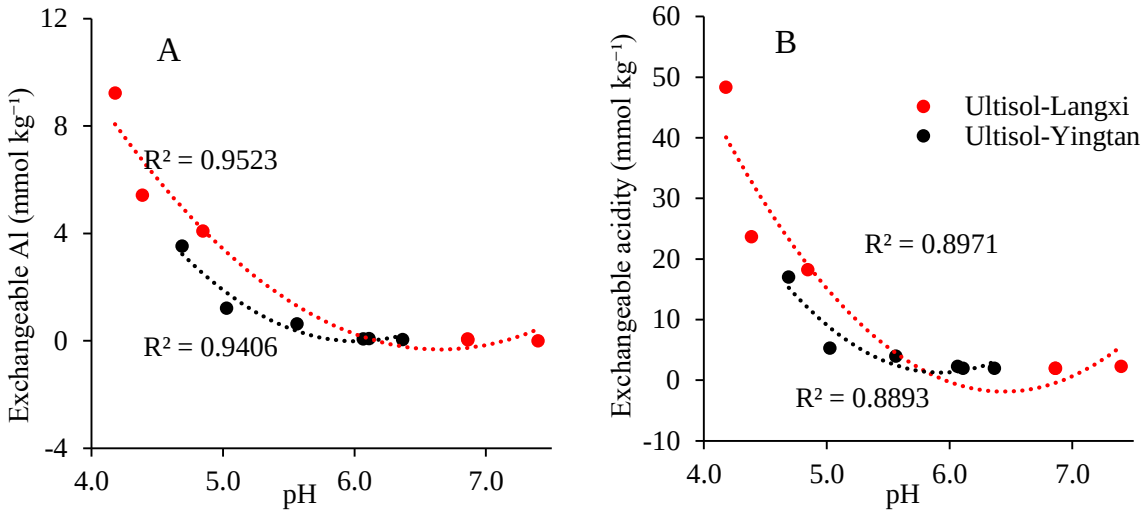

Figure S3 Second-order polynomial coefficients for exchangeable aluminum (A) and exchangeable acidity (B) of two Ultisols against soil pH for the control and amended soils.

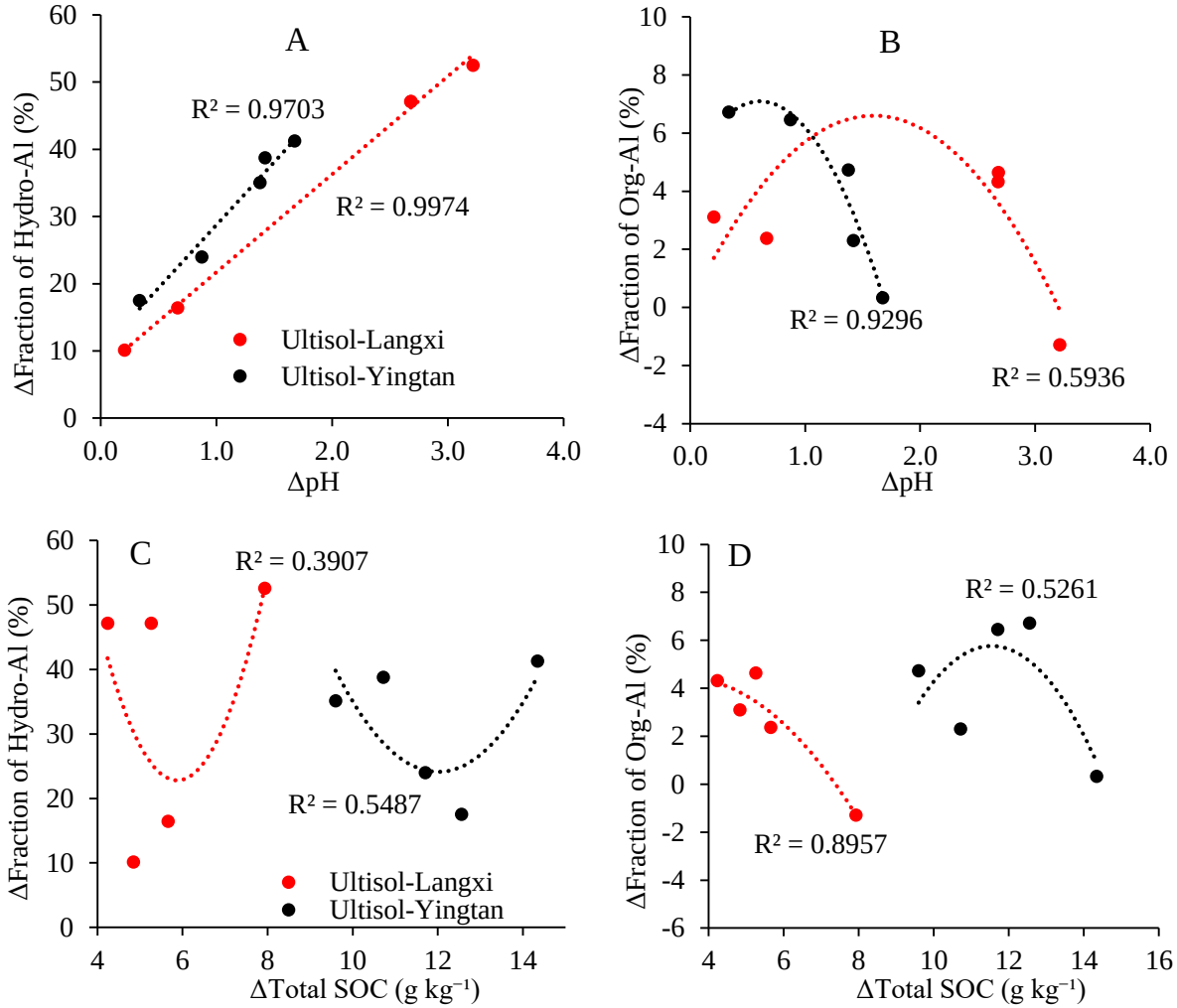

Figure S4 Linear relationship between Δfraction hydro-Al and ΔpH (A) and second-order polynomial coefficients for Δfraction org-Al and ΔpH (B), Δfraction hydro-Al and Δtotal SOC (C), and Δfraction org-Al and Δtotal SOC of two Ultisols induced by the different amendments after 40 days incubation.

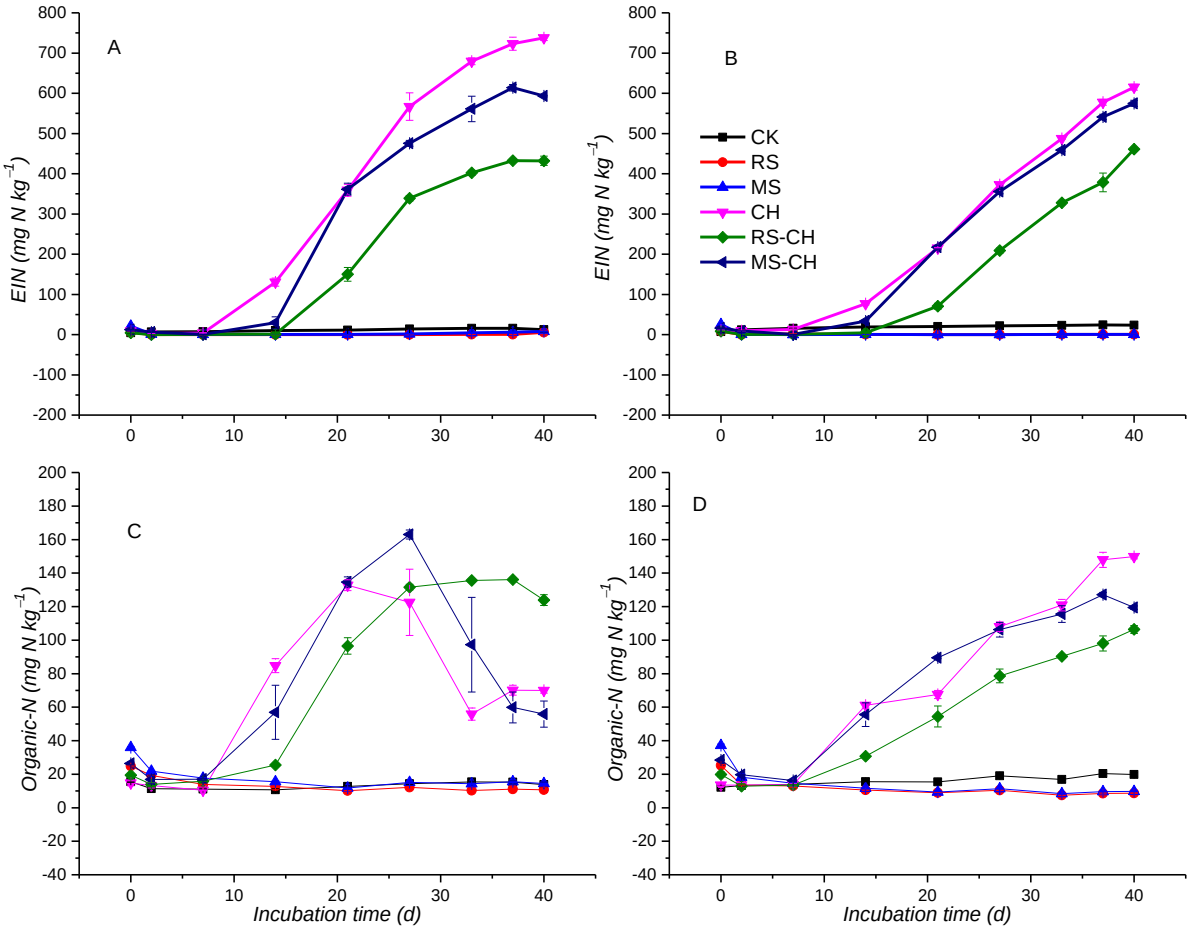

Figure S5 Effect of chitosan (CH), rice (RS) and maize (MS) straws on the contents of extractable inorganic N (EIN, A for Ultisol-Langxi, B for Ultisol-Yingtan) and organic N (C for Ultisol-Langxi, D for Ultisol-Yingtan) in two Ultisols (bars represent the standard error).