Lines 722-724:

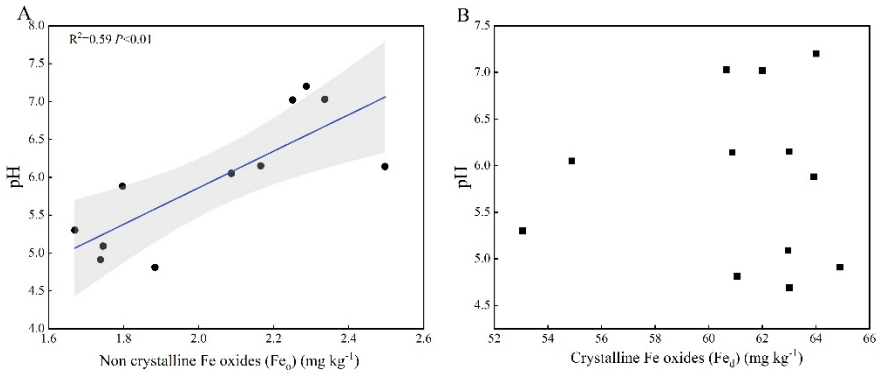

Fig. 4 *Relationship between soil pH and iron oxides concentrations. (A) Significant positive correlation between pH and amorphous iron oxides (Fe_o). (B) No significant correlation between pH and crystalline iron oxides (Fe_d).*

Lines 368-373: "Previous studies have demonstrated that organic amendments can enhance the content of non-crystalline Fe oxides, thereby promoting Fe-C associations (Chen et al., 2022; Huang et al., 2017; Wang et al., 2019). Extending these findings, our results provide new mechanistic insight by demonstrating that the increase in non-crystalline Fe oxides is closely linked to manure-induced soil alkalization. Specifically, the significant positive correlation between pH and Fe_o indicates that the…"

Line701-702:

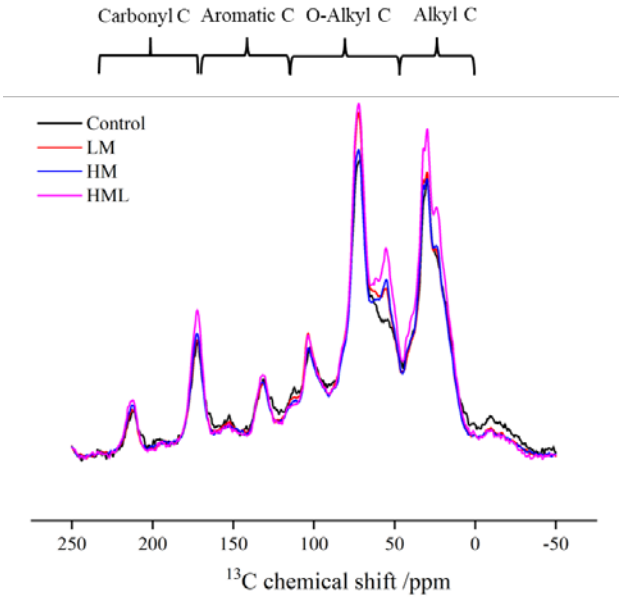

Fig.1 *CPMAS-^{13}C-NMR spectra under no manure (Control), low manure (LM), high manure (HM) and high manure plus lime (HML) treatments. Alkyl (0-45 ppm); O-alkyl C (45-110 ppm); aromatic C (110-160 ppm) and carbonyl C (160-220 ppm). The spectra are normalized to the total integral area of the control spectrum to highlight differences in the relative abundances of carbon functional groups.*