Soil aggregates control N cycling efficiency in long-term conventional and alternative cropping systems

Angela Y. Y. Kong · Steven J. Fonte ·
Chris van Kessel · Johan Six

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Author would like to change the first paragraph appearing after the section *Nitrous oxide emission measurements* on p. 51 as follows:

A cropping system effect on N_2O -N emissions was found for two successive measurements taken after the second fertilization of the conventional plot. At the May gas sampling event, N_2O -N emissions from the conventional cropping system ($16.6 \text{ g N ha}^{-1} \text{ day}^{-1}$) were greater than fluxes from both the low-input ($4.0 \text{ g N ha}^{-1} \text{ day}^{-1}$) and organic (no N_2O -N flux) systems ($p < 0.05$; Fig. 4). Greater N_2O -N fluxes were also observed in the conventional system ($13.5 \text{ g N ha}^{-1} \text{ day}^{-1}$) than in the low-input (no N_2O -N flux) and organic ($1.1 \text{ g N ha}^{-1} \text{ day}^{-1}$) systems at the June sampling event ($p < 0.05$; Fig. 4). With a cumulative N_2O -N emission of $484.2 \text{ g N Mg N}^{-1}$ (normalized with the soil N level of the cropping system), the conventional rotation showed the highest cumulative flux of N_2O -N in

comparison to the low-input ($235.8 \text{ g N Mg N}^{-1}$) and organic ($103.6 \text{ g N Mg N}^{-1}$) systems. Although greater than the organic system, cumulative N_2O -N fluxes from the conventional and low-input systems were not different ($p < 0.05$; data not shown).

Author would also like to change Fig. 4 on page 53 to:

Fig. 4 Effects of cropping management on nitrous oxide (N_2O -N) emissions from the conventional, low-input, and organic maize–tomato rotations at the Center for Integrated Farming Systems site (Davis, CA, USA). Arrows indicate approximate timing of fertilization events, the termination of irrigation, and the maize harvest. The N_2O -N fluxes paired with a '*' were significantly higher among the cropping systems, within that sampling event ($p < 0.05$)

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A. Y. Y. Kong (✉) · S. J. Fonte · C. van Kessel · J. Six
Department of Plant Sciences, University of California,
Davis, One Shields Avenue, Davis, CA 95616, USA
e-mail: aykong@ucdavis.edu