



Call for manuscripts to be published in **Nutrient Cycling in Agroecosystems**

Integrating Approaches to Sustainable P Management in Agroecosystems

Context

Phosphorus (P) is a key essential element that controls soil fertility and regulates crop productivity in many agroecosystems worldwide, in particular in Africa and South America. In contrast, the past overuse of P in the developed nations (and current overuse in emerging nations such as China) has been a key driver of aquatic ecosystem eutrophication: P losses to water are harmful for aquatic biodiversity and human health and well-being. Finally, concerns over the depletion of the earth's finite reserves of global rock phosphate and increasing fertilizer costs have re-emerged as a key concern. Agriculture is the main sector governing the flows and stores of P in our environment but the food chain is inherently inefficient in its use of P. Therefore, more sustainable use of global P resources in agroecosystems has been identified as a major goal for modern societies. Phosphorus efficiency gains are possible at a range of scales and across sectors. Much progress has been made in the understanding of some specific segments of the P cycle in recent decades. However, large gaps in knowledge remain, in particular about integrated studies of the P efficiency gains across sectors (e.g., agriculture and waste management); large scale approaches to P management in agroecosystems; P resource management in agriculture in the Global South (e.g., Africa, South America, South Asia); and integrated assessment of potential solutions for improved P resource recycling in agriculture.

Scope

This special issue of *Nutrient Cycling in Agroecosystems* follows the 4th Sustainable Phosphorus Summit held in Montpellier (France), Sept 1st-3rd (<http://sps2014.cirad.fr/>). While this Summit was organised around five sessions (P in our World; P in our resources and environment; P in our fields; P in our food, P in our wastes), this special issue is focussed on integrated approaches to sustainable P management in agroecosystems. Therefore, we encourage submission of manuscripts related to one of the following topics:

- *Integrated approaches to improving the sustainability of the P cycle across sectors*, with a specific focus on agriculture. Theoretical or conceptual manuscripts analysing how agriculture dominates the P cycle are welcome.
- *Large scale studies of the P cycle in agriculture*. Studies looking at integrated approaches (e.g. through crops and livestock association) at the farm scale are welcome but works at a larger spatial scale are particularly encouraged.
- *Synthesis manuscripts about the P cycle in agriculture*. Reports on some specific segments of P cycle are welcome, as long as they provide a synthesis of existing knowledge e.g. through meta-analysis.
- *Integrated assessment of potential solutions* for improving P resource recycling or limiting P losses in agriculture.
- *Studies of the P cycle in agriculture in different continents*; especially developing countries and emerging nations.

Schedule

The special issue is scheduled to be released in autumn 2015. The provisional schedule is as follows:

- Manuscript submission until 2015, Jan 31st.
- Manuscript evaluation until 2015, June 30th.
- Special issue publication in Oct 2015.

Contact

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