

Chat

Nancy G Love: We all need research outputs to help us address questions about salinity that frequently come our way.

Marine Legrand / OCAPI (she): Question: if we were eating less salt (healthy amounts of salt) would it still be a problem ?

Carol Steinfeld: It is dietary salt. A person in my book reduced salt for the sake of his plants.

Robert Cossette: I have found no problems with salt content in my tests for the last 6 years.

Marine Legrand / OCAPI (she): Renaud de Looze has made recommendations about salt accumulation for domestic use of urine

Rich Earth: Re. salt: in climates where precipitation is greater than evaporation, salt buildup is not an issue because it is regularly washed from the soil.

Rebecca Nelson: The concern about salt would be most relevant in low-rainfall areas... But our colleagues in Niger are still going strong

Gwenda Mark: Isn't this a problem with growing conditions rather than fertilizer per se? Evaporation, tillage, leaving soil bare to the sun? In a permaculture / no dig system, is there still a salt accumulation issue?

Nancy G Love: Question for consideration: Can a two step sorption process work...the non-pharm carbon first, then get more of the pharmaceuticals in the second stage reactor? I was distracted during the middle of the talk so I'm sorry if you mentioned this and I missed it. Great work!

Aurea Heusser: To Nancy's question: you could do that but it would not help save carbon. And we can not separate it as the range of 'adsorbability' of pharmaceuticals is very broad.

Rich Earth: Aurea: could you describe the aerobic treatment method you used, and how it differed from your nitrification MBBR? Also, what did you do to control ammonia loss due to the aeration?

Aurea Heusser: So if we have the long HRT then it is together with nitrification, hence, pH 6 and no ammonia loss. For the fast step we used an MABR to avoid losses. there we have no bubble aeration leading to stripping

Nancy G Love: That was Lake Erie...Ohio/SE Michigan

Nancy G Love: Frequent harmful algal bloom problems

Nancy G Love: The Detroit WWTP puts 18 mg/L ammonia-N into the Detroit River which flows to Lake Erie, at an average of nearly 700 million gallons per day...that plus agricultural non-point flows add nitrogen to the Lake. The bloom growth is largely driven by phosphorus, but the toxicity of the microcystin neurotoxin is amplified by nitrogen.

Aurea Heusser: Question to Jiaxi: You conclude that more than 99% of MPs are removed, but you mentioned also that it is not due to adsorption but rather biodegradation. (If I understood correctly) But as there are many MPs not being biodegradable, what about those?

Jiaxi Jiang (UTS): To Aurea: The >99% MPs removal performance was studied for six targeted MPs via both physical adsorption on PAC and biodegradation on biological powdered activated carbon (BPAC)

Rich Earth: Jiaxi: could you tell us how many grams of PAC were needed per liter of urine treated over the course of the experiment? I wasn't able to understand that from the dosing and refresh rate.

Rich Earth: Jiaxi: how many L urine/day?