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LETTER TO THE EDITOR

I have read with great pleasure the recent article "Whither goes soil science in the United States and Canada?" by Philippe Baveye and coworkers (*Soil Science* 171:501–518). There is a lot of talking about declining student numbers in soil science, and this is one of the first articles that has quantified it. The results confirm what many believe and have experienced—many, but not all. Although student enrollment in most universities in the United States and Canada declined, it did increase in some universities. The authors have come up with some explanation (faculty turnover, downturn of the economy, and aggressive advertising), and it seems that it is harder to quantify a trend than to explain it. For example, why did this not occur in the other universities. In other words, what is the real secret of these successes? We all know why students choose law, medicine, or business; but some details on the increase in these few universities would be stimulating to read. The authors put fair a bit of blame of the inertia on the soil science community. I think that they are right. In very few disciplines is there as much sogginess as there is in soil science. Fortunately, it is changing. Now, a whole generation is retiring, but it will take years before we fully recover.

There are two issues in the article that prompted me to write this letter. The first involves agriculture. The authors have mentioned several times that the continued link with crop production and agriculture is detrimental for soil science. True as this may be in North America, the link is absolutely essential in those parts of the world where food is short. As long as we have 800 million hungry people on this planet, there is an absolute need for soil science to be involved in—if not lead—research on increased crop production. Tremendous damage has been done by the notion that agriculture is only peripheral in developing countries, and development has to come from the secondary sector. Such views were commonly held by developing experts in the 1980s and 1990s and meant that agricultural research, including soil science, suffered from a reduction in funds and attention. I suspect that the declining number of soil science students in developing countries has resulted from these notions and views. The damage is not unrepairable, but it will take time to build up a new generation of first class soil scientists in developing countries—yes, they need to have very strong links to agriculture and crop production.

The authors have given a set of ideas on how soil scientists should or could behave in the public debate, and I agree with most of them. They point out that soil scientists should "…systematically write letters to the editor whenever they identify deficiencies in an article on soils-related issues...." Well, here is my letter. On page 516, they have stated that we should not oversell the case and should not "…argue that hunger in sub-Saharan Africa will be alleviated by injecting billions of dollars into research on soil fertility and soils-related extension activities...." This is a typical example of what I would call "northern thinking." There is no doubt that low soil fertility is the fundamental root cause for low agricultural production in many parts of Africa, and agriculture is an important way to lift people out of poverty. Given the inherent poor fertility of the soils and decades of soil nutrient mining, inorganic fertilizers are needed to increase agricultural production. The environmental damage of not using inorganic fertilizers is much larger than the risks of excess use. There is probably not a more beneficial thing to do than to pump billions of dollars (gee, I wish they were there) into African agriculture. Given the current state and the many years of neglect and ignorance, it is impossible to oversell that argument.

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