The soil scientist in the 21st Century

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There is increasing awareness amongst policy makers that soils often play a key role within the global environmental system. The debate on climate change and the need to sequester carbon has relatively recently recognized the important role of the soil carbon pool, and soil scientists are increasingly involved in setting national and international strategies for managing soil carbon and where appropriate increasing the carbon pool in some soils through an understanding of the fate of carbon in the soil system. Coupled with these concerns about carbon budgets there is also increased awareness of the need to sustain and increase food production and the importance of maintaining soil quality in meeting new food production targets. It is now more widely recognized, perhaps somewhat belatedly that soil management is a key component of the sustainable food production system.

For the final third of the twentieth century there was in many countries of the world a decline in the number of soil scientists being trained and the opportunities for employment in the University, Research and Business sectors were limited. Within these early years of the twenty first century this increasing awareness of the importance of soils in so many aspects of our lives, is giving rise to increased demand for well trained soil scientists. Soil Science has a need to catch up if we are to meet this demand, we must train more soil scientists. The question which must be addressed however is what skills do we expect of our new breed of soil scientists? In the past many soil scientists had chemistry as the underlying academic training and whilst this is still important we must ensure that our new breed of soil scientists have a broader awareness of environmental systems and the role of soils in these systems and the contributions of soils to the ecosystems services provided by these systems. Soil science and soil scientists must be able to work across disciplinary boundaries and be able to communicate their knowledge to the non-specialists. If we are not able to rapidly communicate our information in a clear and understandable form to those who make decisions we shall not be listened to and the key role of soils will be recognized but no appropriate action taken. The training we provide must embrace both the scientific and social context of soils and must focus on communication across a broad range of media. Increasingly in the United Kingdom we are looking to internships to provide an additional aspect to the training where students are able to experience the practical application of their education. In most cases those experiencing internships are more readily employable at the end of their studies. This presentation will present examples of recent experiences in the changing nature of the training of soil scientist and suggest some ideas for the future.

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