

SUBMISSION ON GREEN PAPER ON AGRICULTURAL COMPETITIVENESS

BY

THE AUSTRALIAN SOCIETY OF SOIL SCIENCE INC.

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The Australian Society of Soil Science Inc. (now referred to as Soil Science Australia) is a professional society that represents over 900 members across Australia. It comprises a Federal executive and seven branches in each state and one in regional New South Wales, each with their own executive committee. Membership consists mainly of consultants, academia, CSIRO and soil scientists in state and territory agencies. Membership also includes some farmers. See <http://www.soilscienceaustralia.com.au/> for more detail.

Soil Science Australia welcomes the opportunity to make a submission on the Green Paper and is willing to partner with the government as required in the implementation of the proposed white paper (based on this green paper process).

The society supports the strong emphasis given in the green paper to the importance of good soil management for Australia to achieve agricultural competitiveness. Ambitions to dramatically increase agricultural production will need to rely on agricultural intensification and expansion, putting greater pressure on the soil resource. Leading members of Soil Science Australia believe such additional pressure will require a focus on R&D and management practices that enhance not only soil resilience but also soil security.

Soil Science Australia will restrict its comments to themes where it believes it can make the most effective contribution.

- Education, skills and training, and labour,

Soil Science Australia supports the concept of greater opportunities for agricultural education which includes a focus on soil science. We have also observed a need for adult education in soil science for those already in the workforce and on the land. Members have many anecdotes where unnecessarily expensive or ineffective farming decisions have been made because of a lack of knowledge of the basic fundamentals of soil science.

Soil Science Australia provides some opportunities for training and mentoring of its less experienced members and other interested parties. Its members in academia also provide courses within existing degree frameworks. Furthermore Soil Science Australia has a program of accreditation, the Certified Professional Soil Scientists (CPSS) program, whereby the community can have confidence in the skills and knowledge of a member with CPSS. See <http://www.cpss.com.au/> for more detail.

Soil Science Australia is exploring opportunities whereby soil science is used to greater effect in agricultural decisions, with CPSS accreditation being the main initiative. Soil Science Australia maintains this program using volunteers within the society and would welcome the opportunity to interact with the Australian Government on how to share the responsibility of raising standards of soil management. For example a stakeholder suggestion was: establishing a young farmers' mentoring and networking

programme to help new entrants, including offering clear advice and information on education pathways for agricultural careers.

Soil Science Australia is currently in dialogue with GRDC and the University of Sydney with reference to the soil science competencies identified as essential for professional extension agronomists and agricultural advisors.

It was interesting to note in the green paper that the top performing farmers had a more positive attitude towards training.

- Water and natural resource management

The Green paper rightly states: “The future competitiveness of Australian agriculture is dependent upon the sustainable use of our land, water and soil resources—and a healthy natural resource base is integral to a growing agriculture sector”. It also depends on protecting the best land from competing land uses such as mining and urban and infrastructure encroachment (i.e. soil security). Various state governments have attempted this, but they rely on high quality soil mapping to properly identify such land. However Australia’s efforts to do such mapping have been constrained by a piecemeal approach by governments to address a particular agricultural or soil issue. Most of Australia’s soils are only broadly mapped and this limits its level of detail and user confidence - it is probably of the lowest reliability in the western world. The lack of a coordinated and comprehensive national soil mapping program continues to hold back Australia’s identification of prime agricultural land. High quality soil mapping using new technology is now faster and cheaper than in the past. Such a program would significantly enhance planning for protection of the best land and provide a strong basis for soil management advice.

While the establishment of the Landcare Program has led to many achievements, its rise has been accompanied by a significant decline in state and CSIRO soil mapping and other soil R&D programs. Members of Soil Science Australia say the situation is now dire across virtually all jurisdictions. Recent losses in capacity has now led to organizations being below the critical mass of soil scientists needed to be responsive to the expectations needed for agricultural competitiveness.

- Research, development and extension

The Government is to be commended for the development of the National Soil Research, Development and Extension Strategy. The strategy aims to ensure soils research becomes more targeted and collaborative and better meets the needs of farmers. It has the potential to underpin much of the soil science action that will support agricultural competitiveness in coming years.

However Soil Science Australia appeals to the Government to back up these fine sentiments with additional targeted RD&E investment in soil science. Without additional funding, the collaboration hoped for is becoming harder to achieve. The gains will not be attained without an injection of funds to raise capacity and meet the challenges of soil security and soil resilience. As stated in the Green paper “Australia can only be a major global player in agriculture if we are at the forefront of technology and productivity”.