

ADDRESS BY

**MAJOR GENERAL THE HONOURABLE MICHAEL JEFFERY,
AC, AO(Mil), CVO, MC (Retd)**

ON THE OCCASION OF

**THE OFFICIAL OPENING OF THE COOPERATIVE RESEARCH CENTRE FOR HIGH
PERFORMANCE SOILS**

**AT THE INDUSTRY DEVELOPMENT CENTRE ATRIUM
THE UNIVERSITY OF NEWCASTLE
CALLAGHAN CAMPUS, 130 UNIVERSITY DRIVE, NEWCASTLE**

THURSDAY, 2 AUGUST 2018

**Senator the Honourable Zed Seselja
Professor Caroline McMillen
Dr Paul Greenfield
Dr Michael Crawford**

1. It is a pleasure for me as Patron of the Cooperative Research Centre for High Performance Soils, to be here today at the official launch of this exiting project, and to be able to provide some input to the vital conversation about the importance of our soil and how only a healthy soil will sustainably support a global population estimated to rise from its current 7 billion to 10 billion by 2050. Could I preface my remarks with three recent observations:

- a. New South Wales drought – 500m
- b. The Great Barrier Reef – 487m
- c. China – emphasis on agriculture, environment.

2. Thus it is that I consider this CRC to be by far the most important being undertaken across the country and I only wish that we had \$400m as a 10 year budget, rather than the current \$40m.

3. In July last year, the initial meetings of this CRC were held in Melbourne and I was privileged to be asked to give some opening remarks. I mentioned at that time the story about a former US President John F. Kennedy and his aim for the USA to be the first nation to put a man on the moon. The important element of that story is that of the gardener at NASA who, when asked by the President as to what he did, replied that he was helping to put a man on the moon. In other words, although his specific job was as a gardener, his job as a member of the NASA team was to help put a man on the moon.

4. The meetings we had in Melbourne last year engendered a sense of that same collaborative approach of the NASA gardener and I sincerely hope we maintain that spirit of collaboration over the decade of this project.

5. As you know, the health of our soil is vital to human survival and in broad terms, since the end of World War One we have been mining our soils rather than restoring or maintaining them. The Soil CRC will help to address that problem. Accordingly what we are here to do as a CRC is to determine the intricacies of the various parts of a soil's profile that, if improved, will ensure better outcomes for the farmer, the environment, the nation and eventually the planet. We need sustainable, inexpensive, non-destructive and measurable processes that restore where necessary, and then maintain good soil health.
EXPLAIN: 7bn microbes

6. I see a requirement to address and agree on the basic principles of a fertile or healthy soil; how to achieve the best soil structure for a particular landscape area; what type of soil management will give the best outcomes; what are the results of the various inputs; what are the outcomes of soil additions, both organic and inorganic, and importantly,

what is the validated overall impact of those inputs on the sustainable production of clean, green and nutritious food, both for animals and humans. Of great importance is understanding the key role of carbon to a healthy soil, how to measure it quickly, accurately and cheaply broad acre and how to increase carbon levels in the soil. EXPLAIN: Megan Clarke and Larry Marshall

7. Another area which I feel is greatly under promoted which can help the CRC to promote healthy soil to further our goal of regenerating our agricultural landscape is to encourage the establishment of a garden in every primary and junior high school across the country but with a syllabus agreed through the National Curriculum Council. By doing this, our children will become more in tune with where their food comes from, what it takes to grow food and why it is so important to care for our soil, look after our water and plants and also our farmers. We can teach children how the microbes function, what happens when there is a lack of soil carbon or phosphorus, and how important it is to understand the correct hydrological functioning of our soil. EXPLAIN – The iFarm computerised trailer concept to monitor, track and record all aspects of plant growth in a variety of containers, through a combination of sensors, cameras, and other monitoring systems, all computer controlled. Value to CRC.

8. We need good soil health – any by extrapolation food and people health - to be part of the national daily conversation; with its huge potential to save substantial government health dollars, some of which could then go back into agriculture.

9. As the National Soil Advocate I recently presented the Prime Minister with my Policy Paper. This paper includes a number of recommendations on interest to the CRC and is aimed at guaranteeing the future of our soil and the sustainability of our food and fibre production.

10. A key recommendation to all governments is to:

- a. **Agree to a national soils policy with the objective of maintaining and restoring the health of the Australian agricultural landscape** through a coordinated and integrated approach involving the portfolios responsible for agriculture, environment, health, education, defence, Australian Aid, Indigenous affairs, regional development and industry. - EXPLAIN
- b. The policy will recognise Australia's **soil, water and vegetation as key national natural strategic assets to be managed accordingly and in an integrated way; better support our 130,000 farmers as stewards of about 60 percent of the Australian continent, and as earlier explained, seek to reconnect urban Australians with their rural roots through establishing a school garden in every primary and junior high school through the National Curriculum.** The

policy will support long term research directed at priorities identified through a stocktake of our scientific knowledge of soils and RD&E capacity, and where possible encourage regulatory consistency for farmers

11. The Policy Paper also includes a recommendation to Government that directly impacts on this CRC, that is to:

- a. Establish a long term, permanent soil, water, vegetation and agricultural knowledge program that encourages collaboration between scientists and successful farmers **to build knowledge, collate the evidence to support successes and improvements, provide improved extension services with appropriate career planning to share the information and promote the wider use of regenerative farming techniques.**
- b. A revamped Soils For Life organisation is one of the partners of the CRC, and is focused on doing just that through its 100 case studies program.
EXPLAIN – Kirsty Yeates role

13. The full Policy Paper can be found on the Soils For Life website - www.soilsforlife.org.au

14. To conclude. I am very pleased to be involved with this CRC – it is charged with a very important task of delving into what is needed to give us high performing and sustainable soil with a continuing capacity to nutritionally feed and to clothe us into the future. The collaboration of all partners with our farmers will, I am sure, lead to excellent research, good outcomes and an enhanced reputation for Australia as a leading proponent globally of good soil management. It will be essential that the CRC findings are regularly and clearly promulgated to Government and University Agricultural Departments, to the Deans of Agriculture, to Ag College teaching staffs and of course, to farmers. I wish the Soil CRC every success.

Thank you.