





News from Saskatchewan's Life Science Sector

Food security, scarce resources an immediate and urgent challenge: Cribb

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In Julian Cribb's opinion, it is time, literally, to put our money where our mouths are.



Cribb was the second of two keynote speakers to kick off the Agricultural Biotechnology International Conference (ABIC 2010) in Saskatoon. He argues that investment in agricultural research will have to increase dramatically if we are to meet the greatest challenge facing us all: how to double food production in a generation to feed a population expected to top nine billion by 2050.

Cribb spoke around the themes in his latest book, The Coming Famine. The Australian author, academic, and champion of science communication painted an alarming picture of humankind rapidly outstripping essential resources of water, good land, energy, nutrients,

technology, fish, and stable climates. Signs of these changes are already appearing, for example, in the business community where Australian mining giant BHP Billiton is striving to buy PotashCorp, which controls much of the world's reserves of this essential plant nutrient.

While the Green Revolution of the 1970s transformed many developing countries from widespread starvation to food self-sufficiency, Cribb argues the new crisis is unlikely to yield to quick fixes of skill and technology. Scarcity of virtually every resource we need to feed ourselves will demand broader based solutions. For example, as cities grow, less water is available for irrigation. And around the world, aquifers such as the massive Ogallala Aquifer that runs from South Dakota to Texas, are being drawn down at an unsustainable rate.

"We will not have enough water to feed ourselves in 25 years," Cribb says.

The same is true of arable land, which is being lost to degradation and the sprawl of our cities. These are typically situated on river valleys and coastal plains - the very best of our productive land.

"We need to realize development has a new meaning: the permanent loss of food growing potential."

Cribb calls for a "crash program" in agricultural research and development to meet the challenge of doubling food production in the next two decades. This means dramatically



increasing budgets in agricultural research. This in turn will decrease strife in the world - much of it related to scarcity of food - and decrease the need for military spending for security.

"We spend 40 times as much money on killing people as we do on feeding people," he says.

While Cribb has been criticized as being apocalyptic in his predictions, he insists he remains optimistic that human ingenuity can rise to the challenge. This means working together on an unprecedented scale, and setting aside such feuds as those that exist between organic and industrial agriculture.

He argues that since half the world's people get their food from small, organic farmers in developing countries, it would make sense for agricultural researchers to develop genetically modified crops that produce more food with fewer nutrients and less water. Industrial farming, on the other hand, could benefit from advances in soil science that come from organic farming research.

Likewise, wide-ranging innovations from urban agriculture (think green roofs) to empowerment of young women (to help curb population growth) need support.

"We need it all," Cribb says.

