MEDIA RELEASE

Embargo: Monday, 20 November 2017

Contact: Cathy Reade, Crawford Fund, 0413575934 cathy.reade@crawfordfund.org

COMMON SENSE NEEDS TO DRIVE PLANT BREEDING

Plant breeders should focus on the demands of those who use, eat or sell their new varieties of crops when determining breeding priorities. While this sounds like common sense, an international study on demand-led plant variety design has found that this is often not the case.

"*The Business of Plant Breeding: Market-led Approaches to New Variety Design in Africa*" will be launched at TropAg conference and is the result of an in depth investigation into how to make new plant varieties more responsive to changing farmer and consumer demandsin order to increase adoption of high yielding varieties. Leading plant breeders in Africa together with Dr Gabrielle Persley, research director at the Crawford Fund and Dr Vivienne Anthony from the Syngenta Foundation for Sustainable Agriculture, have written the book as a resource for professionals in plant breeding and related disciplines, as a way to increase the returns for farmers from modern crop development and boost productivity and profitability in agriculture.

The study was sponsored by the Australian Centre for International Agricultural Research, the Crawford Fund, and the Syngenta Foundation for Sustainable Agriculture, and managed by the University of Queensland.

"There are any number of new crop varieties that are never grown because they are not what farmers, consumers or seed-companies want," said Dr Anthony, who has many years of experience in Africa where take up of many new varieties is poor.

"Demand-led plant breeding is a significant and potentially game-changing initiative because it could dramatically increase the benefits for farmers and stimulate the emergence of new markets the world over, but it's of particular significance in the developing world where the need for uptake of new crops is so great," said Dr Anthony.

"Despite extensive efforts by public sector R&D, the adoption rate of new varieties by smallholder farmers for many food crops in Africa is below 30%. A key factor is that new varieties frequently don't meet the needs of farmers or consumers,' she said.

“We hope our book and training resources will stimulate a new breed of plant scientists to be more aware of who makes up their market and what they want, so that the crop varieties developed lead to improved and sustainable food production,” said Dr Persley.

Dr Persley noted examples of where significant investment was made for a new variety that the market – farmers, consumers or seed companies – simply didn’t want.

“We were told about rice in Mali that couldn’t be harvested by women carrying infants on their backs; sorghum in Ethiopia without strong, tall stalks that could be used as housing materials; and new higher yielding, cassava mosaic virus tolerant varieties of cassava in Zambia and Malawi that consumers didn’t like and modern varieties of sorghum in Kenya that were not adopted despite good agronomic performance because they didn’t meet consumer preferences for taste, brewing quality or ease of cooking.”

In addition to the book that will be launched at TropAg, the study has led to a training module that is available for use by educators in plant breeding, and the authors are running this week a workshop for early career professionals in Australia. There is also a symposium session at Tropag on demand-led breeding of fruits and vegetables in Australia, Sub-Sahara Africa and South East Asia that will showcase examples of success in connecting improved varieties with private sector seed companies to reach smallholder farmers, and ideas on how to achieve sustainable investment in plant breeding in developing countries.