



# Data harvesters

*Dr David Songstad*

*President, Council for Agricultural Science and Technology*

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Dr David Songstad reveals how the Council has become recognised as the global leading source of factual, unbiased scientific information on all aspects of agriculture, as well as highlighting the CAST Issue Paper that contained Nobel Peace Prize Laureate Dr Norman Borlaug's last written word to science

**Can you outline the current challenges affecting plant protection in the wider context of plant and soil sciences? By what means is the Council for Agricultural Science and Technology (CAST) addressing these issues?**

As the population increases, the amount of arable land available will decrease. This means we need to be more productive on the land that is best suited for agricultural production. Consequently, we will require agricultural advances across all sectors, including agricultural engineering, agronomy, agricultural economics, biotechnology and sociology.

**The Council works in a multidisciplinary capacity, involving economists, social scientists, toxicologists and many others in its endeavours. How does this form of collaboration benefit CAST's activities?**

CAST is an organisation that presents data and facts to policy makers, academics and the public in a way that does not convey an opinion or an agenda. The CAST Executive Vice President (EVP), Kent Schescke, is charged with identifying authors and reviewers who represent all the critical areas involved with our publications. Further, the EVP looks for authors/reviewers that are from diverse geographic regions so that the publication is not biased in this regard.

Anyone can submit a proposal to CAST for an idea on a new Issue Paper or Commentary, but the names of the authors and reviewers are kept in confidence with the EVP. Even I, as the President of CAST, do not know



*Dr David Songstad is also Director of Cell Biology for Cibus, LLC, a genome editing company based in San Diego, California.*



the names of the authors and reviewers until the time the publication is about to be released to the public. Again, this is done to keep anyone from biasing the findings.

#### **By what means does the Council disseminate science-based information regionally, nationally and internationally?**

CAST communicates information in various manners. First, we have publications posted on the CAST website that are freely downloadable by anyone throughout the world. The CAST office tracks where our website is being accessed, so we can truly state that we are a worldwide source for agricultural information. Second, with the launch of each publication we have a venue where the lead author(s) and the CAST EVP are present to discuss the publication and key findings with an audience.

We typically choose locations pertinent to the publication and usually roll it out in Washington, DC. Furthermore, we often make videos of the discussion during the launch and sometimes make follow-up videos regarding publications that are posted on the CAST website, YouTube, SchoolTube and other forms of social media.

#### **How is the communication of CAST activities to non-scientists enhancing education and understanding among the general public?**

CAST activities are frequently communicated with non-scientists and the general public by being cited by journalists in their publications... just as we are doing today! Furthermore, CAST has an annual presence at the World Food Prize where we deliver the Borlaug CAST Communication Award for the nominated individual that best communicates science with the public. The World Food Prize is an annual event in Des Moines, Iowa, where about a thousand people from throughout the world convene to learn about agriculture. Many of these people come to the Borlaug CAST Communication Award presentation. CAST also has *Friday Notes*, which summarise the week's agricultural news and events, distributed every Friday to CAST members. Finally, most CAST publications are freely downloadable by anyone, including non-scientists.

#### **Could you explain the ways in which the Council's publications impact US legislative and federal agency actions?**

The reason we launch CAST publications in Washington, DC, is that we have a diverse audience representing all aspects of government, comprising the US House, US Senate, US Department of Agriculture, and other departments and agencies. Government officials appreciate CAST publications because of the unbiased approach in which the data and facts are presented, and because this helps in enacting laws that affect agricultural policy in the best interest of the country and the world.

#### **What is the CAST Education Program? How does it support members?**

Through the CAST Education Program, *Friday Notes* is shared with faculty members, graduate and undergraduate students, and aspiring scientists through member universities and the National Association of Agricultural Educators. It is essential that these educators and future scientists know where to gain access to credible, science-based information in order to understand the events occurring daily that affect their research, their career and the world. The Program helps achieve this goal.

#### **Can you highlight some of the science activities CAST is involved with, such as the American Meteorological Society's Project ATMOSPHERE?**

CAST is involved with approximately 20 professional societies, including the American Meteorological Society and about 10 nonprofit organisations across all areas of agriculture. Each of these societies has an individual

identified as a member of the CAST Board of Representatives and these people are involved with the various work groups that write proposals for CAST publications.

#### **How is effective science communication recognised by CAST?**

CAST is extremely effective in recognising scientific communication in the form of the Borlaug CAST Communication Award. This award, originally named the Charles Black Award in recognition of one of the founders of CAST, is one of the marquee recognition events in agricultural communication. Two months ago, at the National Press Club in Washington, DC, I had the privilege of announcing the 2015 Borlaug CAST Communication Award recipient, Dr Channapatna S Prakash of Tuskegee University. I will give Dr Prakash his award at the World Food Prize this coming October.

#### **What have been some of CAST's greatest accomplishments to date?**

In my mind, CAST's greatest accomplishment has been to become the key source that policy makers and the public look to for factual, unbiased and accurate scientific information. Since its beginnings in the early 1970s, CAST has been time tested and proven as a credible source of reliable information.

[www.cast-science.org](http://www.cast-science.org)



#### **A FITTING TRIBUTE – DR NORMAN BORLAUG**

In January 2010, CAST Issue Paper 45, *Agricultural Productivity Strategies for the Future: Addressing U.S. and Global Challenges*, was published with an Introduction written by Dr Norman Borlaug, founder of the World Food Prize and 1970 Nobel Peace Prize Laureate. He submitted his Introduction in 2009 about three months before his death. We recognised that this Issue Paper contained Dr Borlaug's last written words to science. Therefore, a team was assembled consisting of representatives from CAST, CropLife, and BIO to organise a townhall meeting to celebrate Dr Borlaug's life. Held in February 2010, the team invited approximately 200 people, but there was a blizzard and only 30 people made it. However, they were astounded by the social media engagement – with an audience of at least 80,000 people and more than 100,000 tweets. The focus was Dr Borlaug's legacy, and CAST Issue Paper 45 was used as a framework from which much still needs to be accomplished to continue his legacy. The complete two-hour townhall meeting is available on the CAST website.