CAST Issue Paper 60

Genome Editing in Agriculture: Methods, Applications, and Governance
Released July 9, 2018

Chair: Adam Bogdanove, Cornell University; 10-member task force

Release/Rollout
On July 9, Dr. Adam Bogdanove, the task force chair, gave a presentation to an audience at The Association of Public and Land-grant Universities offices. He then conducted briefings for House staffers at a noon National Coalition for Food and Agricultural Research (NC-FAR) lunch seminar, which was followed by a presentation to Senate staffers in the afternoon, also in coordination with NC-FAR. Approximately 70 attended these three briefings.

In-kind Contributions: 260 volunteer hours; $19,240 monetary value

Press Release (results two weeks after release)
- Press release went to 8,771 e-contacts (3,322 media) resulting in 4,239 opens/interactions
- 299,613 headline impressions, 1,448 media deliveries, and 149 online pickups on press release through PRWeb.
- A sampling of sites where the release was picked up: AgriMarketing, AgriTech Tomorrow, ASPB Plant Science today, B4FA Biosciences for Farming in America, BioPortfolio, Dairy Business, Genetic Engineering and Society Center, Hawaii News Now, International Service for the Acquisition of Agri-biotech Applications, Iowa State University CALS (July 2, 2018 newsletter), Lancaster Farming, One News Page (United Kingdom), Oklahoma Farm Report, PortalTaxi, The Bullvine, and several news channel affiliates.

Follow-On Activities
- Video of Dr. Bogdanove’s presentation and slides posted on CAST website and YouTube. Click here to view. (493 views as of July 9, 2020)

Paper Distribution: 12,224
- Issue Paper and Ag quickCAST Downloads—2 years after release: 11,447
- Distributed more than 900 copies of printed issue paper (as of July 24, 2018)

Indirect Paper Distribution

ACSESS Digital Library
https://dl.sciencesocieties.org/issue-papers

BGF biotech-gm-food, July 9, 2018
https://www.biotech-gm-food.com/presseschau-juli-2018

This report last updated 7/9/2020.
DairyProducer.ca, July 11, 2018 (posted Ag quickCAST)
http://dairyproducer.ca/genome-editing-in-agriculture-methods-applications-and-governance/

Context, Fall 2018

Gen Au Rheinau, Saatschutz für die Welt von morgen (Translation: Seed protection for the world of tomorrow), September 9, 2018
https://gen-au-rheinau.ch/aktuelles/

HIGH AGRICULTURAL TECHNOLOGY RESEARCH INSTITUTE FOR MEKONG DELTA, September 14, 2018
http://hatri.org/en/-announcementresults-training-workshop-invinh-long-sweet-potato/n1025.mt24h

North Carolina State University, Genetic Engineering and Society Center. Publications by affiliated faculty and students. (link to paper)
https://research.ncsu.edu/ges/publications/faculty-publications/

SemanticScholar.org
https://www.semanticscholar.org/paper/Genome-Editing-in-Agriculture-%3A-Methods-%2C-%2C-and-A-Bogdanove/55e82c7f4693d4125ec8e237db7b986730c96c8

Personal Mentions

Lee Van Wychen—Executive Director of Science Policy, National and Regional Weed Science Societies (rollout attendee)
Mentioned it in several meetings with agency staff and circulated a summary to members of the Weed Science Society of America, North Central Weed Science Society, Northeastern Weed Science Society, Southern Weed Science Society, and Western Society of Weed Science via newsletter.

Articles and Web Mentions

AgriPulse, July 11, 2018
https://www.agri-pulse.com/articles/11204-ag-scientists-draw-a-road-map-for-gene-editing

AgBiotech NC State Extension, July 11, 2018

Biotechnology and Innovation, CiB Blog - Biotechnology Information Center, Portugal, May 8, 2019,
https://cibpt.wordpress.com/tag/edicao-de-genoma/

Bovine Veterinarian, July 10, 2018
https://www.bovinevetonline.com/article/gene-editing-potential-and-perceptions-0

Cornell University College of Agriculture and Life Sciences, School of Integrative Plant Science
Recent publications from the SIPS community – July 19, 2018
https://blogs.cornell.edu/sips/page/7/

This report last updated 7/9/2020.
Crop Biotech Update, July 11, 2018

Dairy Herd Management, July 9, 2018
https://www.dairyherd.com/article/gene-editing-potential-and-perceptions

Drovers, July 10, 2018
https://www.drovers.com/article/gene-editing-potential-and-perceptions

Farm Journal AgTech, July 17, 2018
preferences.farmjournal.com/index.php/email/emailWebview?mkt_tok=eyJpIjoiWkRZeU5HRmxNREI6T
mpjIClIsInQlIlrWDY0SHlkekR6c3dkTFNpSmFid0c4MzlXQWxUQ0lkZHpyRZQwaXFOMHpkcllI2Q0xB
SVpYSUI0RGNURTMrVAHczb0ZFaUxzl1Y5eiJpU0ZKbDzhZzE2NWE3U3dQQnpSTMrcUwyZ3Y2ZUV
SOFBtK2VNM3BkS3hxVEJNT2NiZDdZUCJ9

Farm Journal's Pork, July 18, 2018
https://www.porkbusiness.com/article/gene-editing-potential-and-perceptions

Fundación Antama, Nuevo documento (en inglés) en el que se explican las claves de la mejora
genética en agricultura (Translation: New document (in English) in which the keys of genetic
improvement in agriculture are explained), August 21, 2018
http://fundacion-antama.org/nuevo-documento-en-ingles-en-el-que-se-explican-las-claves-de-la-mejora-
genetica-en-agricultura/

The In Vitro Report, A Publication of the Society for In Vitro Biology, October 1, 2018
at-2018-sivb-meeting/

National Coalition for Food and Agricultural Research, Highlights from 2018 Hill Seminar Series,
December 26, 2018
https://www.ncfar.org/NC-FAR_Hill_Seminars_Highlights.pdf

Citations
Asian Biotechnology & Development Review, Vol. 20 Issue 1/2, p89-97, Regulating Genome Edited
Crops and European Court of Justice Ruling, Mar-Jul 2018.
725566&AN=133492493&h=LghDraCSea8p%2f7CRKLe7vGWut0S%2b9HGZEIPRIUDQa0H74Im9NW
xEP6EYnEQjYIWBb6KEUycsCNUmhs88fw%3d%3d&crl=c&resultNs=AdminWebAuth&resultLocal
=ErrCrlNotAuth&crlhashurl=login.aspx%3dtrue%26profile%3dexpert%26crltype%26crl%26host%26aut
htype%26crl%26host%26crl%26host%26crl%26host%26crl%26host%26crl%26host%26crl%26host%26crl

Current Research in Biotechnology, Volume 1, November 2019, Pages 11-21, Risk and safety
considerations of genome edited crops: Expert opinion

Food Next, Doing so makes the crops healthier! "Emerging Precision Breeding Technologies" being
researched by agriculture around the world! (translated title), 5/10/2019
https://www.foodnext.net/science/technology/paper/5616731667

Frontiers in Bioengineering and Biotechnology, Familiarity in the Context of Risk Assessment of
Transgenic Crops: Focus on Some Countries in the Americas, January 28, 2020
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6997124/

This report last updated 7/9/2020.
Journal AgroBiogen, *Genome-Edited Plants and the Challenges of Regulating Their Biosafety in Indonesia*, Volume 15, December 2019
https://www.researchgate.net/publication/338342782_Genome-Edited_Plants_and_the_Challenges_of_Regulating_Their_Biosafety_in_Indonesia

Journal of Law and Bioscience, *Genetic identity concerns in the regulation of novel reproductive technologies*, April 20, 2020

New Phytologist, *A comparison of the EU regulatory approach to directed mutagenesis with that of other jurisdictions, consequences for international trade and potential steps forward*, December 13, 2018

Social Media

Facebook—
Mid America CropLife Association, October 21, 2019
https://www.facebook.com/MACroplifeA/posts/3060070850734229

Mid America CropLife Association, July 26, 2019
https://www.facebook.com/MACroplifeA/posts/2819051058169544

CAST, July 14, 2018
https://www.facebook.com/CASTagScience/posts/1815690338525754

Antonio Luiz, July 9, 2018

Agri-Pulse Communications, Inc, July 16, 2018
https://www.facebook.com/AgriPulseDC/posts/2004397159570946

Biosafety South Africa, July 11, 2018
https://www.facebook.com/biosafetysouthafrica/posts/1735114749889973

Biosciences for Farming in Africa—B4FA, July 11, 2018
https://www.facebook.com/2015B4FA/posts/1757093821042488

CAST, July 9, 2018
https://www.facebook.com/CASTagScience/posts/1803574296404025
1 like and 1 share

CAST, July 5, 2018
https://www.facebook.com/CASTagScience/posts/1803529773075144
1 like

CAST, July 1, 2018
https://www.facebook.com/CASTagScience/posts/1794003824027739

CAST, June 29, 2018
https://www.facebook.com/CASTagScience/posts/1793848807376574

*This report last updated 7/9/2020.*
This report last updated 7/9/2020.
Crop Production Services MS, @ServicesCrop, July 11, 2018
https://twitter.com/ServicesCrop/status/1016971632466788352
1 like

C.S. Prakash @AgBioWorld, June 26, 2018
https://twitter.com/AgBioWorld/status/1011688340079431681
5 retweets and 1 like

DairyBuisness @dairybusiness, July 9, 2018
https://twitter.com/dairybusiness/status/1016363687408558080
1 like

Dairy Producer.ca @dairyproducerca, July 11, 2018
https://twitter.com/dairyproducerca/status/1017064417127751682
2 likes

Dennis Eriksson @cultivision, June 25, 2018
https://twitter.com/cultivision/status/1011344153530204163
2 likes

Genetic Engineering & Society Center @GESCenterNCSU, July 9, 2018
https://twitter.com/GESCenterNCSU/status/1016423472153718786
2 comments, 8 likes, and 4 retweets

Genetic Engineering & Society Center @GESCenterNCSU, July 9, 2018
https://twitter.com/GESCenterNCSU/status/1016461157023014912
1 comment, 2 retweets, and 1 like

Genetic Engineering & Society Center @GESCenterNCSU, July 10, 2018
https://twitter.com/GESCenterNCSU/status/1016663745957974016
1 like

Keith Edmisten @NCcropbiotech, July 11, 2018
https://twitter.com/NCcropbiotech/status/1017148372371804160
1 like

Kristyn Nanlal Khetia @Kaenkay, July 13, 2018
https://twitter.com/Kaenkay/status/1017763635572207617
1 like

Leighonna Bernstein @LeighonnaB, July 9, 2018
https://twitter.com/LeighonnaB/status/1016352724223430657
1 like

Magdalen Lindeberg @MagdalenLindebe, July 11, 2018
https://twitter.com/MagdalenLindebe/status/101712610139041793
3 retweet and 5 likes

Marco Winters @marco_winters, July 10, 2018
https://twitter.com/marco_winters/status/1016610135211421697
1 retweet and 2 likes

Nat Wheat Foundation @NationalWheat, July 11, 2018

This report last updated 7/9/2020.
https://twitter.com/NationalWheat/status/1017107564541161477

NCStateSPIA @NCStateSPIA, July 9, 2018
https://twitter.com/NCStateSPIA/status/101644309193376514
5 likes

Osman Mewett @OsmanCropLife, July 16, 2018
https://twitter.com/OsmanCropLife/status/1018997599527813120
5 retweets and 6 likes

Rhona Applebaum @RhonaA_PhD, July 9, 2018
https://twitter.com/RhonaA_PhD/status/1016299637706252288
1 retweet and 1 like

Ron Hays @Ron_on_RON, July 9, 2018
https://twitter.com/Ron_on_RON/status/1016356332067176449
1 retweet and 1 like

Ria de Grassi @CAFarmersDtr, July 7, 2018
https://twitter.com/CAFarmersDtr/status/1015583514794704896
1 like

Stephen Baenziger @Huskerwheat, July 9, 2018
https://twitter.com/Huskerwheat/status/1016273024209883138
1 retweet and 1 like

Stephen Baenziger @Huskerwheat, July 21, 2018
https://twitter.com/Huskerwheat/status/102087788676139008
3 likes

Stephen Mellor @sp_mellor, July 16, 2018
https://twitter.com/sp_mellor/status/101879063341947904

Tom Oswald @notilltom, July 1, 2018
https://twitter.com/notilltom/status/1013589717013745664
1 like

LinkedIn –
Aaron Hummel, July 14, 2018
5 likes

CAST, July 10, 2018

CAST, July 9, 2018

CAST, July 7, 2018

CAST, July 5, 2018

This report last updated 7/9/2020.
CAST, July 1, 2018

CAST, June 29, 2018

CAST, June 25, 2018

CAST, June 15, 2018

CAST, June 13, 2018

3 likes and 2 shares

CAST, June 15, 2018

David Songstad, June 14, 2018

6 likes

Petra Jorasch, June, 14, 2018

Blogger –
Gene Editing in Agriculture: Publication Release and Recent Research, June 10, 2018

Gene Editing–Touching All Avenues of Ag, June 15, 2018

This report last updated 7/9/2020.