

October 2017

Attorney General Ken Paxton
Office of the Attorney General
300 W. 15th Street
Austin, TX 78701

Re: Request for Attorney General Paxton to join the investigation of the Bayer-Monsanto merger

Dear Attorney General Paxton:

We write to express our concerns about consolidation in the seed and agrochemical industry, particularly the pending merger of Bayer AG (Bayer) with the Monsanto Company (Monsanto).

The proposed Bayer-Monsanto merger would cap off a series of mergers in the sector. In the last two years, Dow Chemical Company (Dow) and E. I. du Pont de Nemours and Company (DuPont) have merged,¹ and China National Chemical Corporation (ChemChina) has acquired SyngentaAG (Syngenta).²

If the Bayer acquisition of Monsanto goes forward, it could result in just three powerful multinational corporations controlling the seed and agrochemical industries, to the detriment of Texas farmers and consumers.

Under the Clayton Act, which governs mergers that would substantially reduce competition in the market, State Attorneys General have enforcement authority, in addition to the Department of Justice (DoJ).³ More than a dozen State Attorneys General have already joined the DoJ's investigation of the proposed Bayer-Monsanto merger.⁴ Particularly in light of the recent announcement by European authorities that they are closely reviewing the deal,⁵ there is still time for Texas to join these investigations.

Given the impact of this potential merger on Texas, and our state's longstanding history of leadership in agriculture antitrust, we request that your office join the DoJ's investigation of this proposed merger.

I. This merger will greatly impact one of Texas' most important industries

Agriculture contributes more than \$100 billion annually to Texas' economy, and one in seven Texans works in agriculture, forestry, or related fields.⁶

Cotton provides an important example of the impact of this merger on the industry. Texas is the largest cotton producing state in the United States, with an estimated 6.9 million acres to be harvested in 2017.⁷ Cotton is Texas' largest crop in acreage and value, contributing \$2.2 billion to the state economy annually. In 2006, researchers estimated that approximately 48,000 jobs are supported by the cotton industry in the state.⁸

A recent study by the Agricultural and Food Policy Center at Texas A&M warned of the consequences of the merger on the cotton industry: "The Monsanto-Bayer merger is projected to

substantially increase seed prices for cotton. The merger would give Monsanto-Bayer about 70% of the market.⁹”

Cotton is not the only area of concern for this merger. As discussed below, the evidence suggests that these mergers will substantially lessen competition in almost **all** of the seed and agrochemical markets, leading to reduced choices and increased prices for farmers.

II. The merger will further concentrate an already highly concentrated market.

A merged Bayer-Monsanto would become the largest seed and pesticide company in the world by a large margin, putting it in a position to control farmers, related businesses, and consumers.

The crop seed industry has suffered the greatest increase in concentration over time of any of the agricultural inputs studied according to the USDA.¹⁰ In 1996 there were more than 400 independent seed companies, but this number fell to around 100 by 2009¹¹ -- a 75% drop in just over a decade. The proposed merger will exacerbate this concentration.

With respect to vegetable seeds, the proposed merger joins the largest global vegetable seed company (Monsanto) with the fourth largest (Bayer).¹² During the past three decades, seed mergers have substantially consolidated the global vegetable seed industry.¹³ According to researchers from the University College London Laws, “concentration of the seed industry is remarkable even considering traditionally high food sector concentration.”¹⁴

Monsanto has aggressively pursued a merger strategy that diversified both its seed portfolio and geographic markets.¹⁵ From 1995 to 2015, Monsanto purchased 19 seed companies — about two-thirds of the company’s takeovers.¹⁶ This has included vegetable seed lines and brands. In 2005, Monsanto bought vegetable seed company Seminis for over \$1 billion.¹⁷ The Seminis deal gave Monsanto control of 39 percent of the U.S. vegetable seed market and 26 percent of the global market.¹⁸ In 2008, it added the \$800 million purchase of De Ruiter Seeds that specialized in greenhouse vegetable seeds.¹⁹ While Bayer had essentially had no presence in the seed industry until its purchase of Aventis Crop Science, as of 2015, Bayer had \$443 million in vegetable seed sales.²⁰

Antitrust enforcers use the Herfindahl-Hirschman Index (“HHI”), together with other tools, to determine whether a merger would cause excessive concentration, increased market power, and decreased competition.²¹ A highly concentrated market has an HHI above 1,800 and an increase in concentration of 100 triggers a presumption that the merger is likely to enhance market power.²²

For vegetable seeds, a conservative assessment finds that the current market is moderately concentrated with a Herfindahl-Hirschman Index (HHI) of over 1,500 and that the proposed merger would increase the HHI to 2,300 — an HHI increase of nearly 800, eight times the amount necessary to trigger concern.²³

For cotton seed, an independent expert concluded that the pre-merger HHI is highly concentrated at 2,760, and “the increase in the HHI — between 1,705 to 2,723 points in various parts of the country — is much higher than many other cases in which the United States has demonstrated a prima facie case.”²⁴ Similarly, the Texas A&M study found:

The merger would increase market concentration by about 2400 HHI (Herfindahl-Hirschman Index) points, from 2804 to 5205. This high starting HHI value and the dramatic increase easily qualifies the proposed Monsanto-Bayer merger as likely to enhance market power in the seed market for cotton under DOJ/FTC merger guidelines. The market-share weighted expected price increase is 18.2%.²⁵

Moreover, the concentration of seed traits is also concerning.²⁶ Seed traits are intellectual property of the company that develops them through genetic engineering, enabling the company to control the trait through licensing agreements. Monsanto already possesses a 97 percent share for soybean traits, a 75 percent share for corn traits, and a 95 percent share for cotton traits.²⁷ A combined Bayer-Monsanto would have a greater share of the seed market where its traits are promoted. These market shares—by any antitrust metric—would be considered monopolistic.²⁸

III. These mergers will not create efficiencies that offset their anticompetitive impacts.

The companies will argue that the primary benefit of a merger is the creation of efficiencies that can be passed on to consumers, such as the decrease in prices and increase in new quality products. However, the merger guidelines state that “antitrust laws give competition, not internal operational efficiency, primacy in protecting customers.”²⁹

In fact, history shows us that it is likely that the merger will continue the trend **of increasing prices for consumers**. As genetically modified (“GM”) crops have begun to dominate seed and trait markets, and the number of firms manufacturing GM seeds and traits has diminished, costs of seeds have risen steeply.

Between 1985 and 2000, the “Big Six” agricultural seed firms acquired about 75 percent of the small to medium companies carrying out biotechnology research.³⁰ Since then, use of GM crop varieties has soared (accounting for 93 percent of the U.S. cotton market) and costs have followed suit.³¹ As USDA researchers observed, “for the past two decades, the prices of farm inputs have been rising faster than the prices U.S. farmers receive for their crops.”³² Between 1994 and 2010, **crop seed prices more than doubled** relative to the prices farmers received for commodity crops.³³ That difference is greater than any claimed yield increases.

The increase in prices will especially impact cotton production. As with past consolidation in the agricultural industry, the Bayer-Monsanto merger will continue to increase input costs for cotton. The Texas A&M University study found the combined effect of a Bayer-Monsanto merger and Dow-DuPont merger “would cause the following expected increases in seed prices: 2.3 percent for corn, 1.9 percent for soybeans, *and 18.2 percent for cotton*,” with a 25 percent chance that prices would increase “2.6 percent for corn, 2.1 percent for soybeans, *and 20.2 percent for cotton*.”³⁴

Moreover, the proposed merger of Bayer and Monsanto will have serious consequences for dairy farmers. Given that corn, soy, wheat and alfalfa are all major feed crops for dairy cattle and with dairy prices well below production costs, farmers can hardly afford even higher seed costs. We

have already seen seed prices increase due to the Dow-DuPont merger, and a Bayer-Monsanto merger will only compound the problem.

IV. The seed and agrochemical industry is not an easy market for new competitors to enter, and thus there will not be new actors in the market to increase competition against the newly merged companies.

Antitrust law also considers how easy or hard it is for a new company to enter the market, since the entry of new companies could limit the market power of the newly merged company. If the market is easy to enter, the merged company is less likely to be able to profitably maintain a price increase.³⁵ But the seed and agrochemical markets are **not** easy to enter.

The vertical integration of traits, seeds, and chemicals currently produced independently by Dow, DuPont, Bayer and Monsanto make it hard to enter the market. “Packages of seeds-traits-and-chemicals that only work with one another, such as Monsanto’s Roundup Ready package, already are making it harder for smaller rivals to compete.”³⁶ After these mergers, even more traits, seeds, and herbicides could potentially be foreclosed. Monsanto has explicitly stated that it looks forward to integrating its trait technologies with Bayer’s chemicals, which would lead to even more specialized products and monopolization that would be practically impossible for new firms to match or compete with.³⁷

The merger would further limit farmers’ choices for which seeds best suit their needs and would force independent seed producers and customers to rely primarily on Bayer-Monsanto and Dow-DuPont traits.³⁸ The result would be a more tightly integrated “platform” of components that are bound together both economically and technologically for the potential purpose of creating exclusive packages of traits, seeds, and chemicals that do not “interoperate” with rival products. This will likely raise entry barriers for smaller rivals and increase the risk that they are foreclosed from access to technology and other resources needed to compete effectively.

Organic farms in Texas will face particular problems from the merger. To be certified, organic farmers must buy organic seed unless it is not commercially available. Demand for organic seed far outstrips the commercial supply, so many organic farmers do use non-organic seed. Even then, though, they are required to buy seed that does not have any GM traits nor can the seed be chemically treated.³⁹ In addition, because organic farmers cannot use pesticides or synthetic fertilizers, the seeds they grow must be adapted to their particular environmental conditions.⁴⁰ Without a competitive seed market, organic farmers are unlikely to be able to find seeds that have not been treated with pesticides, that do not have GM traits, and that are well-suited for their growing conditions.

Further, all farmers, but especially organic farmers, will have fewer options for germplasm for breeding and seed production. For example, of the over 1,900 hybrid lines available, no more than 8 percent are available to farmers in a non-GM and untreated form.⁴¹ Farmers will have fewer options and access to independent breeding and seed production as a result of the merger.

V. The merger will detrimentally reduce head-to-head competition within the seed and agrochemical markets.

The impact of the merger is increased by the fact that Bayer and Monsanto are direct competitors in both the genetically modified seeds and agrochemical/ pesticide markets.⁴²

For example, in the agrochemical market, Monsanto's Roundup herbicides is the largest brand globally.⁴³ Bayer's LibertyLink line of pesticides—tailored to and packaged with Bayer's LibertyLink crop seed—appeared poised to be the greatest competitor to Monsanto's longstanding best seller.⁴⁴

As more and more superweeds develop (weeds that have developed resistance to herbicides like Roundup)⁴⁵, Texas farmers need a competitive industry that provides fair prices for a range of weed control options.

A Bayer-Monsanto merger eliminates competition not only in the sale of products such as these, but in the innovation of them as well. In crop seed and biotechnology, eight seed-biotechnology companies accounted for 76 percent of all research and development spending by this industry in 2010.⁴⁶ And in agricultural chemicals, five companies (each with over \$2 billion sales in 2010) were responsible for over 74 percent of the research and development in this sector.⁴⁷

Bayer and Monsanto have two of the largest in-house research and development departments in the industry. Given the high cost of bringing a new product to market (often in excess of \$100M⁴⁸), continued competitive pressure is needed to spur innovation. A merger of these two research and development departments would considerably diminish that pressure.⁴⁹

VI. The history of anticompetitive behavior within the seed and agrochemical markets mandates a closer look at the current proposed merger.

Antitrust law also looks at the evidence of historical anticompetitive behavior. Historical anticompetitive events—including the “impact of recent mergers, entry, expansion, or exit of the relevant market”—can be “direct comparisons based on experience” that “are informative regarding the competitive effects of the merger.”⁵⁰

Monsanto has previously been investigated by the Texas State Attorney General for antitrust violations regarding its business strategies and licensing agreements, which included squeezing competitors and controlling smaller seed companies to protect its dominance over the multibillion-dollar market for genetically altered crops.⁵¹

VII. The Texas Attorney General should join the federal investigations of this merger to protect Texas' farmers and consumers from the potentially devastating effects.

An analysis of the merger guideline factors based on current data regarding the merging parties shows a high possibility of the creation of monopolies at worst and substantial anticompetitive effects at the least. The Texas Attorney General can play an important role in protecting the farmers, consumers, and economy of Texas and the rest of the nation by joining the Department of Justice and other State Attorney Generals.

Respectfully,

[SIGNATORIES]

¹ Diane Bartz, *Dow, Dupont Wins U.S. antitrust approval with conditions*, 2017, Reuters. <https://www.reuters.com/article/us-dupont-m-a-dow-idUSKBN1962SN>

² Diane Bartz, *ChemChina, Syngenta win U.S. antitrust approval for deal*, 2017, Reuters. <http://www.reuters.com/article/us-syngenta-ag-m-a-china-natl-chem-idUSKBN176207>

³ 15 U.S.C. § 26; 15 U.S.C. § 15c.

⁴ *Id.*

⁵ <https://www.nytimes.com/2017/08/22/business/dealbook/bayer-monsanto-eu.html?mcubz=0& r=0>

⁶ Texas Department of Agriculture, *Texas Ag Stats*. <http://texasagriculture.gov/About/TexasAgStats>

⁷ Jessica Domel, *Texas Cotton Acreage on the Rise*, Texas Farm Bureau. 2017. <http://texasfarmbureau.org/texas-cotton-acreage-rise/>

⁸ John R.C. Robinson and Dean A. McCorkle, *Trend and Prospects for Texas Cotton*, Texas A&M, 2006. <http://agecon2.tamu.edu/people/faculty/robinson-john/Cotlookarticle.pdf>

⁹ Henry Bryant, et al., “Effects of Proposed Mergers and Acquisitions Among Biotechnology Firms on Seed Prices,” Agricultural and Food Policy Center, Texas A&M. September 2016. *See also* Maurice E. Stucke & Allen P. Grunes, *An Antitrust Review of a Bayer-Monsanto Merger*, Konkurrenz Group, 7 (Jul. 22, 2016), available at <https://s3-us-west-2.amazonaws.com/sou-assets/Konkurrenz-findings-on-Bayer-Monsanto.pdf>.

¹⁰ Keith O. Fuglie, et al., *Research Investments and Market Structure in the Food Processing, Agricultural Input, and Biofuel Industries Worldwide*, USDA Economic Research Service, vi (Dec. 2011) https://www.ers.usda.gov/webdocs/publications/err130/11777_err130_1_.pdf.

¹¹ Matthew Wilde, *Independent Seed Companies a Dying Breed*, The Courier (May 31, 2009) http://wfcourier.com/business/local/independent-seed-companies-a-dyingbreed/article_7cef1ffc-b0bb-56a8-8d83-faf894bf76ad.html. *See also* Carl Pray, James F. Oehmke, & Anwar Naseem, *Innovation and Dynamic Efficiency in Plant Biotechnology: An Introduction to the Researchable Issues*, 8(2&3) *AgBioForum* 52, 60 (2005); U.N. Conference on Trade and Dev., *Tracking the Trend Towards Market Concentration: The Case of the Agricultural Input Industry*, 5, 9-10 (Apr. 2006).

¹² Vilmorin & Cie (2016) at 21.

¹³ Liu, Zhen et al. “The sectoral innovation system of the Dutch vegetable breeding industry.” *Wageningen Journal of Life Sciences*. Vol. 74-75. 2015 at 27.

¹⁴ Lianos, Ioannis et al. University College London Laws. “The Global Seed Market, Competition Law and Intellectual Property Rights: Untying the Gordian Knot.” Research Paper 2-2016. February 2016 at 19.

¹⁵ Fuglie, Keith O. et al. USDA. Economic Research Service (ERS). “Research Investment and Market Structure in the Food Processing, Agricultural Input and Biofuel Industries Worldwide.” ERR-No. 130. December 2011 at 34.

¹⁶ Lianos et al. (2016) at 15.

¹⁷ Pollack, Andrew. “Monsanto buying leader in fruit and vegetable seeds.” *New York Times*. January 25, 2005.

¹⁸ Howard, Philip H. “Visualizing consolidation in the global seed industry: 1996-2008.” *Sustainability*. December 8, 2009 at 1276.

¹⁹ Tomich, Jeffrey. “Seeds grow Monsanto’s business.” *St. Louis Post-Dispatch*. September 20, 2009.

²⁰ Fuglie et al. (2011) at 34; Bayer AG. “Annual Report 2016 Augmented Version.” 2016 at 46.; Vilmorin & Cie (2016) at 36.; 2015 Euros converted to U.S. dollars with U.S. Federal Reserve Board. “Foreign Exchange Rates—G.5A Annual.” January 4, 2017.

²¹ Federal Guidelines § 5.3; NAAG Guidelines, §4.

²² NAAG Guidelines, Executive Summary 8-9.

²³ https://www.foodandwaterwatch.org/sites/default/files/coalition_submission_to_doj_on_impact_of_bayer-monsanto_merger_on_vegetable_seeds.pdf

- ²⁴ Maurice E. Stucke & Allen P. Grunes, *An Antitrust Review of a Bayer-Monsanto Merger*, Konkurrenz Group, 8 (Jul. 22, 2016), available at <https://s3-us-west-2.amazonaws.com/sou-assets/Konkurrenz-findings-on-Bayer-Monsanto.pdf>.
- ²⁵ Henry Bryant, et al., “Effects of Proposed Mergers and Acquisitions Among Biotechnology Firms on Seed Prices,” Agricultural and Food Policy Center, Texas A&M. September 2016. See also Maurice E. Stucke & Allen P. Grunes, *An Antitrust Review of a Bayer-Monsanto Merger*, Konkurrenz Group, 7 (Jul. 22, 2016), available at <https://s3-us-west-2.amazonaws.com/sou-assets/Konkurrenz-findings-on-Bayer-Monsanto.pdf>.
- ²⁶ Since their commercial introduction in 1996, transgenic seeds are now used for over 90 percent of all corn, cotton, and soybeans planted in the U.S. USDA, *Genetically Engineered Varieties of Corn, Upland Cotton, and Soybeans, by State and for the United States 2000-16* (Jul. 14, 2016) available at <https://www.ers.usda.gov/data-products/adoption-of-genetically-engineered-crops-in-the-us.aspx>.
- ²⁷ Approximately half of U.S. farmland grows these three crops. As of 2009, the “Big Six” firms—Monsanto, Bayer, BASF, Syngenta, Dow, and DuPont— held more than 95 percent of seed trait acres for corn, soybeans, and cotton in the U.S. Seed containing Monsanto traits accounting for 90 percent of these acres. Keith O. Fuglie, et al., *Research Investments and Market Structure in the Food Processing, Agricultural Input, and Biofuel Industries Worldwide*, USDA Economic Reserves Services, vi (Dec. 2011) https://www.ers.usda.gov/webdocs/publications/err130/11777_err130_1_.pdf.
- ²⁸ Diana L. Moss, *Transgenic Seed Platform: Competition Between a Rock and a Hard Place? Addendum*, American Antitrust Institute, 5 (April 5, 2010), http://www.antitrustinstitute.org/sites/default/files/Addendum%20to%20AAI%20White%20Paper_Transgenic%20Seed.4.5_040520101107.pdf
- ²⁹ Federal Guidelines § 10.
- ³⁰ Testimony of Diana Moss, Before the Senate Judiciary Committee, *Consolidation and Competition of the U.S. See and Agrochemical Industry*, American Antitrust Institute (Sept. 20, 2016), available at <https://www.judiciary.senate.gov/imo/media/doc/09-20-16%20Moss%20Testimony.pdf>.
- ³¹ USDA, *Genetically Engineered Varieties of Corn, Upland Cotton, and Soybeans, by State and for the United States 2000-16* (Jul. 14, 2016) available at <https://www.ers.usda.gov/data-products/adoption-of-genetically-engineered-crops-in-the-us.aspx>.
- ³² Fuglie et al., *Rising Concentration in Agricultural Input Industries Influences New Farm Technologies*, USDA Economic Research Service, 4-5 (Dec. 2012), available at https://www.researchgate.net/publication/235341940_Rising_Concentration_in_Agricultural_Input_Industries_Influences_New_Farm_Technologies.
- ³³ Keith O. Fuglie, et al., *Research Investments and Market Structure in the Food Processing, Agricultural Input, and Biofuel Industries Worldwide*, USDA Economic Reserves Services, 11-13 (Dec. 2011) https://www.ers.usda.gov/webdocs/publications/err130/11777_err130_1_.pdf.
- ³⁴ Texas A&M University Agricultural and Food Policy Center, *Effects of Proposed Mergers and Acquisitions Among Biotechnology Firms on Seed Prices* (Sep. 2016), available at https://www.afpc.tamu.edu/pubs/0/675/WP_16-2.pdf (emphases added).
- ³⁵ NAAG Guidelines § 5.11.
- ³⁶ David J. Lynch & Guy Chazan, *Bayer-Monsanto Sows Seeds of Doubt Among Regulators*, Financial Times (May 30, 2016) <https://www.ft.com/content/e76f4d8a-23f2-11e6-9d4d-c11776a5124d>.
- ³⁷ Dale Hildenbrandt, *Benefits of Bayer-Monsanto Merger Explained*, 2017, Farm and Ranch Guide. http://www.farmandranchguide.com/news/regional/benefits-of-bayer-monsanto-merger-explained/article_f230b974-2852-11e7-aa34-b3795818dbcf.html
- ³⁸ Id.
- ³⁹ Organic Seed Alliance. *Key Findings*, State of Organic Seed (June 22, 2016) available at <https://stateoforganicseed.org/key-findings/>
- ⁴⁰ Organic Seed Alliance. *Key Findings*
- ⁴¹ Organic Seed Alliance. *The privatization of seed and impacts on organic seed innovation*, State of Organic Seed (Jun. 22, 2016) available at <https://seedalliance.org/2016/just-released-state-of-organic-seed-2016/>
- ⁴² Federal Guidelines, § 6. See also Testimony of Diana Moss, Before the Senate Judiciary Committee, *Consolidation and Competition of the U.S. See and Agrochemical Industry*, American Antitrust Institute, 7 (Sept. 20, 2016), available at <https://www.judiciary.senate.gov/imo/media/doc/09-20-16%20Moss%20Testimony.pdf> (quoted Federal Guidelines § 6.4).
- ⁴³ Monsanto, *Ideas Big Enough for a Growing World: 2015 Annual Report*, 17 (2015) available at http://www.monsanto.com/investors/documents/annual%20report/2015/2015_annual_report_fullweb.pdf.
- ⁴⁴ Maurice E. Stucke & Allen P. Grunes, *An Antitrust Review of a Bayer-Monsanto Merger*, Konkurrenz Group, 6 (Jul. 22, 2016), available at <https://s3-us-west-2.amazonaws.com/sou-assets/Konkurrenz-findings-on-Bayer-Monsanto.pdf>. Consequentially, South Africa has required Bayer to divest its LibertyLink assets. However, the asking price of \$2.5 billion places the technology out of reach for new or upcoming firms. Bayer has also offered the assets as separate packages to reduce cost, but the economic

viability of the herbicide and the trait technologies are integrally linked and would be an ineffective competitor for RoundUp if sold to different companies.

⁴⁵ UGA Extension, *UGA Program for Controlling Glyphosate-Resistant Palmer Amaranth in 2016 Cotton*, <http://extension.uga.edu/publications/detail.cfm?number=C952>.

⁴⁶ Keith Fuglie, Paul Heisey, John King, and David Schimmelpfennig, *Rising Concentration in Agricultural Input Industries Influences New Farm Technologies*, USDA Economic Research Service (Dec. 3, 2012), <https://www.ers.usda.gov/amber-waves/2012/december/rising-concentration-in-agricultural-input-industries-influences-new-technologies/>.

⁴⁷ Keith Fuglie, Paul Heisey, John King, and David Schimmelpfennig, *Rising Concentration in Agricultural Input Industries Influences New Farm Technologies*, USDA Economic Research Service (Dec. 3, 2012), <https://www.ers.usda.gov/amber-waves/2012/december/rising-concentration-in-agricultural-input-industries-influences-new-technologies/>.

⁴⁸ See Phillips McDougall Ltd., *Directions in Global Research and Development for Crop Protection Products: Presentation at APVMA Future Forum*, 4 (Nov. 5, 2014) available at http://apvma.gov.au/sites/default/files/docs/matthew_phillips_presentation_web_version.pdf.

⁴⁹ We are already experiencing elimination of research funding. In the months since DuPont agreed to buy Dow, executives have announced the plan to cut \$300 million from the research budget. See Alexander Tullo, *DuPont Will Dissolve Central Research*, C&EN (Dec 18, 2015) <http://cen.acs.org/articles/93/web/2015/12/DuPont-Dissolve-Central-Research.html> Further, DuPont planned to cut a total of 10 percent of its research budget for 2016 and to reduce spending on new plants and equipment by more than 20 percent in 2016. Marc Reisch, *DuPont Cuts 2016 R&D Budget Ahead of Merger with Dow Chemical*, C&EN (Jan. 28, 2016) <http://cen.acs.org/articles/94/i5/DuPont-Cuts-2016-RD-Budget.html>

⁵⁰ Federal Guidelines § 2.1.2. See also NAAG Guidelines, Executive Summary 11; NAAG Guidelines § 5.2.

⁵¹ Christopher Leonard, *Monsanto stomps down budding seed competitors*, USA Today (Dec. 14, 2009) http://usatoday30.usatoday.com/money/industries/food/2009-12-14-monsanto-practices_N.htm.