Senator Grassley's Written Questions, Senate Judiciary Committee Hearing on "Competition and Consolidation in the U.S. Seed and Agrochemical Industry", September 20, 2016

<u>Questions for Mr. Johnson:</u>

1. Are you familiar with S.3323, a bill I introduced to ensure American companies and consumers have a chance to prove up claims they may have against foreign state-owned entities? Do you believe that this bill will help American companies, farmers and consumers be on the same footing as foreign companies controlled by foreign sovereigns?

I have had a chance to review S. 3323, and I thank you for your efforts to introduce this important piece of legislation. I believe this bill will indeed help American companies have level playing field with foreign companies controlled by foreign sovereigns. As I mentioned in my written submission for the record, the commercial activity exemption under the Foreign Sovereign Immunities Act is in need of a 21st century update to reflect the change in business structures of foreign investment in the U.S. and the overall increase of foreign investment in the U.S. This legislation would extend the jurisdiction of FSIA for U.S. courts to state-owned corporate affiliates of foreign-owned companies for their commercial activities. This would ensure that foreign companies engaged in private enterprise have the same legal considerations as domestic companies. This will, in turn, protect farmers and consumers by ensuring there are reasonable avenues of recourse in the judicial system.

2. Larger companies sometimes have trouble innovating due to bureaucracy or market dominance. How do you see these proposed transactions enhancing or hampering the ability to innovate?

The proposed transactions are likely to hamper overall industry-wide innovation. Consolidation will eliminate competitors in research and development in agricultural biotechnology. The resulting increase in consolidation will stymie innovation. Farmers already have concerns about the reduction in innovation due to a lack of competition. In meetings with several farmers across the Midwest, farmers noted the evolving Roundup-resistant weeds require additional chemical applications at greater cost to farmers. The Horizontal Merger Guidelines state that competition "often spurs firms to innovate" and that a merger may diminish innovation competition through curtailment of "innovative efforts below the level that would prevail in the absence of the merger." As we noted in a letter to the Department of Justice regarding the merger of Dow and DuPont, "Maintaining this standalone [innovation] competition is essential for ensuring that incentives remain strong to continue existing and prospective product development programs. Such competition is particularly crucial for innovation in an industry where the probability of commercial success is relatively low."

Questions Of Senator Patrick Leahy (D-Vt.),
Ranking Member, Senate Judiciary Committee
Senate Judiciary Committee Hearing on "Consolidation and Competition in the U.S. Seed and Agrochemical Industry,"
September 20, 2016

Questions for Diana Moss (American Antitrust Institute), Bob Young (American Farm Bureau), and Roger Johnson (National Farmers Union)

1. The merging companies all argue that the proposed mergers would not negatively impact competition because each transaction combines one firm strong in seeds and traits with a firm strong in crop protection products. All of the companies testified that their particular transaction is "pro-competitive" because such consolidation would create efficiencies, allowing the post-merger companies to create more integrated products. This argument is similar to ones we have heard in a number of industries lately, including health insurers and telecommunications providers.

    a. In your view, is focusing primarily on the absence of overlapping product portfolios the correct view of how these mergers might impact competition?

To begin, we would dispute the notion that there is no overlap between these companies. Cotton, widely discussed at the hearing would certainly be impacted. Monsanto and Bayer are major competitors. Monsanto owner of Deltapine and Bayer owner of Stoneville and FiberMax compete for market share. According to the USDA Deltapine brand upland cotton is planted on 32.6 percent of U.S. cotton acreage, 16.22 percent for FiberMax, and 8.8 percent for Stoneville. They also compete on traits such as LibertyLink and Roundup Ready II, which should be heavily scrutinized.

While there are plenty of examples of overlap between Monsanto and Bayer, Dow and DuPont also significantly overlap especially when it comes to corn. While their market share is different, Dow and DuPont each have over 300 varieties of corn for sale. DuPont certainly has a larger portfolio of seeds, but Dow has made significant investments in its portfolio, especially with its Mycogen label.

To the question over how to view these mergers, overlap must be part of the calculus, but certainly not the only consideration. Competition could also be impacted by changes to cross licensing agreements, various inventories that these companies hold, reductions in innovation, as well as the barriers to entry in this market as a result of limited competition.

The way in which companies utilize cross-licensing agreements can be a negative and a positive. Licensing with a competitor to create a platform that can better resist stressors is certainly advantageous for producers. However, cross licensing can also be negative for producers if the companies use the agreement in a way that has a similar effect to the formation of a shared monopoly or cartel as a way to exclude potential competitors. According to interviews on the subject, some small firms have to consider strategic alliances with the mega companies or leave the space altogether. In the end, this harms producers.

Examining strategic alliances is also important for antitrust regulators. As companies have merged and bought up smaller companies they have gained control of more and more germplasm. At the same time, as public research has declined less public germplasm research is available. These are important building blocks for stacked-seed systems. Strategic alliances, closed systems, or joint ventures present another challenge for market entry or the growth of small companies. An aggressive review of such ventures and strategic alliances is warranted.

Lastly, patents should be examined. Both the submission of a new trait for approval and the amount of approvals that is granted in a given year should be reviewed. Approvals are limited, so each approval impacts the market in a significant way. It is also important to review the products yet to be approved. Just because there is not overlap in products already on the market, does not mean that investments and pending products don't overlap.

b. What impact would the creation of more integrated products within one company have on the market for cross-licensing of seeds and traits that currently dominates the seed industry?

NFU believes integration has both positives and negatives. The positive is for the companies, which through a merged company no longer has to rely on other partners for other traits. They could have the ability to develop a completely closed system in house. They might also be able to do it at a lower cost as these companies find even more efficiencies of scale.

For the producer there could be a number of problems. When possible, producers like to have the choice to mix and match products. Perhaps they stay within a single brand, but they want the ability to choose between different aspects of a cropping system. More closed systems by two or three remaining companies would significantly reduce choice. A limited amount of blockbuster systems could also reduce choices.

From a farmer's perspective, some products are significantly better than others. These really are blockbuster products that cost more, yield more, and are overall better products. These systems are not completely closed, if there is a movement towards those models we are concerned that second tier brands could be neglected. Even though they are second-tier brands they remain important to our producers. As an example, if DeKalb releases a blockbuster system that takes significant resources to develop, what happens to the lesser-used brands like Channel? It is conceivable that these products languish as a result of less investments and producers stop using them altogether as effectiveness declines. It reduces choices even further and forces producers into fewer and fewer brands.

Developing closed systems that are completely proprietary and kept from competitors could also change the way in which smaller seed companies operate. As an example, seeds from Steins often have traits from the "Big Six". A closed system could prevent smaller companies from being able to use licensing to create a product that producers want from a smaller company, thereby potentially foreclosing opportunities for small and midsized companies.

2. The focus of most of the genetically engineered (GE) traits used in the market today is to build pesticide resistance into the crops in a way that has resulted in a surge in pesticide, which in turn has led to an increased problem with herbicide-resistant weeds,

so-called “superweeds,” that has been blamed for an even greater surge of pesticide use. Given this fact, what is the potential for these transactions to exacerbate anti-competitive conflicts of interests whereby farmers must buy expensive pesticide-linked seeds from a firm that sells those same pesticides, and has the market power to increase the price of both those seeds and chemicals?

Consolidation will eliminate competitors in research and development in agricultural biotechnology. The resulting increase in consolidation will stymie innovation. Farmers already have concerns about the reduction in innovation due to a lack of competition. In meetings with several farmers across the Midwest, farmers noted the evolving Roundup-resistant weeds require additional chemical applications at greater cost to farmers. The Horizontal Merger Guidelines state that competition “often spurs firms to innovate” and that a merger may diminish innovation competition through curtailment of “innovative efforts below the level that would prevail in the absence of the merger.” As we noted in a letter to the Department of Justice regarding the merger of Dow and DuPont, “Maintaining this standalone [innovation] competition is essential for ensuring that incentives remain strong to continue existing and prospective product development programs. Such competition is particularly crucial for innovation in an industry where the probability of commercial success is relatively low.”

3. I see many similarities and parallels between these proposed mergers and the consolidation and concentrated and coordinated ownership we have had in the dairy sector in recent years. Many blame that consolidation for the unsustainably low prices paid to dairy farmers in this country and in my home state of Vermont. In the case of dairy, it has meant far fewer buyers in the marketplace that has put dairy farmers against each other in a never-ending search for lower milk prices. In considering these proposed transactions and the increased consolidation they will bring to the seed and crop protection markets, what can we do to protect farmers and consumers from the challenges that have plagued the dairy industry?

NFU was founded in 1902. At that time producers had little ability to control input costs or the prices at which they sold their goods. We have over a hundred years of history to draw upon. When producers lack choice and when markets are anticompetitive, producers suffer. As dairy processors get larger and search for more efficiencies, individual dairymen are faced with reduced choices to sell their milk. They can also fall through the cracks as shipping routes get tighter. The processor, sometimes a coop, does not always lookout for the best interest of individual producers.

NFU staff met with a farmer seed dealer back in March in Minnesota. He said “I have to represent myself as a farmer and a seed dealer; I represent the company to the farmers, and the farmer to the company.” But with the mergers he feared that these relationships might change and the farmer would instead become a number to the companies. The farmer’s quote and concern deftly illustrates the need for a better supply chain over a more “efficient” supply chain. Every aspect of the agricultural supply chain is seeking every conceivable efficiency. We need to guard against industry efficiencies coming at the expense of competition, innovation, and choice for our producers.

Mergers of coops, suppliers, tractor dealerships, fertilizer, chemical and seed companies have all continued to move in a way to increase efficiency at the cost of the American farmer. There are fewer jobs with a reduction in the overall number of companies. In order to protect there needs to be competition across input and product markets. There is also a need to provide diversity of buyers for the products that producers sell. Given existing concentration and an inclination for additional concentration, NFU believes that Congress and the Department of Justice should act to prevent these mergers and also should explore existing companies who have undergone previous mergers. Robust competition will protect both producers and consumers.

Question to all witnesses

1. All farmers, whether they use genetically engineered (GE)-traited technologies or not, are still looking for non-GE choices to expand their rotations and to seek higher value markets. Many of you have discussed the impact that the pending seed and chemical company mergers will have on innovation. Some have argued that the mergers will enhance innovation, and others that it will stifle innovation. Those who are concerned about less innovation if the mergers are approved have noted the difficulty in crafting a potential remedy for that concern, as questions about innovation present unique challenges that are far more complex than simply divesting existing businesses or product lines.

    a. What are the potential opportunities and mechanisms for enhancing public plant breeding capacity to address the loss in diversity of seed choices for farmers, and the many needs of farmers that will not be addressed by the private sector, whether or not we continue to see mergers in seed companies?

    b. As you consider the challenges farmers are facing today needing access to seeds that are well adapted to their farming systems, soils, and the changing climate, would you support additional investments in public research on diversification of seed stocks and publically available plant varieties in this country that could lead to greater genetic diversity?

While there are new biotech developments outside of traditional commodities, such as potatoes and apples, generally speaking the vast majority of the big six's investments have gone towards major commodities such as corn, soybeans, and cotton. Higher value crops, which are planted on fewer acres than the major biotech commodities, generate less revenue and as a result have received fewer resources.

NFU believes public research is critical and insufficient. There is a network of land grand universities who do a fantastic job creating advancements in agriculture through their plant breeding research. However these universities need to be granted additional resources to carry out their work. NFU is concerned over a number of aspects of the current research framework the couples public and private money. Public investments in research should be in place for the public good, whether that is for producers or consumers. Public research budgets that are highly reliant on outside funding often presents a conflict of interest that is concerning to our organization. Many times the private money is matched with public money in a way that “directs” public funding toward private benefits.

Cooperative agreements between universities and major companies are not inherently bad. With a shortage of public funding, joint ventures are necessary for universities. But we remain concerned that research budgets highly reliant on companies could be problematic. The goals of the two do not necessarily align as companies have an agenda based on their bottom line, which could negatively impact the research conducted in public. We should not ignore the potential for suppression of speech, setting of public research agendas by companies, deleterious effects on critical thinking, smothering criticism, or using universities’ reputation to alter public opinion for a company’s benefit. Meaningful increases in public research, so that universities can hold more control in these cooperative agreements is an important step congress should take.

Additional public research funding can reduce conflicts of interest. It will also assist producers enhance their operations as they rely on advancements in seed research not traditionally filled by commercial research. These investments could also assist with ensuring seed diversity and environmental enhancements.

Senator Cruz Questions for the Record for
Roger Johnson, President, National Farmers Union
Senate Committee on the Judiciary
Consolidation and Competition in the U.S. Seed and Agrochemical Industry

Questions

1. **Earlier this month, the Agricultural and Food Policy Center (AFPC) at Texas A&M University issued a report, "Effects of Proposed Mergers and Acquisitions Among Biotechnology Firms on Seed Prices." This report concludes that the proposed mergers between Dow and Dupont and Monsanto and Bayer will increase seed prices for corn, soybeans, and cotton. Notably, the report indicates that the price of cotton could increase by almost 20%. Do you have any response to these findings? Will seed prices increase? If not, what did the report get wrong?**

   "The Effect of Proposed Mergers and Acquisitions Among Biotechnology Firms on Seed Prices" report begins to quantify what has been known in the countryside for some time. Prices of seed continue to increase, driven in part by the lack of competition in the agricultural seed sector. After the previous round of mergers in the early and mid-part of the last decade, markets became less contestable; companies exercised more market power; and companies exited the space quicker than they entered it. This resulted in products marked up above marginal costs, which continually increased until the last year or so when seed input costs began to level off for some seeds.

   As I referenced in my prepared statement, crop budgets authored by North Dakota State University (NDSU), show increases for input costs that producers rely on. From 2004 through 2016 seed costs, built into the crop budgets, have doubled or nearly doubled in price. This comes as no surprise. The four largest companies account for more than 50 percent of global market shares. By comparison in 2000 the share was closer to 33 percent. The top four companies sold 90 percent of the cottonseed, 82 percent of the corn seed, and 76 percent of the soybeans during 2014-2015. With such high market share, it is no surprise that producers' costs increase and we expect those costs to continue to climb.

   A number of other reports have been chronicling the concentration in the seed and chemical sectors along with associated cost increases for many years now. One significant and helpful difference is the forward projection contained within the Texas A&M report. Most other studies have been historical.

   Specific to cotton, the market concentration is staggering. A combined Bayer-Monsanto entity would hold an overwhelming share of the seed market through its brands Deltapine, Stoneville, and FiberMax. Should such a merger be permitted, the only significant competitors in the cotton market would be Americot and Dow. According to USDA, Bayer-Monsanto would hold just shy of 60 percent of all upland cotton acres in the U.S. With such control there would be little recourse to rising seed costs because producers' choices would be so limited.

2. **In the last quarter century, the agricultural industry has consolidated dramatically into the "Big Six" companies that now control the market. With these proposed mergers, it looks like we're heading toward a "Big Four." In her written testimony, Dr. Moss states that the Dow/DuPont and Monsanto/Bayer mergers "will likely raise entry barriers for smaller innovators and increase the risk that they are foreclosed from access to technology and other resources needed to compete effectively." Can**

you respond to this? How would these mergers affect the smaller businesses and entrepreneurs in Texas?

I agree with Dr. Moss' assessment that the duopoly of Dow/DuPont and Monsanto/Bayer would likely raise entry barriers for smaller innovators and increase the risk that they are foreclosed from access to technology and other resources in order to compete effectively. Part of the motivation to merge appears to stem from the desire to create integrated platforms of traits, seeds, and chemicals that interoperate. Smaller innovators may face challenges accessing the technology through cross-licensing agreements that are common with the other larger companies.

3. **Several of the people I have spoken with in the farm and agricultural industry believe that effects stemming from these mergers should be reviewed collectively. If you disagree, could you please explain why?**

   I do not disagree. Department of Justice should review the mergers collectively and the combined impacts on competition.

4. **The Wall Street Journal has noted that Federal Reserve polices after the financial crisis inflated asset prices, and more recently, that the end of Fed stimulus has led the dollar to rise sharply, which has given us falling prices in many farm commodities. We have seen this effect very clearly in Texas's energy industry, which has seen prices fall more than in half since 2014, hitting the entire regional economy. Do swings in commodity prices, specifically crop prices, have a negative impact on the agricultural industry as whole?**

   Volatility in commodity prices negatively impacts the agricultural industry and places significant stress on farmers and ranchers as well as on the farm safety net. The current downswing in commodity prices is having rippling effects across the farm and rural economy. The strained price environment has impacted corporate profits, spurring a number of different mergers across the agricultural inputs sector from seeds and chemicals to fertilizers. Low prices have negatively impacted farm profitability and, as a result, some farmers are fighting to stay on the land and continue to farm. Additionally, access to credit has decreased, putting additional strain on farmers and ranchers and their communities.

Questions for Mr. Johnson

1. Can you give more detail as to why recent advancements in technology, and the advancements in yield capability and crop health, have actually been more financially beneficial for manufacturers than producers?

Advancements in seed technologies have resulted in higher yields and healthier crops. Producers have benefited from higher yields as more bushels have been sold off the same acreage. However, yield alone does not determine profitability. Price is one of the most important factors for determining profitability. Another factor determining profitability is input costs. A producer, especially in a difficult price environment like today, has to control costs. Fixed costs are harder to control, as investments in fixed costs are longer term in nature. When pressured in low price environments, producers try to lower variable costs as they struggle to remain profitable. With the current economic climate, some producers are attempting to lower costs so they *lose* less money per acre.

Producers are having a harder time today trying to control variable costs because the choices today are more limited than in the past. As I noted in my written testimony, seed costs, as laid out by North Dakota State University Crop budgets have doubled or nearly doubled from 2004 to 2016. Chemical inputs such as herbicide, fungicide, and insecticide have also increased significantly and well beyond the rate of inflation. The same companies sell both the seed and the chemicals. Producers have fewer low-cost options due to the rolling over of patents after small tweaks are made to a product. Generics are also not generally interchangeable with on-patent products. The technology treadmill that has emerged greatly benefits companies and disadvantages producers who rely on the technology to compete.

Certain chemical products and seeds have doubled in cost, while yields have increased more modestly. The U.S. has 84 million acres of weed resistance. Producers have less choice when it comes to products. That is why NFU believes that advancements in products and increases in price have disproportionally benefited companies over producers.

2. How do the proposed mergers and acquisitions mentioned in our hearing affect that calculus?

The proposed mergers would further benefit companies over producers with little assurance that benefits will flow to producers and significant potential for actual harm. Texas A&M recently reported a number of factors that confirm our fear of harm to producers. This includes recognition of companies engaged in markup beyond marginal costs, expected price increases, and significant growth in market power.

These mergers would allow companies to reduce their fixed costs and further benefit from additional economies of scale. The companies would reduce research and manufacturing costs, but given historical precedent, it is unlikely that producers themselves would enjoy the benefit of lower cost seed. The companies would also benefit from enhanced marketing ability and the synergistic effects, as well as increased intellectual property protections. The larger the company, the more ability it has to simply buy up emerging technologies instead of actually having to compete with said technology.

While lower manufacturing costs and increased efficiencies benefit the companies, producers will likely be faced with higher prices per unit. Texas A&M recently released a report on the impact of all these proposed mergers. While there are limits to these predictions, the report estimated that seed prices could increase between two and twenty percent for corn, soybeans, and cotton.