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Speech by Juan R. Luciano National Grain and Feed Association industry keynote address March 20, 2017, 9 a.m. CDT, Sheraton New Orleans CHECK AGAINST DELIVERY

Thank you for the warm welcome. And thanks, John, for that kind introduction. I'm grateful for the opportunity to share some time with you today discussing two of my favorite subjects: agriculture and the food industry, and ADM.

We at ADM greatly value our partnership with the National Grain and Feed Association, and we've been proud to support and participate in the organization for many years. So it's a pleasure to join you today.

I want to spend a few minutes sharing some thoughts on four global trends shaping the world around us—forces that are driving our long-term business strategies at ADM. I'll talk about what these dynamics may mean for our sector as a whole. And, I'll share some recommendations on how the U.S. grain industry can rise to the challenges before us and continue to lead the world amid changing markets ... demographics ... technologies ... and consumer preferences.

I hope that my reflections and observations will awaken in you the same sense of confidence that drives us at ADM each day. Because the reality is—for all that's changed in the past several decades—one thing has remained constant ... and that's the <u>ingenuity</u> and <u>resourcefulness</u> of U.S. agriculture.

Whatever challenges the future holds, our industry's history shows we are capable of meeting them head-on ... while laying the groundwork for a brighter, more prosperous future.

Before I dive in, I want to take just a moment to briefly introduce ADM for the benefit of those of you who may not be familiar with the full size and scope of our business.

Our company began as a linseed-oil processor in Minneapolis 115 years ago. Today, we are 32,000 men and women worldwide serving customers in 160 countries.

Our global asset base includes 750 crop-procurement and ingredient-manufacturing facilities ... more than three dozen innovation centers ... and a transportation network comprising railcars, barges, trucks, trailers and oceangoing vessels.

With this network, we source crops from farmers around the world ... transport them to our processing facilities ...transform them into thousands of food and feed ingredients, renewable fuels and chemicals ... and deliver them to customers on six continents.

This broad perspective on the global ag value chain helps inform the views I'll share with you today.

I was reflecting recently on the number of twists and turns the world has taken since you all gathered at last year's convention.

From Brexit to a transformational U.S. election, we've seen a great deal of change in a short time. And some of these developments have put people on edge.

If you get your information from the 24-hour cable news networks, you might think the world today is a pretty grim place.

But while the news media is primarily focused on the discourse of the Western world, it's important to remember that nearly 90 percent of the world's population lives in developing countries. These are our customers, our source of demand. And life for them is getting much, much better.

Let me give you some examples to highlight this perspective.

- First, global poverty has fallen faster in the past 20 years than at any time in history.
- In 1993, almost 2 billion people around the world lived on less than \$2 a day. By 2012, that figure had been cut in half. And by some estimates, it fell further by 2015...to about 700 million people.
- During this time, the share of people living in chronic hunger also has been cut nearly in half.
- The global infant mortality rate also fell 50 percent between 1990 and 2015.
- And average incomes in developing countries have almost doubled after controlling for inflation.

All of which is to say that things in general are a whole lot better than we often think they are.

The advances I've just mentioned have improved the lives of <u>billions</u> of people around the world. And that's something we need to bear in mind as we plan for a future in which emerging economies influence the global economy in unprecedented ways.

Speaking of the global economy, the second trend I want to mention is the rise of other countries and regions as economic and agricultural forces rivaling the U.S.

In terms of overall economic might, the bipolar world that defined the post-Cold-War era is yielding gradually to a multipolar world in which three large economies—China, India and the U.S.—share power at a time of slowing overall productivity in much of the world.

Simply put, the U.S. is no longer the world's <u>only</u> economic center of gravity. Nor are we unrivaled when it comes to agriculture.

South America some time ago surpassed North America in oilseeds production. Brazil's second-crop corn has turned the country into our largest export competitor in the global market. The Black Sea region has become a major force in the wheat marketplace thanks to the devaluation of Russia's currency ... and the fact that U.S. acreage has been steadily declining to early 20th-century levels. And China has made its impact on global markets strongly felt by ending its corn-stockpiling program and instead allowing markets to establish prices.

So the takeaway here is that countries in both hemispheres will have to adjust to different roles and relationships, and governments and industry players around the world will need to adapt their trade flows and investments accordingly.

The third major trend reshaping our industry is the major shift we've seen in consumer food preferences and purchasing behaviors.

On one hand, in the developing world, we're seeing the emergence of a global middle class that's driving steady growth in demand for protein of all types.

- Today, meat consumption in China remains robust.
- But it's also worth noting that many of the countries where incomes and population are growing fastest—
 including India, parts of sub-Saharan Africa and majority Muslim nations like Indonesia—will not follow the
 Chinese model of increased meat consumption.
- This helps explain how aquaculture production came to surpass beef production back in 2013, and how the production of pulses such as beans and legumes has increased 40 percent in the past 15 years.

On the other side of the ledger ... in the developed world, the major shift underway is that more and more consumers are now basing their buying decisions not just on the traditional criteria of taste, price and convenience...but also on wellness and nutrition.

- In the next four years, for the first time in history, the number of people 65 years and older will outnumber the population under five, and these aging baby boomers are quite affluent.
- They see food as a way to improve longevity and quality of life ... while the ethnically diverse Millennial generation is incorporating eating habits from many different cultures.
- As a result, both of these broad demographics place a premium on fresh, healthy organic food ... prepared and portable foods ... and foods viewed as a kind of "medicine"—an experience.
- Even more, many experts believe that the combination of new technology and better understanding of the individual's genetic makeup is leading us toward an era of "personalized nutrition."

These shifts are having a dramatic impact on many of ADM's largest customers.

Our food customers, for instance, are facing a significant increase in demand for products that feature plant-based proteins.

And our beverage customers are working to keep up with demand for natural products—natural having replaced organic as the primary driver of purchasing behaviors among beverage consumers.

Just two weeks ago, in fact, it was reported that for the first time ever in 2016, Americans drank more bottled water than soda

Much has been made of the fact that so-called "Big Food" has been struggling to keep up with the hundreds of successful start-ups that have stolen their market share in the past decade.

In 2016, for instance, an estimated 2.2 percent of the top 100 food and beverage companies' sales went instead to smaller processors.

In response, we at ADM have made a number of important changes to our business to help support them.

- We've invested to expand our portfolio of specialty ingredients to meet our customers' demand for ingredients that deliver taste, texture, function and nutrition.
- In the process, we've broadened our customer base and positioned ourselves to serve as the partner of choice for companies that want a "one-stop shop" for their ingredient and innovation needs.

The fourth and final global trend exerting a major impact on our world and our industry is the phenomenal pace at which technology continues to evolve ... and become more affordable.

Providers of on-farm technologies are working to integrate traditional farmer tools with sensors, satellite imagery, biologicals, and so on to efficiently manage each square meter of farmland.

Over time, this data integration will leap beyond the farm gate to the producers and commodity aggregators.

Another area where technology is having a tremendous influence is in the rise of precision farming.

Thanks to rapid innovation and declining costs, growers have gained the ability to apply fertilizer and pesticides sparingly, and only when required ... which of course makes farming more environmentally friendly and sustainable. It seems safe to anticipate that these gains will accelerate as technology grows more sophisticated ... and affordable.

So, to recap: We have a world that's improving for billions of people ... one where a single economic powerhouse is giving way to a multipolar global economy ... amid an environment of shifting consumer preferences ... and rampant, accelerating technological change.

Against that backdrop, the big questions for those of us in this room today are:

- How can U.S. agriculture continue to grow sustainably so we can help feed a global population of 9.6 billion people by 2050?
- How can we address the changing preferences of consumers ranging from Millennials to seniors?
- And, how can we address growing societal demands that the food industry be a provider of nutrition and health, and not just a supplier of consumer goods?

I have some suggestions I'd like to share.

First, I think it's important to leverage research and embrace new technology to continue driving efficiencies and additional productivity in sustainable ways.

This will require support from all participants in the agricultural value chain, including farmers, government agencies, NGOs and the private sector.

- We need to continue expanding research into yields and drought resistance using traditional breeding, genetic modification, big data analytics and other tools.
- We need to continue improving the integrity of our supply chains to address concerns about human rights, food safety and the environment.
 - At ADM, we have adopted a No-Deforestation Policy to help ensure that the palm oil we source is traceable back to the mill ... and that soybeans purchased directly from farmers are responsibly grown at the origin.
 - Today, more than 97 percent of our palm oil and palm-kernel oil supply is fully traceable, and we are building a database of our soy suppliers that we hope will enable farm-level traceability.
 - At the same time, we have committed to achieving 15 percent reductions in energy use, emissions and water use by 2020, and we are on track to either meet or surpass those targets.
 - We also continue to strengthen our food-safety systems to ensure we deliver the safest, most wholesome products possible to our customers.
- Also under the heading of driving efficiency and productivity, we need to invest in our inland waterways, roads, railways, bridges and other infrastructure to ensure they are up to the task of supporting increased export activity.
 - For instance, with 240 locks and dams that date back to the 1930s, we cannot take advantage of our ability to tow big convoys of barges. And this results in greater downtime and inefficiencies.
 - Just two weeks ago, the American Society of Civil Engineers gave American infrastructure as a whole a grade of D-plus.
 - Investing in the health and navigability of our inland waterways is therefore a necessary step to keep
 U.S. exports competitive.
- <u>Ultimately, technology is the foundation of all of this work to improve productivity and efficiency</u>. So we need
 to encourage the <u>continued convergence</u> of technologies—electronics, robotics and biology—into agriculture
 and food processing.

Sensors and big data will be of increasing value here.

- o They will allow feedlot operators to more closely monitor the growth of their animals.
- They will help ensure the safety of old crop supplies by detecting the possibility of contamination ...
 which in turn will prevent costly recalls and human exposure.
- And, they will improve the accuracy of weather forecasting.

Beyond sensors and data, improvements in the cost and efficacy of technology that permits cost-effective DNA sequencing ... coupled with ongoing increases in computational capacity and cloud storage...will drive the

development of better functional ingredients that could target specific health issues, such as triglycerides reduction and blood-sugar levels ... which in turn could help combat heart disease and diabetes.

This would potentially mark the beginning of the era of personalized nutrition I mentioned earlier.

My second recommendation is that we continue working with governments to encourage deregulation of the sector.

The World Bank recently reported that last year, 137 out of 190 countries took measures to reduce regulatory burdens on business. This is an area where the U.S. needs to begin to lead.

A good place to start is with trade.

- As an industry, we must drive home the message that trade in agricultural products is not a zero-sum game.
- Climates, crop seasonality, and the impact of weather patterns make trade essential for feeding the world, for the health of global economy, and for farmers worldwide.
- What's more, we at ADM believe farmers should have the freedom to plant what they want, guided by
 prices rather than government interventions that distort the free market.
- Our industry has run a trade surplus for nearly 50 years. And today, the U.S. exports more than \$130 billion in agricultural products each year. Those exports generate an additional \$170 billion in domestic economic activity and support roughly 1.2 million U.S. jobs.

With 95 percent of consumers living outside the U.S., few issues are as critical for us as healthy, robust support for agricultural trade.

A third and final area we need to address as an industry is the task of continuing to attract more young people to agriculture.

- The USDA has noted that there will soon not be enough qualified graduates to fill the roughly 58,000 job openings available each year in agriculture and related fields.
- Last year, we at ADM worked with USDA to form the Agriculture Diversity and Inclusion Roundtable, a multistakeholder coalition that includes more than 40 other companies, agencies, universities, not-for-profit groups and service organizations.
- The group is working on a number of fronts to help broaden the base of talent entering agriculture-related professions.
- One group obviously is not enough to address such a complex challenge ... but it represents a positive first step.

If all of this sounds like a tall order for our industry, well ... it is.

But if history is any guide, we are extremely well-positioned to address each of the issues I've mentioned.

Led by the United States, the world has been able not only to feed a population that has increased by 5 billion since 1950 ... but also to feed the world a <u>better</u> diet.

And the results have changed the fates and fortunes of untold millions, or perhaps billions of people. Our industry has also been tremendously successful at meeting increasing demand for specialized ingredients and premium products from more developed economies.

That demand is only likely to increase as more research suggests certain food ingredients may alleviate some medical conditions and promote good health.

With the expansion of knowledge that technology is bringing into our industry, we've never been in a better position to provide quality nutrition to the world.

So working together, I believe we can ensure that U.S. agriculture will continue making the transformational, lifealtering gains that have made our world <u>a better place</u>...a <u>more humane place</u> ... a place of <u>hope, promise and</u> <u>shared prosperity</u>.

Thank you very much.

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