

## **U.S. Representation in International Standards Development for Feed Machinery**

### **A. Executive Summary**

1. **Applicant:** American Society of Agricultural and Biological Engineers (ASABE), St. Joseph, MI  
www.asabe.org
2. **Industry(s):** Feed Machinery, Agricultural Equipment, Industrial Automation, Machinery Technologies
3. **Foreign Markets Targeted:** Guatemala, Korea, Mexico, Peru, South Africa
4. **Market Size:** \$62.65 million (2014)
5. **U.S. Market Share:** \$18.95 million (2014)=30.2%
6. **Project Period:** January 1, 2017 - December 31, 2021
7. **Project Exports:** The long-term goal of the project is to ensure appropriate U.S. engagement in newly established International Standards Organization (ISO) Technical Committee (TC) 293 for Feed Machinery so that the content of future published international standards are not barriers to trade. Exports to five key markets will be trended during the course of the project as defined in section 13D, but the impact of ISO standards to the feed machinery industry is in no way limited to just these five countries. The steps proposed in this project are designed to engage and educate U.S. industry in the ISO process. Performance criteria for this engagement is included as well.
8. **Post-project Exports:** The benefits of this project will be realized for many years after the conclusion of the Market Development Cooperator Program. The project is designed so that long-term U.S. engagement will be self-supporting. The development process for ISO standards can take up to four years, but once published, ISO standards can be reaffirmed by the international community every five years for decades to come. Properly engaging the U.S. at the early stages of the process increases company awareness and puts U.S. manufacturers in a proactive, rather than a reactive, mode.
9. **Federal Share:** \$260,112
10. **Industry Match:** \$744,035
11. **Project Description:** ASABE will provide education, outreach, training, preparation, coordination, and travel support for U.S. feed machinery industry representatives engaged in international standards development in order to provide a strong U.S. voice in the ISO standards development of feed machinery to protect and expand exports. Without proper U.S. engagement in the process, U.S. manufacturers would be subjected to requirements without representation allowed by the ISO process that undoubtedly will be detrimental to competitiveness. Activities include: 1) training on ISO procedures; 2) industry outreach at industry Expos/Conventions; 3) global support outreach and education; 4) industry participation in TAG meetings, TC working groups, and TC meetings; 5) hosting domestic TC meeting; 6) coordinating efforts with International Trade Administration (ITA); and 7) providing industry educational materials.

## 12. ITA and other federal cooperators:

<b>Padraic Sweeney</b> Supervisor (Acting), Machinery Team Office of Transportation and Machinery DOC/ITA Washington, D.C. 202-482-5024; Padraic.Sweeney@trade.gov	<b>Renee Hancher</b> Lead– Standards Policy and Negotiations Office of Standards and Investment Policy DOC/ITA Washington, D.C. 202-482-3493; Renee.Hancher@trade.gov
<b>Kit Rudd</b> Sr. International Trade Specialist DOC/ITA; Washington, D.C. 202-482-1385; Kit.rudd@trade.gov	<b>Eileen Hill</b> Team Leader for Standards Office of Standards and Investment Policy DOC/ITA; Washington, D.C. 202-482-5276; Eileen.Hill@trade.gov
<b>Dennis A. Simmons</b> Commercial Officer/Team Leader Automotive, Healthcare, and Agri-Business DOC – U.S. Commercial Service U.S. Embassy-Beijing, China +86 10 8531 3445; Dennis.Simmons@trade.gov	<b>W. Eric Johnson</b> Senior International Trade Specialist U.S. Export Assistance Center– Atlanta U.S. Commercial Service 404-815-1750; Eric.Johnson@trade.gov
<b>Jessica Tan</b> Trade Policy Specialist DOC- U.S. Commercial Service U.S. Embassy- Beijing, China +86-10-8531-4804; Feng.Tan@trade.gov	<b>Kendra Kuo</b> Director U.S. Commercial Service – Grand Rapids Grand Rapids, MI 49504 616-458-3564; Kendra.duo@trade.gov

## 13. Partners:

- The American Feed Industry Association (AFIA) and AFIA’s Equipment Manufacturers Committee, Arlington, VA; [www.afia.org](http://www.afia.org)
- U.S. ISO/TC 293 Technical Advisory Group (TAG), which is made up of University technical expertise, such as those from Iowa State University, Kansas State University, Oklahoma State University. A researcher at the Idaho National laboratory is also a TAG member, as well as several technical expertise representatives from the U.S. feed machinery manufacturing industry.

## B. Background

### *Summary*

The U.S. feed machinery industry has developed and entered the global market with a reputation for quality and reliability. As global markets develop and the demand for meat, milk, and egg production increases, the demand for quality feed machinery equipment will also increase. As such, the opportunities for the U.S. feed machinery industry are going to expand beyond the U.S.’s borders and into global markets.

In general, U.S. industry relies on the development of voluntary standards. This system has served the U.S. economy well by creating U.S. market-driven standards. However, this domestic strength makes U.S. companies less competitive in the global market where demands and standards can be very different. The International Standards Organization (ISO) has developed a Technical Committee (TC) for the establishment of international standards for feed machinery. This is of concern to the U.S. feed machinery industry for several reasons:

- 1) ISO standards are often put into national regulations which could impede the U.S. feed machinery industry’s ability to export if those standards are not reflective of U.S. industry’s interests,
- 2) the ISO standards development for feed machinery is being led by Chinese interests and industry standards, which differ greatly from those of the U.S.,
- 3) the U.S. feed machinery industry does not have the same level of financial support other countries do in the ISO standards development process, and

- 4) the U.S. feed machinery industry is not familiar with the ISO standards development process.

There is a need for active participation by the U.S. feed machinery industry in order to safeguard against international standards that could restrict U.S. access to the global market. Major hindrances to active industry participation are the lack of funding, knowledge, and leadership. ASABE is requesting funding to aid in U.S. feed machinery industry representation in the ISO standards development process for feed machinery to ensure those standards are reflective of U.S. industry interests and do not end up restricting trade.

### ***Establishment of ISO Standards for Feed Machinery***

In April 2014, the Standardization Administration of the People's Republic of China (SAC) submitted proposal TS/P244 to ISO to establish the Feed Machinery Technical Committee for an international standardization for feed machinery. The main support for this proposal has come from the Chinese feed machinery manufacturer [XXXX]. This was approved by the ISO Technical Management Board (TMB) as the 293rd Technical Committee (i.e. ISO/TC 293). U.S. feed machinery manufacturers were not expecting or prepared to participate in the development of ISO standards, but they have been working diligently to establish a functional U.S. Technical Advisory Group (TAG) to protect national interests in an area that the industry did not seek out, fully understand, or desire. ISO/TC 293 is one of a number of new TCs strategically initiated by China.

It is important to note that the U.S. voted against the establishment of a TC to develop international standards for feed machinery out of concern that 1) there has not been an inherent need for international standards for feed machinery, and 2) without appropriate engagement from various parties globally and with the initiative being led by China (SAC) at the behest of [XXXX], there is a serious concern that any published ISO standards for feed machinery could be detrimental to the U.S. feed machinery manufacturing industry's interests and ability to export in the future. According to the Chinese Feed Industry Association, [XXXX] is China's top exporter of feed milling equipment, representing more than 50% of China's exports in 2014. The interests of [XXXX] and SAC are starkly different from those of the U.S. It is believed that the main objective for the development of ISO standards for feed machinery is for the Chinese feed machinery manufacturers, namely [XXXX], to push for the ISO standards to be reflective of or equivalent to those of China's feed machinery manufacturing standards, rather than that of best global practices, and to use it as a global "marketing" tool to demonstrate their product is of superior quality.

[XXXX] from [XXXX] is the international secretariat for ISO/TC 293. In this role, she is the acting chairperson of ISO/TC 293. ISO/TC 293 has 12 "Participating" countries and 14 "Observing" countries. Of the 12 participating countries, several international delegates at the first meeting of TC 293 were self-identified as representatives from [XXXX] offices and production facilities outside of China acting as delegates from other participating countries. This in itself gives China ([XXXX]) an advantage in the standards development process. Each "Participating" country must have a TAG whose primary purpose is to develop and share their respective industry's positions on activities and ballots of the ISO TC. The U.S. TAG communicates the U.S. industry's position through the American National Standard Institute (ANSI). ANSI has accredited the ASABE to administer the U.S. ISO/TC293 TAG. Gary Huddleston from the American Feed Industry Association (AFIA) has been appointed chair of the U.S. TAG.

The inaugural meeting of the TC was held in China in May 2015. The U.S. was only able to get two delegates to this meeting and they were not as well prepared as they could have been since little notice was given. As a result of this meeting, a business plan was approved defining the scope of the TC and three ad-hoc groups were formed to evaluate priority areas: terminology, safety, and hygiene. These ad-hoc groups have been working since formed and are focused on developing an inventory of existing standards and the need for potential proposals to develop new international standards. The purpose of ad-hoc groups is to study a precisely defined problem or issue and report back to the parent committee before the next official meeting. More U.S. technical experts are needed to participate in all phases of the work to counter-balance the aggressive, well-planned, and strategic approach of the Chinese who have initiated this TC. Emphasis should

be placed on ensuring U.S. technical experts are well-prepared and informed of the procedures and intricacies of the ISO process. It is vital that the U.S. technical experts have the support of their organizations for the time commitment this work will require.

As more is learned by the U.S. feed machinery industry about ISO and the effort required to properly engage in the process, it has become even more evident the U.S. is not adequately prepared to participate in this activity, especially during the initial few years when the overall scope of work and initial standards are being developed. If the U.S. is not actively participating in the decision process at international meetings, the resultant ISO standards will be based on the input of competitors. ISO standards for feed machinery that are based on Chinese standards could be detrimental to the U.S.'s ability to export and compete in the international market.

Therefore, we are seeking funding to assist the U.S. feed machinery industry in being proactively and properly represented in ISO/TC 293. The requested funding would:

- support the U.S. feed machinery manufacturers' efforts in participating in the U.S. TAG and for knowledgeable U.S. delegates to attend international meetings.
- partially subsidize the expense of travel to international meetings (annual plenary and working groups developing standards) over a 5-year period for ISO/TC 293 delegates to represent the U.S.'s interests.
- partially subsidize the expense of travel and materials needed to provide a presence at industry trade shows to build awareness of U.S. interests in standards development and maintain or expand U.S. exports of feed machinery.
- support outreach to and efforts to align positioning with our foreign counterparts in western Europe at EuroTier, to ensure they are aware of the risks and the need for their participation in the process.
- allow ASABE, in partnership with the various offices and resources of ITA, to establish a strong enough base to enable the U.S. to host an annual plenary meeting and requested working group meetings for standards development. This would enable a greater number of U.S. manufacturers and stakeholders to be present and engaged in the process.

The **GOAL** of this project is to ensure U.S. industry is aware of the impact of the development of ISO standards for feed machinery and is adequately represented in the work activities of ISO/TC 293, and to develop a U.S. ISO/TC 293 TAG that is industry self-supporting.

### ***U.S Feed Machinery Industry Background***

The U.S. feed machinery industry plays a vital role in the success, vitality, and efficiency of the U.S. feed and animal production industry. The U.S. feed machinery industry makes a major contribution to food and feed safety and plays a critical role in supporting the production of healthy, wholesome meat, milk, fish, and eggs. The U.S. has over 6,000 feed mills producing more than 173 million tons of feed, all of which are reliant on quality feed machinery and equipment.

A significant number of U.S. feed machinery manufacturers are small enterprises, often with less than 100 employees. In fact, in a survey of a subset of the U.S. ISO/TC 293 TAG the majority identified their companies as small and medium-sized enterprises (SMEs). Additionally, the majority of the feed equipment manufacturers that make up the AFIA Equipment Manufacturer Committee are characterized as SMEs. Many of these U.S. feed machinery manufacturers are also located in rural areas, providing jobs and revenue to their communities. A loss in exports due to the establishment of international standards for feed machinery that are vastly different than current U.S. voluntary standards would have a significant impact. It could mean a loss of jobs and an even greater effect on these rural economies.

### ***Growing Populations and Demand for Meat, Milk, and Eggs***

The United Nations is projecting the global population to exceed 9 billion by 2050. With this growth in population will come an increase in the middle-class and therefore an increase in demand for meat, milk, and eggs. Developing countries investing domestically in animal production will be seeking methods to enhance feed production to meet their animal production needs. In doing so, they will likely be looking internationally for existing standards to determine their equipment needs.

ISO has even recognized the importance of increased participation of developing countries in international standardization. ISO has implemented **Action Plan 2016-2020** outlining ISO's commitment in this area. ISO's Action Plan stresses the importance of supporting the development and/or strengthening of the national quality infrastructure of developing countries, with a specific focus on the standardization pillar.

With the growing importance and recognition of international standards by developed countries and even developing countries alike, it is imperative that the U.S. feed machinery industry participate in the standards development process to ensure a positive and scientifically-based outcome. If international standards are developed for feed machinery, for the U.S. to be competitive, those international standards need to be reflective of existing and widely accepted U.S. industry standards. Otherwise, the U.S. will be

severely affected and not only risk losing existing markets, but will also lose out on opportunities in new markets such as those developing their feed manufacturing industry.

*"Participation of developing countries in international standardization is also essential to ensure the global relevance of ISO standards and contribute to the access of developing countries to world markets, technical progress and sustainable development."*

***-ISO Action Plan for developing countries 2016-2020***

### ***Global Feed Machinery Trade***

Global trade in feed machinery has increased over 73% between 2009 and 2014. Total global exports of feed milling equipment (HS 843610) were \$878 million in 2014. Germany and China have been trading the title of largest exporter, with Germany having over \$116 million in exports in 2014, while China being the largest exporter in 2010 and 2011. This is phenomenal growth from 2009, when China was only the eighth largest exporter.

The U.S., meanwhile, has dropped from the third largest exporter in 2009 (\$55 million) to the fifth largest exporter in 2014 (\$84 million). Global data has not been published for 2015; however, final 2015 export numbers for the U.S. have been released and show U.S. exported \$88 million of feed milling equipment. While this is still a growth in total exports, it is not in scale with the growth of the market as a whole. The U.S. is losing ground against countries such as China.

### ***U.S. Export Market***

The export market is dynamic, making U.S. exporters vulnerable to fluctuating prices for the agricultural commodities that their customers grow and sell, as well as to other economic variables, such as the cost of fuel and other inputs, exchange rates, the availability of credit, etc.<sup>1</sup> For example, between 2014 and 2015, the U.S. Dollar continued to strengthen and appreciated against foreign currencies. An appreciating U.S. Dollar, while making imported goods cheaper, means American-made goods become more expensive overseas. As such, some of the lost exports in 2015 can be attributed to the strong U.S. Dollar. For example, the U.S. Dollar has appreciated against the Mexican Peso by 12.7%. Mexico moved from the U.S.'s 2<sup>nd</sup> largest export market in 2014 (\$7.8 million) to its 8<sup>th</sup> in 2015 (\$3.6 million) (see Table 1). The U.S. is likely to continue to experience these fluctuations if the U.S. Dollar continues to strengthen and as global competition becomes more aggressive.

Country	2014		2015		2014 to 2015 USD Appreciation
	Rank	Value	Rank	Value	
Mexico	2 <sup>nd</sup>	\$7.8 million	7 <sup>th</sup>	\$3.6 million	12.7%

*Table 1: U.S. Export Markets, Sources- UN Comtrade and International Financial Statistics of the IMF*

### **Chinese Competition**

Currency fluctuations do not always tell the full story of what is happening in the export market. As previously stated, many factors affect exports, including, but not limited to, currency fluctuations. Competition is another real and important concern when participating in the global market. China's growth in exports of feed milling equipment has been and continues to be threatening the U.S.'s global market share (see Table 2). The U.S.'s global market share of feed milling equipment exports has decreased from 10.8% in 2009 to 9.6% in 2014, whereas China's market share has grown from 5.9% in 2009 to 11.1% in 2014. China has been experiencing a compound annual growth rate (CAGR) of 26.9%, whereas the U.S. has been experiencing a CAGR of 8.8%.

Country	2009		2014		2009-2014 CAGR	2014 Global Market Share
	Value	Rank	Value	Rank		
China	\$30 million	8 <sup>th</sup>	\$98 million	2 <sup>nd</sup>	26.9%	11.1%
U.S.	\$55 million	3 <sup>rd</sup>	\$84 million	5 <sup>th</sup>	8.8%	9.6%

*Table 2: Feed Milling Equipment Exports, Source- UN Comtrade*

Another contributing factor is the domestic industrial policy of the Chinese. In the 2012 Chinese Ministry of Industry and Information Technology (MIIT) publication *Development Planning of High-end Equipment Manufacturing Industry during [the] "12<sup>th</sup> Five-Year" Period*, "High-End Equipment" manufacturing industries were identified as Strategic Emerging Industries (SEI) priorities. Agriculture equipment, and therefore feed milling equipment, has been identified as "High-End Equipment". This means that China sees agriculture equipment as a priority sector for development and enhancement. Even U.S. exports to China have decreased 67% since 2009—from \$4 million in 2009 to \$1.3 million in 2015—further demonstrating China's increased competence in the manufacturing of feed milling equipment. This, compounded by the Chinese feed machinery industry proposing an ISO standard for feed machinery, leaves the U.S. industry concerned about how the U.S. will continue to compete in exporting feed machinery.

### **Target Markets**

ASABE has chosen to target three "long-term opportunity" markets (Guatemala, Peru and South Africa) and two "strategic markets" (The Republic of Korea and Mexico). These two terms are used in the 2015 ITA Agricultural Equipment Top Markets Report to group markets for U.S. agricultural equipment, and will therefore be used for the purpose of this submission.

#### **Long-Term Opportunity Markets: Guatemala, Peru and South Africa**

The U.S. has free trade agreements (FTAs) with both Guatemala and Peru. Guatemala is part of the Dominican Republic-Central America FTA (CAFTA-DR)—the first free trade agreement between the U.S. and a group of smaller developing economies Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua, as well as the Dominican Republic. CAFTA-DR went into force for Guatemala in 2006. U.S. exports of feed milling equipment to Guatemala have gone from \$31,000 in 2006 to \$664,000 in 2014. Exports have fluctuated significantly over the years, making Guatemala an unreliable export market for the moment. However, the CAGR of U.S. exports to Guatemala between 2009 and 2014 was 150% (Table 3). USAID notes that Guatemala has potential for expanding its agricultural production. Food security is a serious concern and one of the main reasons for high levels of chronic malnutrition. With the increased focus on food security, a triple-digit CAGR, and representing only 2.3% of U.S. total exports, Guatemala is poised to be a long-term opportunity market. Guatemala is also a market that China has not expanded to yet. It is important that when Guatemala is ready to strategically expand and increase its imports of feed milling

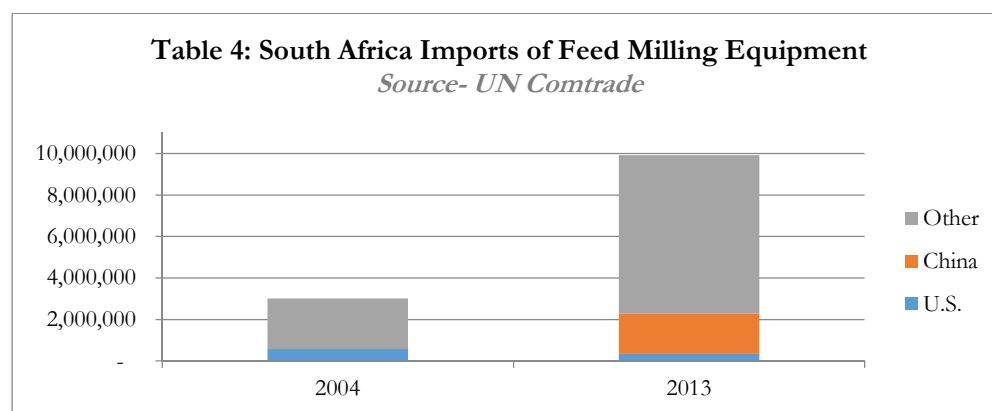
machinery, and look to international standards, that those standards allow the U.S. to compete for the Guatemalan market.

In 2009, the U.S.-Peru Free Trade Agreement (PTPA) entered into force. U.S. exports have as a result grown to \$1.1 million in 2014 from \$588,000 in 2009—a CAGR of 13% (see Table 3). However, simultaneously, China has taken a foothold of the Peruvian market and is now the largest exporter to Peru, growing exports from almost non-existent in 2009 to \$3.7 million in 2014. A Chinese-based international standard for feed machinery could mean a total loss of U.S. market access to the Chinese in Peru. Peru's total imports have grown at a CAGR of 23% between 2009 and 2014. According to the country's Ministry of Agriculture and Irrigation (MINAGRI), major livestock and poultry production in Peru went up 5.3% in 2015. With the growth in feed machinery exports to Peru and the continued growth of Peru's livestock and poultry sectors, while only representing 1.8% of U.S. total exports, Peru is positioned to be a long-term opportunity market. In order for the U.S. to not only continue to export to Peru, but also to grow exports to Peru, any developed international standards for feed machinery must reflect existing U.S. industry's interests and not be based on Chinese industry standards.

	Imports from U.S.			Imports from China			Total Global Imports		
	2009	2014	CAGR	2009	2014	CAGR	2009	2014	CAGR
<b>Peru</b>	588,318	1,097,120	13%	89	3,698,423	489%	2,740,634	7,677,651	23%
<b>Guatemala</b>	6,838	663,554	150%	-	-	0%	1,272,532	1,574,739	4%
<b>South Africa</b>	1,167,640	1,093,038	-1%	31,349	1,641,277	93%	7,480,172	11,154,655	8%

*Table 3: Source- UN Comtrade*

U.S. exports to South Africa have fluctuated, peaking in 2012 at \$3.4 million and stabilizing back down at \$1.1 million in 2014. South Africa's feed industry is quite active and has been developing over the years, as noted by the jump in overall imports of feed machinery (see Table 4). Total feed machinery imports have grown at a CAGR of 8% between 2009 and 2014. During this same time period, China has moved from the 14<sup>th</sup> largest exporter with \$31,000 in 2009 to the 3<sup>rd</sup> largest exporter with \$1.6 million in 2014. South Africa is also very influential in the region and in the continent. Should South Africa adopt the use of international standards for feed machinery that are based on Chinese standards, this is likely to have a domino effect in the region. There remains great opportunities for U.S. export growth to South Africa, however, this potential will be threatened if international standards are developed that are based on Chinese standards.



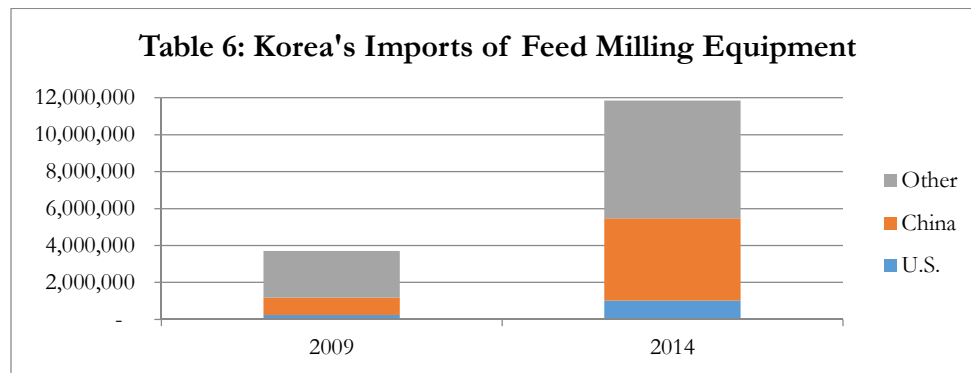
### Strategic Markets: The Republic of Korea and Mexico

The Republic of Korea and Mexico are the U.S.'s 2<sup>nd</sup> and 7<sup>th</sup> export markets for feed machinery respectively. Both markets have been developing and their overall imports of feed machinery have reflected this. U.S. export growth potential to both of these markets will be threatened if international standards are developed that are based on existing Chinese standards. The U.S. has FTAs with both The Republic of Korea and Mexico. The U.S.-Korea Free Trade Agreement (KORUS FTA) went into force in 2012. Since the FTA went into force, U.S. exports of feed milling equipment to the Republic of Korea have climbed—from \$1.2 million to \$6.8 million in 2015. The CAGR for U.S. exports to Korea from 2009 to 2015 is at a whopping 74%. Korea's total imports of feed milling equipment have gone from \$3.7 million in 2009 to \$11.8 million in 2014—a 26% CAGR (see Table 5). U.S. exports are expected to continue to expand given the tariff advantage.

	Imports from U.S.			Imports from China			Total Global Imports		
	2009	2014	CAGR	2009	2014	CAGR	2009	2014	CAGR
<b>Korea</b>	242,442	1,027,949	33%	942,411	4,450,474	30%	3,708,889	11,846,796	26%
<b>Mexico</b>	3,820,000	6,473,091	11%	-	1,137,493	0%	6,235,000	16,239,924	21%

*Table 5: Source- UN Comtrade*

Korea is also a participating country in ISO/TC 293. This signifies their interest in international standards as a whole, but more specifically for feed machinery. Should an international standard be finalized that is not supportive of U.S. industry's position and standards, exports to Korea could be significantly threatened. Given Korea's interest in international standards, Korean buyers are likely to look to a feed machinery ISO standard when making future purchasing decisions. Korea is a strategic market for the U.S. feed milling equipment industry as the U.S.'s second largest export market in 2015 and with the momentum from the KORUS FTA. However, while U.S. exports to Korea are strong and growing, Chinese exports are growing even faster (see Table 6).



The North American Free Trade Agreement (NAFTA) between the U.S., Canada, and Mexico went into force in 1994. Since 1994, Mexico's total imports of feed machinery have grown from \$6.2 million to \$16.2 million in 2014. While total U.S. exports to Mexico have grown as well, the U.S. has lost market share to competitors such as China. China exported \$1.1 million in 2014, representing 7% of Mexico's total imports. The CAGR of China's exports to Mexico between 2010 and 2014 is 107%.



## C. Project Description

### *Host ISO Procedural Training*

- A large number of the U.S. TAG members are new to the ISO world and lack an understanding of the ISO procedural practices. A greater understanding of ISO procedures and the role of the TAG in the ISO international standard development process will allow them to be more efficient and effective in representing the U.S. industry in the ISO/TC 293 standard development process.
- ASABE will host a one-day hands-on training led by ANSI/ISO representatives to 1) explain the ISO international standard development process and 2) provide training on TAG committee member responsibilities and working group participation and practices.

### *Industry and Collaborator Education on ISO/TC 293*

- **Targeted outreach to U.S. feed machinery manufacturers:** Increased awareness and participation of the U.S. feed machinery manufacturing industry is key to successful participation and engagement in the ISO process.
  - ASABE will educate and inform the U.S. feed machinery manufactures of and encourage participation in the ISO/TC 293 activities through targeted outreach, educational sessions, and/or exhibits at the 2017 International Production and Processing Expo (IPPE), the 2017 Grain Elevator and Processing Society (GEAPS) Exchange and the 2018 EuroTier in Hannover, Germany.
  - Prior to travel to EuroTier, ASABE will coordinate a pre-briefing with ITA staff. While in Germany attending EuroTier, ASABE will meet with ITA staff in country.
- **Targeted outreach to international feed machinery manufacturers:** International networking and cooperation to raise awareness of ISO/TC 293 is imperative to develop a strong North/South American and European participation in the development of Feed Machinery standards to maintain quality and balance global interests.
  - ASABE will educate and inform international feed machinery manufacturers of ISO/TC 293 activities through targeted outreach at the 2018 EuroTier in Hannover, Germany as well as through direct outreach and calls.
- **Education materials:** A website and handouts containing relevant information on the ISO/TC 293 standards development process for feed machinery will help ASABE educate U.S. industry, foreign counterparts, and other cooperators on the importance of this issue.
  - ASABE will develop a website detailing the U.S. involvement in and basis for participation in ISO/TC 293. The website would target both U.S. manufacturers as well as major South American and European manufacturers in order to build a solid technical committee that balances global interests
  - ASABE will develop and provide translation of a handout encouraging ISO/TC 293 participation.

### *ISO/TC 293 Technical Expertise and Engagement*

- **U.S. TAG Engagement**
  - ASABE and U.S. feed machinery manufacturing industry representatives will participate in regular TAG calls, providing expertise and input into the ISO/TC 293 development process. With members of the U.S. TAG scattered throughout the country, standard practice is several conference calls during the year to discuss development of standards, technical details, and to solidify the U.S. position to communicate to ANSI. Each participating country gets 1 vote. The U.S. TAG is responsible for determining the U.S. position. As standards come into development for TC 293, communications will increase.

- U.S. feed machinery manufacturing industry representatives and experts will engage and participate in the appropriate working groups as they are established, providing input and expertise. They will work to ensure outcomes reflect and take into consideration the U.S. industry's position as well as to ensure the process aligns with ISO procedures.
- Annual face-to-face TAG meetings: A face-to-face meeting is scheduled for the U.S. TAG at approximately six month intervals to discuss ongoing business, build relationships, and participate in training and educational opportunities regarding the industry developments. Funding would cover a portion of travel, lodging, and meeting space requirements to host the meetings.
- **U.S. Industry Representation at ISO/TC 293 meetings**
  - U.S. industry representatives will travel to and participate in ISO/TC 293 meetings. Meetings are expected to be held in China annually.
  - ANSI/ASABE will host an ISO/TC 293 meeting one year in the U.S. to allow greater domestic participation and engagement in the process. This would include travel and participation of U.S. industry representatives, meeting space and audio/visual needs, meal costs, hosting a tour, etc.
  - Prior to the annual meetings, ASABE will coordinate a pre-briefing opportunity for U.S. travelers with ITA.
  - While in China attending the ISO/TC 293 annual meeting, ASABE will meet with ITA staff in country.
  - When hosting the ISO/TC 293 meeting in the U.S., ASABE will meet with and include the local ITA cooperators/staff in the region in the meetings.
- **ASABE Coordination with DOC/ITA**
  - ASABE will regularly communicate with ITA and other federal cooperators through regular communication and calls.
  - ASABE will also meet face-to-face annually, either in DC or in Michigan, with ITA cooperators.

## Project Timeline

Year 1: 2017	Year 2: 2018
<ul style="list-style-type: none"> <li>● ANSI ISO training</li> <li>● Website development</li> <li>● Brochure development</li> <li>● Discussions/Coordination with other industry and international collaborators</li> <li>● Attend IPPE and meet with local ITA cooperators/staff</li> <li>● Regular calls with ITA staff</li> <li>● Attend GEAPS</li> <li>● Regular TAG Calls</li> <li>● ISO/TC 293 Working Group Calls as needed</li> <li>● Host 2 TAG meetings in U.S.</li> <li>● Annual meeting in Michigan with local and DC-based ITA cooperators/staff</li> <li>● ITA briefing with participants before ISO/TC 293 trip to China</li> <li>● ISO/TC 293 meeting in China</li> <li>● Meet with ITA cooperators/staff in country (China)</li> </ul>	<ul style="list-style-type: none"> <li>● Discussions/Coordination with other industry and international collaborators</li> <li>● Regular TAG Calls</li> <li>● ISO/TC 293 Working Group Calls as needed</li> <li>● ITA briefing with participants before EuroTier trip</li> <li>● Attend EuroTier</li> <li>● Meet with ITA cooperators/staff in country (Germany)</li> <li>● Host TAG meeting in U.S.</li> <li>● Regular calls with ITA cooperators/staff</li> <li>● Annual meeting in DC with ITA cooperators/staff</li> <li>● ITA briefing with participants before ISO/TC 293 trip to China</li> <li>● ISO/TC 293 meeting in China</li> <li>● Meet with ITA cooperators/staff in country (China)</li> </ul>

<b>Year 3: 2019</b> <ul style="list-style-type: none"> <li>• Discussions/Coordination with other industry and international collaborators</li> <li>• Regular TAG Calls</li> <li>• ISO/TC 293 Working Group Calls as needed</li> <li>• Host TAG meeting in U.S.</li> <li>• Annual meeting in Michigan with local and DC-based ITA cooperators/staff</li> <li>• Regular calls with ITA cooperators/staff</li> <li>• ITA briefing with participants before ISO/TC 293 trip to China</li> <li>• ISO/TC 293 meeting in China</li> <li>• Meet with ITA cooperators/staff in country (China)</li> </ul>	<b>Year 4: 2020</b> <ul style="list-style-type: none"> <li>• Discussions/Coordination with other industry and international collaborators</li> <li>• Regular TAG Calls</li> <li>• ISO/TC 293 Working Group Calls as needed</li> <li>• Host TAG meeting in U.S.</li> <li>• Annual meeting in DC with ITA cooperators/staff</li> <li>• Host ISO/TC 293 meeting in U.S.</li> <li>• Meet with local ITA cooperators/staff in U.S. region of ISO/TC 293 meeting</li> </ul>
<b>Year 5: 2021</b> <ul style="list-style-type: none"> <li>• Discussions/Coordination with other industry and international collaborators</li> <li>• Regular TAG Calls</li> <li>• ISO/TC 293 Working Group Calls as needed</li> <li>• Host TAG meeting in U.S.</li> <li>• Annual meeting in Michigan with local and DC-based ITA cooperators/staff</li> <li>▪ ITA briefing with participants before ISO/TC 293 trip to China</li> <li>▪ ISO/TC 293 meeting in China</li> <li>▪ Meet with ITA cooperators/staff in country (China)</li> </ul>	<b>Post MDCP Award</b> <ul style="list-style-type: none"> <li>• The U.S. ISO/TC 293 TAG that is industry self-supporting.</li> <li>• The development of new standards for feed machinery that will not disrupt exports and allows for enhanced export market opportunities.</li> <li>• An increase in U.S. feed machinery exports</li> </ul>

#### D. Performance Measurement

The proposed MDCP project involves the development of international standards. The development of any one standard can take up to 48 months. The new work item proposals being discussed by this new technical committee are currently outlining over 20 standards projects for consideration. Once the standards are approved and are published by ISO, countries including the U.S. will be able to use them in the marketing, design and production of products. As a result of the long-term involvement needed in the various aspect of development, measurable outcomes must be adjusted accordingly. The proposed measurements of success during the five year project term are:

- 1) Increased long-term exports of U.S. manufactured feed machinery. Five current and emerging markets have been identified for monitoring. Other markets may be added as international interest in feed machinery increases.
- 2) U.S. Representation
  - The following categories of participation regarding participation in the U.S. TAG and the ISO process will be monitored and reported.
    - U.S. TAG participation:
      - Manufacturer
      - Feed machinery user
      - Other – academic, research, consultant, government, organizations

- U.S. international participation
    - Ad Hoc and Working Group U.S. experts
    - International meeting attendance
- 3) International Representation
  - The number of countries participating in the ISO processing as observing (i.e. voting) members will be monitored and reported.
    - Note: As of March 7, 2016, there were 12 participating countries with 14 more observing the work.
- 4) Post MDCP Award
  - It is anticipated that the development of new standards will lead to an international standards development activity that is industry self-supporting.

## **E. Partnership**

This project is of great interest to the U.S. feed machinery interest for its global competitive position and is strongly supported by ITA partnerships. During the initial stages of U.S. involvement in ISO/TC 293, as well as throughout the development of this grant proposal, ASABE and AFIA have interacted with various staff at the U.S. Department of Commerce. Once awarded, plans include continued interaction to utilize the knowledge of ITA staff to better understand the effects of trade policy on U.S. exports, specifically feed machinery, in the global markets. While the list is expected to grow over the life of the project, below are contacts made to date. Engagement and coordination with these ITA contacts are to continue throughout the duration of the project.

1. For details regarding international trade in feed machinery, Padraic Sweeney and Kit Rudd, DOC/ITA - Washington.
2. For general discussions on interacting with China-led ISO secretariats, Renee Hancher and Eileen Hill, DOC/ITA - Washington.
3. For information regarding Chinese specific governmental and company trends, and assistance when bringing U.S. delegations to ISO meetings held in China, Dennis Simmons and Jessica Tan, DOC - Beijing. It is envisioned that they would help prepare U.S. delegates to better understand the cultural differences and nuances needed for clear communications.
4. For future preparation and training of U.S. delegates attending international meetings of ISO/TC 293, Kendra Kuo, U.S. Commercial Service - Grand Rapids.
5. For outreach, educational sessions, and networking at future IPPE events, International Production & Processing Expo, Eric Johnson, U.S. Export Assistance Center - Atlanta.

## **6. Credentials**

### ASABE

The American Society of Agricultural and Biological Engineers (ASABE) is an international educational and scientific organization dedicated to the advancement of engineering applicable to biological, food, and agricultural systems. Founded in 1907 and headquartered in St Joseph, Michigan, ASABE has members in more than 100 countries. For the purpose of this project, only members with U.S. company and academic affiliation will be involved.

The Society is recognized internationally for its technical leadership in all areas of biological, food, and agricultural engineering. ASABE is a world leader in the development of engineering standards for agriculture, with more than 250 standards, engineering practices, and data documents in publication. ASABE's standardization process is open, voluntary, and accredited by ANSI. In addition, thirteen ASABE technical committees have the distinction of serving as US voting bodies for ISO standards committees. Mr. Scott Cedarquist, Director of Standards, along with his staff, will administer the project. Brief biographies are included in the narrative.

**Scott Cedarquist**, Standards and Technical Director at ASABE has 15 years of experience in standards development. Scott has been instrumental in the seeking out, support, and development of the 13 U.S. TAGs currently administered by ASABE. Scott has a Mechanical Engineering degree with 16 years of experience in the nuclear industry prior to his tenure with ASABE. Scott believes that standards education and outreach raise awareness of safe practices and strengthen and support U.S. interests in global markets. He works tirelessly networking for ASABE member interests and looking for opportunities to provide member support. Mr. Cedarquist will devote 20-35% of his time to overall project management and implementation, depending on the given year of programming. Mr. Cedarquist will be supported by ASABE staff.

**Jean Walsh**, a recent addition to the ASABE standards staff in early 2015, comes with 15 years of administrative and bookkeeping experience in the area of non-profit organizations. Jean provides standards administration for ASABE standards development as well as for three ISO U.S. TAGs focused on areas of agriculture as well as support for four ISO U.S. TAGs administered by Standards Director Scott Cedarquist and special projects. Depending on the given year of programming, Ms. Walsh will spend 10-20% of her time in project implementation and support.

**Travis Tsunemori**, with 15 years of experience as the ASABE standards staff engineer, maintains the ASABE web forums, an online tool for ASABE committee work which includes document exchange and balloting for the ASABE administered ISO U.S. TAG 293. In addition, he provides engineering and standards development expertise to improve the content of ASABE standards. Travis has a bachelor's and a master's degrees in Biosystems Engineering from Oklahoma State University (OSU), and has previously worked for OSU and Phoenix International (a John Deere company). He also maintains and revises the ASABE Standardization Procedures, which are accredited by ANSI, as well as administering three ISO U.S. TAGs. Depending on the given year of programming, Mr. Tsunemori will spend 2-10% of his time in assisting in creating, updating and maintaining educational materials and the program website, and providing general project support.

**Joseph C. Walker, PhD**, Director of Publications at ASABE, directs the publishing of technical papers, peer-reviewed journal articles, *Resource* magazine, and text and reference books. He also assists with project management and computer system management for the organization. Dr. Walker received his PhD in Agricultural Engineering from North Carolina State University and has extensive experience in agricultural research as well as IT systems in both the automotive and nuclear industries. Dr. Walker's diverse background provides technical and publication support to the ASABE Standards Department. Dr. Walker provides technical expertise as an agricultural engineer. Depending on the given year of programming, Dr. Walker will spend 3-10% of his time providing technical expertise as well as assisting in creating, updating and maintaining educational materials and the program website.

#### AFIA

The American Feed Industry Association (AFIA), based in Arlington, VA, is the world's largest organization devoted exclusively to representing the business, legislative, and regulatory interests of the U.S. animal feed industry and its suppliers. Founded in 1909 as the American Feed Manufacturers Association, the name changed to AFIA in 1985 to recognize the importance of all types of companies involved in the feed manufacturing industry—from commercial and integrated feed manufacturers, to ingredient suppliers, pet food manufacturers and machinery manufacturers. Members include more than 600 domestic and international companies and state, regional, and national associations. Member companies are livestock, feed and pet food manufacturers, integrators, pharmaceutical companies, ingredient suppliers, machinery manufacturers, and companies who supply other products, services, and supplies to feed manufacturers. AFIA brings the expertise of its Equipment Manufacturer Committee, which has identified ISO/TC 293 a high priority to the industry and expressed the need for engagement to protect industry interests. AFIA is

committing two staff, Gary Huddleston and Gina Tumbarello, along with the support and expertise of its Equipment Manufacturer Committee and other members, to this project:

**Gary Huddleston**, AFIA’s Manager of Feed Manufacturing Safety and Environmental Affairs has more than 30 years of service in manufacturing. Huddleston manages AFIA’s efforts surrounding regulatory issues involving the Occupational Safety and Health Administration, the U.S. Environmental Protection Agency and the Department of Transportation. Mr. Huddleston manages AFIA’s Equipment Manufacturer Committee and Huddleston earned a bachelor’s degree in agribusiness and economics from Tennessee Technological University. Mr. Huddleston is the Chair of the U.S. ISO/TC 293 TAG. As such, Mr. Huddleston will support ASABE in coordinating industry efforts at the U.S. TAG level, as well as at the broader industry level, to engage in educating industry on ISO/TC 293, to find appropriate industry expertise and to represent the interests of the U.S. feed machinery manufacturers in the development of ISO/TC 293. Mr. Huddleston will also engage AFIA membership through AFIA’s Equipment Manufacturer Committee.

**Gina Tumbarello**, has over a decade of experience as a Washington insider and is AFIA’s Director of International Policy and Trade. She leads the management of priority import and export issues for the feed industry. Ms. Tumbarello has Bachelor in Diplomacy & Foreign Affairs and German from Miami University, Oxford, Ohio, and a Masters in International Policy Studies from the Middlebury Institute of International Studies, Monterey, California. Ms. Tumbarello will support ASABE’s efforts by providing international policy expertise, by engaging AFIA’s Equipment Manufacturer Committee, and by supporting engagement on ISO/TC 293 at the international level—leveraging relationships globally to gain support.

#### ISO/TC 293 U.S. TAG

Interest by ASABE and AFIA members was the impetus of the formation of the U.S. TAG. ASABE’s PRS 702 Committee on Crop and Feed Processing and Storage, along with members from AFIA’s Equipment Manufacturer Committee, and other industry experts such as those from U.S. Universities and labs, bring together research and industry to make up the ISO/TC 293 U.S. TAG. AFIA’s Gary Huddleston has been appointed the Chair of the U.S. TAG. U.S. TAG members have volunteered their time and expertise to this initiative and have committed to continued engagement throughout the development of ISO/TC 293. The U.S. TAG will develop and transmit U.S. positions on activities and ballots of the ISO TC.

### **7. Evidence of Support from U.S. Firms Interested in Participating**

Company interest and support in ISO TC 293 Feed Machinery participation project


<b>Company</b>	<b>Sector</b>	<b>Notes</b>	<b>MDCP project</b>
[XXXX] [XXXX]	Trade Association	Represents applicable industry segments	Committed to participate
[XXXX] [XXXX]	Research	Research	Committed to participate
[XXXX] [XXXX]	Academic and Research	Agriculture and biosystems engineering	Committed to participate
[XXXX] [XXXX]	Animal Feed	Livestock nutrition	Committed to participate
[XXXX] [XXXX]	Trade Association	Represents applicable industry segments	Committed to participate

[XXXX] [XXXX]	Academic and Research	Research - grains, processing, feed engineering	Committed to participate
[XXXX] [XXXX]	Manufacturing	Feed equipment manufacture	Committed to participate

Proprietary information, identified between brackets [ ], will not be made publically available.

## 8. Use of ITA Emblem

### ISO/TC 293 Feed Machinery



**About TC 293**

ISO Technical Committee 293, established in 2015, will develop international standards for feed machinery. More than twenty countries are currently engaged in the work. Their initial focus areas:

- Safety
- Terminology
- Hygiene

**Why ISO?**

ISO standards are the international language of trade. The ISO library contains nearly 20,000 published documents.

ISO membership consists of 162 national standards bodies, whose input is vital to a robust consensus process.

**Why TC 293?**

More than 30,000 feed processing mills operate throughout the world, and more than 100 countries are involved in the import and export of feed machinery annually. Industry standards produced by ISO/TC 293 will facilitate international trade by providing common methodologies and practices worldwide.

**Be Informed**

Standards streamline your processes and reduce costs. Become an observing member of the US Technical Advisory Group (TAG) to TC 293 to stay aware of trends within your industry.

**Be Involved**

Now is the time, the work is just underway. Join the effort as a voting member of the US TAG to have a powerful and lasting influence on standards that will affect your company.

**Be a Leader**




Experts from diverse backgrounds help create better standards.

**BE AN INTERNATIONAL  
VOICE FOR YOUR INDUSTRY**

For more information visit:  
[www.asabe.org/FeedMachinery](http://www.asabe.org/FeedMachinery)

**Or contact**

Scott Cedarquist  
(269) 932-7031 – [cedarq@asabe.org](mailto:cedarq@asabe.org)  
Gary Huddleston  
(703) 666-8854 – [Ghuddleston@afia.org](mailto:Ghuddleston@afia.org)

9. **Success Agreement-** This is not applicable to this funding opportunity because the project is focused on achieving certainty in industry standards, rather than export promotion (per pg. 21 of the Federal Funding Document, ITA-INA-OPCM-2016-2004724, <http://www.grants.gov/web/grants/view-opportunity.html?oppId%3D281029>).

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<sup>1</sup> 2015 Top Markets Report Agricultural Equipment: A Market Assessment Tool for U.S. Exporters. International Trade Administration. July 2015: 3.

## **RE: Market Development Cooperator Program Application**

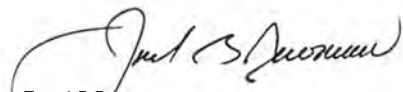
Market Development Program Reviewers,

I would like to express the American Feed Industry Association's (AFIA) support of the American Society of Agricultural and Biological Engineers' (ASABE) application for funding through the Market Development Cooperator Program. AFIA staff along with its membership is committed to the work described in the application. Gary Huddleston, Manager of Feed Manufacturing, Safety and Environmental Affairs, along with Gina Tumbarello, Director of International Policy and Trade, will commit the necessary time and travel on behalf of AFIA to ensure the success of the project. In addition, AFIA's Equipment Manufacturers Committee, made up of equipment manufacturing members of our association, will remain engaged in the work of this project and provide technical expertise where best suited. The work of ISO Technical Committee 293 is very important to our membership and the future exports of U.S. feed machinery.

AFIA is based in Arlington, Va., is the world's largest organization devoted exclusively to representing the business, legislative and regulatory interests of the U.S. animal feed industry and its suppliers. Founded in 1909 as the American Feed Manufacturers Association, the name changed to AFIA in 1985 to recognize the importance of all types of companies involved in the feed manufacturing industry—from commercial and integrated feed manufacturers, to ingredient suppliers, pet food manufacturers and machinery manufacturers. AFIA is also the recognized leader on international industry developments and holds membership in the International Feed Industry Federation.

Members include more than 600 domestic and international companies and state, regional and national associations. Member companies are livestock, feed and pet food manufacturers, integrators, pharmaceutical companies, ingredient suppliers, machinery manufacturers and companies who supply other products, services and supplies to feed manufacturers.

Yours Sincerely,



**Joel Newman**  
President and CEO





**Congress of the United States**  
**House of Representatives**

February 24, 2016

DC OFFICE:

☐ 2183 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-2206  
(202) 225-3761  
FAX: (202) 225-4986

MICHIGAN HOME OFFICES:

☐ 157 SOUTH KALAMAZOO MALL  
SUITE 180  
KALAMAZOO, MI 49007  
(269) 385-0039  
FAX: (269) 385-2888

☐ 720 MAIN STREET  
ST. JOSEPH, MI 49086  
(269) 982-1986  
FAX: (269) 982-0237

<http://upton.house.gov>

Market Development Cooperator Program Reviewers,

I would like to express my support for the efforts of the American Society of Agricultural and Biological Engineers (ASABE) in cooperation with the American Feed Industry Association (AFIA) as they apply for funding through the Market Development Cooperator Program.

ASABE has been the leading agricultural equipment standards developer in the United States for over 100 years, headquartered in my hometown of Saint Joseph, Michigan. Their focus on the standardization of equipment design and safety for the agricultural industry has enabled the United States to take a leading role in safe and effective food production for decades. It is clear that the American Feed Industry Association has also been a longtime advocate for not only manufacturers of machinery and products to support livestock but also of the farmers and ranchers in our country. The work of these two organizations is pivotal in the continued support and development of technology and food production.

Supplying U.S. manufactured products on a level playing field to the global market boosts not only our economy but provides other countries with the highest quality machinery and products available in the competitive international arena. ASABE and AFIA are committed through their association with their International Standards Organization affiliations to the development of feed machinery standards that uphold the high quality of not only machinery but of the livestock feed produced. Quality feed will produce healthier livestock and thus provide greater good in all global markets.

A focus of the Market Development Cooperator Program is to stabilize or increase United States exports. If the U.S. is not well represented in the development of these international standards, other countries will lead the development of the standards according to their agenda, using the international standards label to validate a lesser level of quality as opposed to U.S. standards of production and safety.

It is vital that the United States do all in our power to increase and support our participation in maintaining the higher standards of safety and design, not only to stabilize our own exports but to provide an economical choice of quality equipment and feed for our own country as well as the rest of the world.

I encourage you to consider the major global impact that supporting the ASABE/AFIA project in ISO TC 293 Feed Machinery participation will have.

Page 2

Thanking you for supporting the American Society of Agricultural and Biological Engineers, I remain,

Very truly yours,

A handwritten signature in black ink, appearing to read "Fred Upton", with a long horizontal flourish extending to the right.

Fred Upton  
Member of Congress

FSU;jz

**Budget With Breakdown of Projected Funding Sources**

Categories		Total Expenses for All Years				1st Year				2nd Year				3rd Year				4th Year				5th Year			
		Non-Fed Share				Non-Fed Share				Non-Fed Share				Non-Fed Share				Non-Fed Share				Non-Fed Share			
		your organization's		Cash from		your organization's		Cash from		your organization's		Cash from		your organization's		Cash from		your organization's		Cash from		your organization's		Cash from	
		Fed Share	Pgm Income			Other	In-Kind			Fed Share	Pgm Income			Other	In-Kind			Fed Share	Pgm Income			Other	In-Kind		
DIRECT EXPENSES		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x
	PERSONNEL																								
1	Domestic	0	0	266,624	0	0	0	53,410	0	0	0	51,128	0	0	0	37,866	0	0	0	77,129	0	0	0	47,090	0
2	International	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	TOTAL	0	0	266,624	0	0	0	53,410	0	0	0	51,128	0	0	0	37,866	0	0	0	77,129	0	0	0	47,090	0
	FRINGE BENEFITS																								
4	Dom. Rate = 30.0%	0	0	79,987	0	0	0	16,023	0	0	0	15,339	0	0	0	11,360	0	0	0	23,139	0	0	0	14,127	0
5	Int'l. Rate = 0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	TOTAL	0	0	79,987	0	0	0	16,023	0	0	0	15,339	0	0	0	11,360	0	0	0	23,139	0	0	0	14,127	0
	TRAVEL																								
7	Domestic	105,372	75,350	0	0	40,710	25,450	0	0	13,944	6,816	0	0	11,778	6,816	0	0	27,162	29,452	0	0	11,778	6,816	0	0
8	International	102,116	18,388	0	0	21,602	3,696	0	0	37,310	7,300	0	0	21,602	3,696	0	0	0	0	0	0	21,602	3,696	0	0
9	TOTAL	207,488	93,738	0	0	62,312	29,146	0	0	51,254	14,116	0	0	33,380	10,512	0	0	27,162	29,452	0	0	33,380	10,512	0	0
10	EQUIPMENT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	SUPPLIES	1,800	0	0	0	360	0	0	0	360	0	0	0	360	0	0	0	360	0	0	0	360	0	0	0
12	CONTRACTUAL	10,124	0	0	212,400	6,350	0	0	56,700	1,474	0	0	36,900	500	0	0	27,450	1,300	0	0	63,900	500	0	0	27,450
13	OTHER	40,700	0	0	0	9,900	0	0	0	3,800	0	0	0	3,800	0	0	0	19,400	0	0	0	3,800	0	0	0
	TOTAL DIRECT																								
14	Sum from above	260,112	93,738	346,611	212,400	78,922	29,146	69,433	56,700	56,888	14,116	66,467	36,900	38,040	10,512	49,226	27,450	48,222	29,452	100,268	63,900	38,040	10,512	61,217	27,450
15	Sum all direct columns	Sum line 16 columns a, b, c, d				Sum line 16 columns e, f, g, h				Sum line 16 columns i, j, k, l				Sum line 16 columns m, n, o, p				Sum line 16 columns m, n, o, p				Sum line 16 columns m, n, o, p			
		912,861				234,201				174,371				125,228				241,842				137,219			
INDIRECT EXPENSES		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	m	n	o	p	m	n	o	p
16	Indirect Rate : 10.0%			91,286				23,420				17,437				12,523				24,184				13,722	
17	% of Total (line 20)			9.1%				9.1%				9.1%				9.1%				9.1%				9.1%	
TOTAL		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	m	n	o	p	m	n	o	p
18	Dir.+Indir.	260,112	93,738	437,897	212,400	78,922	29,146	92,853	56,700	56,888	14,116	83,904	36,900	38,040	10,512	61,749	27,450	48,222	29,452	124,452	63,900	38,040	10,512	74,939	27,450
19	% of Total (line 20)	25.9%	9.3%	43.6%	21.2%																				
All Expense Columns																									
20	Total	Sum line 16 columns a, b, c, d				Sum line 16 columns e, f, g, h				Sum line 16 columns i, j, k, l				Sum line 16 columns m, n, o, p				Sum line 16 columns m, n, o, p				Sum line 16 columns m, n, o, p			
		1,004,147				257,621				191,808				137,751				266,026				150,941			

# Budget- Activity Calculation

Green: data entered on this worksheet  
 Blue: calculated from data that appears on this worksheet  
 Violet: data from another worksheet

#Explanation & Calculation										1st Year				2nd Year				3rd Year				4th Year				5th Year										
										Fed Share	Non-Fed Share			Fed Share	Non-Fed Share			Fed Share	Non-Fed Share			Fed Share	Non-Fed Share			Fed Share	Non-Fed Share									
											Cash		In-Kind		Cash		In-Kind		Cash		In-Kind		Cash		In-Kind											
											Pgm Inc	Other			Pgm Inc	Other			Pgm Inc	Other			Pgm Inc	Other			Pgm Inc	Other								
Daily expense										Expenses/traveler																										
a										b	c	d=(a+b)*c	e	f	g	h=(d+e+f)*g																				
(Travel source: Expeda search & federal perdiem rates)										Lodging	Meals & incidental expenses	Days	Sub	Airfare	Local travel & Misc	Travelers	Total																			
Travel domestic																																				
1 IPPE										138	69	4	828	450	150	2	2,856	2,856																		
ASABE staff										138	69	4	828	450	150	1	1,428	1,428																		
AFIA staff										138	69	3	621	450	150	2	2,442	1,214	1,228																	
Other industry participants																																				
2 ISO Training										200		2	400	450	150	2	2,000	2,000																		
ASABE staff										200		2	400	450	150	2	2,000	2,000																		
AFIA staff										200		2	400	450	150	2	2,000	2,000																		
Other industry participants										200		2	400	450	150	16	16,000	6,400	9,600																	
3 GEAPS										158	96	5	1,270	450	150	1	1,870	1,870																		
ASABE staff										158	96	5	1,270	450	150	1	1,870	880	990																	
AFIA staff																																				
4 US TAG Meetings (2 in year 1; 1 each additional year)										226	89	2	630	450	150	1	1,230	2,460		1,230			1,230					1,230								
ASABE staff										226	89	2	630	450	150	1	1,230	2,460		1,230			1,230				1,230									
AFIA staff										226	89	1	315	450	150	16	14,640	15,648	13,632		7,824	6,816		7,824	6,816		7,824	6,816								
Other industry participants																																				
5 Meetings with ITA in MI (every other year)										93	54	1	147	450	150	2	1,494	1,494				1,494						1,494								
AFIA staff																																				
6 Meetings with ITA in DC (every other year)										226	89	1	315	450	150	2	1,830			1,830				1,830												
ASABE staff										226	89	1	315	450	150	2	1,830			1,830				1,830												
AFIA staff																																				
7 US host TC meeting										226		6	1,356	450	200	2	4,012							4,012												
ASABE staff										226		6	1,356	450	200	1	2,006						2,006	1,356												
AFIA staff																																				
Other industry participants										226		5	1,130	450	200	16	28,480																			
Travel (domestic) TOTAL																	40,710	25,450	0	0	13,944	6,816	0	0	11,778	6,816	0	0	27,162	29,452	0	0	11,778	6,816	0	0

#Explanation & Calculation										1st Year				2nd Year				3rd Year				4th Year				5th Year			
										Fed Share	Non-Fed Share			Fed Share	Non-Fed Share			Fed Share	Non-Fed Share			Fed Share	Non-Fed Share			Fed Share	Non-Fed Share		
											Cash		In-Kind		Cash		In-Kind		Cash		In-Kind		Cash		In-Kind				
											Pgm Inc	Other			Pgm Inc	Other			Pgm Inc	Other			Pgm Inc	Other			Pgm Inc	Other	

#										Explanation & Calculation										1st Year				2nd Year				3rd Year				4th Year				5th Year			
																				Fed Share	Non-Fed Share			Fed Share	Non-Fed Share			Fed Share	Non-Fed Share			Fed Share	Non-Fed Share			Fed Share	Non-Fed Share		
																					Cash		In-Kind		Cash		In-Kind		Cash		In-Kind		Cash		In-Kind				
																					Pgm Inc	Other			Pgm Inc	Other			Pgm Inc	Other			Pgm Inc	Other			Pgm Inc	Other	
																				Fed Share	Pgm Inc	Other	In-Kind	Fed Share	Pgm Inc	Other	In-Kind	Fed Share	Pgm Inc	Other	In-Kind	Fed Share	Pgm Inc	Other	In-Kind				
Other										Fee	#	Total																											
22	ISO Training																																						
	Room Rental									100	1	100	100																										
	Meals									2,200	1	2,200	2,200																										
23	US TAG Meetings																																						
	Room Rental									2,000	1	2,000	4,000				2,000				2,000					2,000													
	Coffee/snack breaks									1,000	1	1,000	2,000				1,000				1,000					1,000													
	AV									800	1	800	1,600				800				800					800													
24	TC Meeting																																						
	Room Rental									2,000	2	4,000									4,000																		
	Coffee breaks/lunches/reception									8,000	1	8,000									8,000																		
	AV									800	2	1,600									1,600																		
	Tour									2,000	1	2,000									2,000																		
TOTAL																																							
										9,900	0	0	0	0	3,800	0	0	0	0	3,800	0	0	0	0	19,400	0	0	0	0	3,800	0	0	0	0					
										a	b	c=a <b>b</b>																											
Travel (dom)										40,710	25,450	0	0	13,944	6,816	0	0	11,778	6,816	0	0	27,162	29,452	0	0	11,778	6,816	0	0										
Travel (int'l)										21,602	3,696	0	0	37,310	7,300	0	0	21,602	3,696	0	0	0	0	0	0	21,602	3,696	0	0										
Equipment										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
Supplies										360	0	0	0	360	0	0	0	360	0	0	0	360	0	0	0	360	0	0	0										
Contractual										6,350	0	0	56,700	1,474	0	0	36,900	500	0	27,450	1,300	0	63,900	500	0	27,450													
Other										9,900	0	0	0	3,800	0	0	0	3,800	0	0	0	19,400	0	0	0	3,800	0	0	0										
TOTAL										78,922	29,146	0	56,700	56,888	14,116	0	36,900	38,040	10,512	0	27,450	48,222	29,452	0	63,900	38,040	10,512	0	27,450										

## Budget- Personnel

Green: data entered on this worksheet

Blue: calculated from data entered on this worksheet

Violet: data from another worksheet

# Explanation & Calculation <a href="#">click here for GSA rates used</a>											1st Year				2nd Year				3rd Year				4th Year				5th Year							
											Fed Share	Non-Fed Share			In-Kind	Fed Share	Non-Fed Share			In-Kind	Fed Share	Non-Fed Share			In-Kind	Fed Share	Non-Fed Share			In-Kind	Fed Share	Non-Fed Share		
												Cash					Cash					Cash					Cash					Cash		
												Pgm Inc	Other				Pgm Inc	Other				Pgm Inc	Other				Pgm Inc	Other				Pgm Inc	Other	
Salary calculation																																		
Ann. Increase																																		
a											b				C																			
days/year																																		
Y1 Y2 Y3 Y4 Y5 EstimatedGS Grade/Step GS annual rate GS daily rate GS																																		
Personnel domestic																																		
1	ASABE-Scott Cedarquist	Strategic planning, general oversight, personnel decisions, member relations, trade missions	70	65	52	91	65	GS-14 Step 10	129,723	498.93	3%	35,025				33,404				26,723				46,765				33,404						
2	ASABE-Jean Walsh	Planning and support for project activities.	44	39	26	52	39	GS-7 Step 8	49,374	189.90	3%	8,394				7,628				5,086				10,171				7,628						
3	ASABE-Joe Walker	Support for project activities, education material, website development	13	13	8	26	8	GS-14 Step 10	129,723	498.93		6,486				6,486				3,892				12,972				3,892						
4	ASABE-Travis Tsunemori	Technical expertise, support for project activities, education material, website development	13	13	8	26	8	GS-10 Step 10	70,103	269.63	3%	3,505				3,610				2,166				7,221				2,166						
Domestic											0	0	53,410	0	0	0	51,128	0	0	0	37,866	0	0	0	77,129	0	0	0	47,090	0				
International											0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Total											0	0	53,410	0	0	0	51,128	0	0	0	37,866	0	0	0	77,129	0	0	0	47,090	0				

## Budget Program Narrative

<b>ANSI ISO training</b>	<ul style="list-style-type: none"> <li>• Training will be hosted in the Chicago area.</li> <li>• Participants include ASABE, AFIA staff and 16 industry representatives</li> <li>• ASABE will collect “program income” from industry participants to cover accommodation with an additional \$200 for program coordination and implementation.</li> <li>• ASABE will coordinate reimbursement of federal funds to cover participants’ airfare, and distribution of per diems for meals and miscellaneous expenses.</li> </ul>
<b>Website development</b>	<ul style="list-style-type: none"> <li>• Includes outside contracting for translation at a daily rate of GS 15/Step 8 (\$550/day)</li> </ul>
<b>Brochure development</b>	<ul style="list-style-type: none"> <li>• Includes outside contracting for translation in multiple languages at a daily rate of GS 15/Step 8 (\$550/day)</li> <li>• Includes printing for use at conventions, TAG meetings, TC meetings in China and U.S.</li> </ul>
<b>Attend IPPE and meet with local ITA cooperators/staff- 2017</b>	<ul style="list-style-type: none"> <li>• ASABE staff and AFIA staff will attend and 2 representatives from industry will attend.</li> <li>• ASABE will collect “program income” from industry participants to cover accommodation with an additional \$200 for program coordination and implementation to include booth space, brochure handouts, meetings on-site, and meetings with local ITA cooperators/staff.</li> <li>• ASABE will coordinate reimbursement of federal funds to cover participants’ airfare, and distribution of per diems for meals and miscellaneous expenses.</li> </ul>
<b>Attend GEAPS- 2017</b>	<ul style="list-style-type: none"> <li>• ASABE staff and AFIA staff will attend to increase awareness and participation of the U.S. feed machinery manufacturing industry.</li> <li>• ASABE will coordinate reimbursement of federal funds to cover airfare, hotel, and distribution of per diems for meals and miscellaneous expenses.</li> </ul>
<b>Host TAG meetings</b>	<ul style="list-style-type: none"> <li>• ASABE will host 2 TAG meetings in 2017 and one each year thereafter</li> <li>• ASABE staff, AFIA staff and 16 industry representatives (TAG members) will participate</li> <li>• ASABE will collect “program income” from industry participants to cover accommodation with an additional \$200 for program coordination and implementation of the meetings.</li> <li>• ASABE will coordinate reimbursement of federal funds to cover participants’ airfare, and distribution of per diems for meals and miscellaneous expenses.</li> </ul>
<b>Annual meetings with DC and Local ITA cooperators</b>	<ul style="list-style-type: none"> <li>• Meetings will be held in Michigan in 2017, 2019, and 2021, and in DC in 2018 and 2020</li> <li>• ASABE will coordinate reimbursement of federal funds to cover participants’ airfare, hotel, and distribution of per diems for meals and</li> </ul>



	miscellaneous expenses.
<b>TC meetings in China</b>	<ul style="list-style-type: none"> <li>• Will be held in 2017, 2018, 2019 and 2021</li> <li>• ASABE, AFIA and 3 industry representatives will travel to China</li> <li>• ASABE will collect “program income” from industry participants to cover accommodation with an additional \$200 for program coordination and implementation to include pre-trip briefing with ITA-DC, and meetings with ITA cooperators in China.</li> <li>• ASABE will coordinate reimbursement of federal funds to cover participants’ airfare, and distribution of per diems for meals and miscellaneous expenses.</li> </ul>
<b>Host TC meeting in U.S.</b>	<ul style="list-style-type: none"> <li>• ASABE will host the 2020 TC meeting in the U.S. to allow greater domestic participation and engagement in the process</li> <li>• Funding will cover participation for ASABE, AFIA and 16 industry representatives and hosting foreign delegates.</li> <li>• ASABE will collect “program income” from industry participants to cover accommodation with an additional \$200 for program coordination and implementation to include pre-meeting brief with ITA, arranging a tour for meeting participants, and meetings with local ITA cooperators.</li> <li>• ASABE will coordinate reimbursement of federal funds to cover participants’ airfare, and distribution of per diems for meals and miscellaneous expenses.</li> </ul>
<b>Attend EuroTier- 2018</b>	<ul style="list-style-type: none"> <li>• ASABE staff and AFIA staff will attend and 2 representatives from industry will attend.</li> <li>• ASABE will collect “program income” from industry participants to cover accommodation with an additional \$200 for program coordination and implementation to include meetings on-site, pre-trip briefing with ITA-DC, and meetings with local ITA cooperators/staff in Europe.</li> <li>• ASABE will coordinate reimbursement of federal funds to cover participants’ airfare, and distribution of per diems for meals and miscellaneous expenses. AFIA representatives will provide for their lodging and per diems for meals and miscellaneous expenses.</li> </ul>

## Budget Application Narrative – In-kind Contribution

### P-12 , #8 In-kind explanation

Program Activities	In-Kind Contribution Explanation
<ul style="list-style-type: none"><li>• ANSI ISO training</li><li>• Attend IPPE and meet with local ITA cooperators/staff- 2017</li><li>• Attend GEAPS- 2017</li><li>• Host TAG meetings</li><li>• Annual meetings with DC and Local ITA cooperators</li><li>• TC meetings in China</li><li>• Host TC meeting in U.S.</li><li>• Attend EuroTier- 2018</li></ul>	<ul style="list-style-type: none"><li>• Any AFIA staff and industry participants will be in-kind. Their time and expertise will be donated.</li><li>• Daily rate is calculated at \$450/day (roughly a GS 14/Step 6)- what we believe is a fair market value for industry, university and other expertise.</li><li>• AFIA staff and industry participants provide unique expertise and knowledge that is imperative to key engagement by the U.S. industry on ISO TC 293 standard development.</li><li>• All participation is for the purpose of furthering industry engagement in the international standard development process and not for individual or company gain.</li></ul>



American Society of  
Agricultural and Biological Engineers

FINANCIAL STATEMENTS WITH SUPPLEMENTARY INFORMATION

For the Years Ended December 31, 2014 and 2013

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## INDEPENDENT AUDITOR'S REPORT

To the Board of Trustees of  
American Society of Agricultural & Biological Engineers

We have audited the accompanying financial statements of American Society of Agricultural & Biological Engineers (a nonprofit organization), which comprise the statements of financial position as of December 31, 2014 and 2013, and the related statements of activities and cash flows for the years then ended, and the related notes to the financial statements.

### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of American Society of Agricultural & Biological Engineers as of December 31, 2014 and 2013, and the changes in its net assets and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

A handwritten signature in cursive script that reads "Schaffer &amp; Layher".

Schaffer & Layher  
St. Joseph, Michigan  
March 23, 2015

David Schaffer, CPA  
Michael Layher, CPA  
*Founding Partners:*  
Morris McMurray, CPA  
Raymond Marks, CPA  
Jeff Edmunds, CPA

AMERICAN SOCIETY OF AGRICULTURAL AND BIOLOGICAL ENGINEERS  
STATEMENT OF FINANCIAL POSITION  
AS OF DECEMBER 31, 2014

	Unrestricted		2014
	Current Operations	Long-Term Investments	
<b>Assets</b>			
<b>Current Assets</b>			
Cash and cash equivalents	\$ 1,642,737	\$ 1,982	\$ 1,644,719
Accounts receivable	25,124	-	25,124
Investments, at fair value (cost \$2,052,599)	-	2,287,213	2,287,213
Prepaid expenses	4,913	-	4,913
Book inventory	113,572	-	113,572
Due from (to) inter-fund	(11,282)	11,282	-
<b>Total Current Assets</b>	<b>\$ 1,775,064</b>	<b>\$ 2,300,477</b>	<b>\$ 4,075,541</b>
<b>Property and Equipment, at cost, less accumulated depreciation of \$1,056,991</b>	<b>317,049</b>	<b>-</b>	<b>317,049</b>
<b>Total Assets</b>	<b>\$ 2,092,113</b>	<b>\$ 2,300,477</b>	<b>\$ 4,392,590</b>
<b>Liabilities</b>			
<b>Current Liabilities</b>			
Accounts payable and accrued expenses	\$ 311,557	\$ -	\$ 311,557
Unearned revenue from dues and sales	1,024,176	-	1,024,176
<b>Total Current Liabilities</b>	<b>\$ 1,335,733</b>	<b>\$ -</b>	<b>\$ 1,335,733</b>
<b>Net Assets</b>			
Unrestricted	756,380	2,300,477	3,056,857
<b>Total Liabilities and Net Assets</b>	<b>\$ 2,092,113</b>	<b>\$ 2,300,477</b>	<b>\$ 4,392,590</b>

*The accompanying notes are an integral part of the financial statements.*

AMERICAN SOCIETY OF AGRICULTURAL AND BIOLOGICAL ENGINEERS  
STATEMENT OF FINANCIAL POSITION  
AS OF DECEMBER 31, 2013

	Unrestricted		2013
	Current Operations	Long-Term Investments	
<b>Assets</b>			
<b>Current Assets</b>			
Cash and cash equivalents	\$ 1,401,546	\$ 17,830	\$ 1,419,376
Accounts receivable	41,290	-	41,290
Investments, at fair value (cost \$1,913,367)	-	2,273,810	2,273,810
Prepaid expenses	5,046	-	5,046
Book inventory	144,619	-	144,619
Due from (to) inter-fund	(9,372)	9,372	-
<b>Total Current Assets</b>	<b>\$ 1,583,129</b>	<b>\$ 2,301,012</b>	<b>\$ 3,884,141</b>
 <b>Property and Equipment, at cost, less accumulated depreciation of \$1,012,945</b>	 338,940	 -	 338,940
<b>Total Assets</b>	<b>\$ 1,922,069</b>	<b>\$ 2,301,012</b>	<b>\$ 4,223,081</b>
 <b>Liabilities</b>			
<b>Current Liabilities</b>			
Accounts payable and accrued expenses	\$ 257,311	\$ -	\$ 257,311
Unearned revenue from dues and sales	908,378	-	908,378
<b>Total Current Liabilities</b>	<b>\$ 1,165,689</b>	<b>\$ -</b>	<b>\$ 1,165,689</b>
 <b>Net Assets</b>			
Unrestricted	756,380	2,301,012	3,057,392
<b>Total Liabilities and Net Assets</b>	<b>\$ 1,922,069</b>	<b>\$ 2,301,012</b>	<b>\$ 4,223,081</b>

*The accompanying notes are an integral part of the financial statements.*

AMERICAN SOCIETY OF AGRICULTURAL AND BIOLOGICAL ENGINEERS  
STATEMENT OF ACTIVITIES  
FOR THE YEAR ENDED DECEMBER 31, 2014

	Unrestricted		
	Current Operations	Long-Term Investments	2014
<b>Revenues</b>			
Membership	\$ 646,375	\$ -	\$ 646,375
Publications	1,137,414	-	1,137,414
Meetings and conferences	838,230	-	838,230
Standards program contribution	418,058	-	418,058
Other revenues	292,328	-	292,328
Interest income	-	2,073	2,073
Dividend income	-	51,113	51,113
Realized gains from investments	-	174,711	174,711
Unrealized depreciation on investments	-	(125,829)	(125,829)
<b>Total Revenues</b>	<u>\$ 3,332,405</u>	<u>\$ 102,068</u>	<u>\$ 3,434,473</u>
<b>Expenses</b>			
Salaries and benefits	\$ 1,661,768	\$ -	\$ 1,661,768
Other operating expenses	396,548	113,885	510,433
Program costs and expenses	1,262,807	-	1,262,807
<b>Total Expenses</b>	<u>\$ 3,321,123</u>	<u>\$ 113,885</u>	<u>\$ 3,435,008</u>
<b>Change In Net Assets Before Transfers</b>	\$ 11,282	\$ (11,817)	\$ (535)
<b>Interfund Transfers</b>	<u>(11,282)</u>	<u>11,282</u>	<u>-</u>
<b>Change In Net Assets</b>	\$ -	\$ (535)	\$ (535)
<b>Net Assets - Beginning of Year</b>	<u>756,380</u>	<u>2,301,012</u>	<u>3,057,392</u>
<b>Net Assets - End of Year</b>	<u>\$ 756,380</u>	<u>\$ 2,300,477</u>	<u>\$ 3,056,857</u>

*The accompanying notes are an integral part of the financial statements.*



AMERICAN SOCIETY OF AGRICULTURAL AND BIOLOGICAL ENGINEERS  
STATEMENT OF ACTIVITIES  
FOR THE YEAR ENDED DECEMBER 31, 2013

	Unrestricted		
	Current Operations	Long-Term Investments	2013
<b>Revenues</b>			
Membership	\$ 610,903	\$ -	\$ 610,903
Publications	1,177,900	-	1,177,900
Meetings and conferences	767,832	-	767,832
Standards program contribution	338,567	-	338,567
Other revenues	221,365	-	221,365
Interest income	-	2,514	2,514
Dividend income	-	61,808	61,808
Realized gains from investments	-	41,652	41,652
Unrealized appreciation on investments	-	131,748	131,748
<b>Total Revenues</b>	<b>\$ 3,116,567</b>	<b>\$ 237,722</b>	<b>\$ 3,354,289</b>
<b>Expenses</b>			
Salaries and benefits	\$ 1,640,601	\$ -	\$ 1,640,601
Other operating expenses	386,730	71,430	458,160
Program costs and expenses	1,079,864	-	1,079,864
<b>Total Expenses</b>	<b>\$ 3,107,195</b>	<b>\$ 71,430</b>	<b>\$ 3,178,625</b>
<b>Change In Net Assets Before Transfers</b>	<b>\$ 9,372</b>	<b>\$ 166,292</b>	<b>\$ 175,664</b>
<b>Interfund Transfers</b>	<b>(9,372)</b>	<b>9,372</b>	<b>-</b>
<b>Change In Net Assets</b>	<b>\$ -</b>	<b>\$ 175,664</b>	<b>\$ 175,664</b>
<b>Net Assets - Beginning of Year</b>	<b>756,380</b>	<b>2,125,348</b>	<b>2,881,728</b>
<b>Net Assets - End of Year</b>	<b>\$ 756,380</b>	<b>\$ 2,301,012</b>	<b>\$ 3,057,392</b>

*The accompanying notes are an integral part of the financial statements.*

AMERICAN SOCIETY OF AGRICULTURAL AND BIOLOGICAL ENGINEERS  
 STATEMENTS OF CASH FLOWS  
 For the Years Ended December 31, 2014 and 2013

	2014	2013
<b>Cash Flows From Operating Activities</b>		
Change in net assets	\$ (535)	\$ 175,664
Adjustments to reconcile change in net assets to net cash provided by operations:		
Depreciation	44,046	43,722
Realized gains from investments	(174,711)	(41,652)
Unrealized depreciation (appreciation) of investments	125,829	(131,748)
Changes in current assets and liabilities:		
Accounts receivable	16,166	11,991
Prepaid expenses	133	14,133
Book inventory	31,047	21,443
Accounts payable and accrued expenses	54,246	18,088
Unearned revenue from dues and sales	115,798	137,530
<b>Net Cash Provided by Operating Activities</b>	<u>\$ 212,019</u>	<u>\$ 249,171</u>
<b>Cash Flows From Investing Activities</b>		
Purchase of equipment	\$ (22,155)	\$ (30,109)
Purchase of investments	(1,121,361)	(565,654)
Proceeds from sale of investments	1,156,840	524,646
<b>Net Cash Provided by (Used in) Investing Activities</b>	<u>\$ 13,324</u>	<u>\$ (71,117)</u>
<b>Net Increase in Cash and Cash Equivalents</b>	\$ 225,343	\$ 178,054
<b>Cash and Cash Equivalents, Beginning of Year</b>	<u>1,419,376</u>	<u>1,241,322</u>
<b>Cash and Cash Equivalents, End of Year</b>	<u><u>\$ 1,644,719</u></u>	<u><u>\$ 1,419,376</u></u>

*The accompanying notes are an integral part of the financial statements.*

**NOTE1. NATURE OF BUSINESS**

The American Society of Agricultural and Biological Engineers (the "Society") is a non-profit organization which promotes the science and art of engineering in agriculture, encourages original research, fosters agricultural and biological engineering in education, advances the standards of agricultural and biological engineering and seeks to increase and extend the association of agricultural and biological engineering among and with the allied scientists and technologists. The majority of Society members and customers are within the United States and Canada.

**NOTE 2. SIGNIFICANT ACCOUNTING POLICIES**

**Basis of Accounting:**

The financial statements of the Society have been prepared utilizing the accrual basis of accounting.

**Basis of Presentation:**

The Society prepares its financial statements in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 958-210, *Financial Statements of Not-for-Profit Organizations*. Under the provision of FASB ASC 958-210, the Society is required to report information regarding its financial position and activities according to the following three classes of net assets:

*Unrestricted Net Assets* - Reflect assets which have not been restricted as to use by donors. Certain of these assets may have been designated by the Board to be used for a specific purpose.

*Temporarily Restricted Net Assets* - Reflect contributed assets whose use by the Society has been limited by donors for a specific time period or purpose.

*Permanently Restricted Net Assets* - Reflect contributions with donor-imposed restrictions which do not expire and which allow, in certain cases, only the income earned thereon to be expended by the Society.

**Investments:**

The Society's investments are recorded in accordance with FASB ASC 958-320, *Accounting for Certain Investments Held by Not-for-Profit Organizations*, investments in securities are recorded at market value (see Note 4).

**NOTE 2. SIGNIFICANT ACCOUNTING POLICIES, CONCLUDED**

**Property and Equipment:**

Property and equipment are recorded at cost or at estimated fair value at the date of gift. Donations are reported as unrestricted support unless the donor has restricted the donated asset to a specific purpose. The Society follows the practice of capitalizing all expenditures for property and equipment in excess of \$1,000. Depreciation is provided using the straight-line method over the estimated useful lives of the assets.

**Book Inventory:**

Inventory, which consists of books for resale, is recorded at cost determined by the moving weighted average method.

**Unearned Revenue:**

Unearned revenue from dues, magazine subscriptions, and conferences represents next year's memberships and sales collected during the current year.

**Cash and Cash Equivalents:**

Cash and cash equivalents consist of short-term, highly liquid investments with an original maturity of ninety (90) days or less.

**Estimates:**

The process of preparing financial statements in conformity with accounting principles generally accepted in the United States of America requires the use of management estimates and assumptions regarding certain types of assets, liabilities, revenues, and expenses.

**Revenue Recognition:**

Membership dues and program fees are recognized over the period of membership. Amounts received in advance are recorded as deferred revenue.

**Subsequent Events:**

Subsequent events have been evaluated through March 23, 2015 which is the date the financial statements were ready to be issued.

**NOTE 3. FINANCIAL INSTRUMENTS**

The Society is following the provisions of FASB ASC 820-10, *Fair Value Measurement*, for financial assets and liabilities measured at fair value on a recurring basis. FASB ASC 820-10 applies to all financial assets and financial liabilities that are being measured and reported on a fair value basis and establishes a framework for measuring fair value of assets and liabilities and expands disclosures about fair value measurements.

FASB ASC 820-10 requires fair value measurements be classified and disclosed in one of the following three categories:

Level 1: Financial instruments with unadjusted, quoted prices listed on active market exchanges.

Level 2: Financial instruments lacking unadjusted, quoted prices from active market exchanges, including over-the-counter traded financial instruments. The prices for the financial instruments are determined using prices for recently traded financial instruments with similar underlying terms as well as directly or indirectly observable inputs, such as interest rates and yield curves that are observable at commonly quoted intervals.

Level 3: Financial instruments that are not actively traded on a market exchange. This category includes situations where there is little, if any, market activity for the financial instrument. The prices are determined using significant unobservable inputs or valuation techniques.

The Society utilizes quoted market prices to measure fair value when available. If quoted prices are not available, fair values are measured using independent pricing models or other model-based valuation techniques.

The following table summarizes the valuation of the Society's financial instruments by the above pricing categories as of December, 31, 2014:

		Quoted Prices In	Prices With	Prices With
		Active Markets	Other	Unobservable
	Total	(Level 1)	Inputs (Level 2)	Inputs (Level 3)
Assets:				
Investments	\$ 2,287,213	\$ 2,287,213	\$ -	\$ -

AMERICAN SOCIETY OF AGRICULTURAL AND BIOLOGICAL ENGINEERS  
NOTES TO THE FINANCIAL STATEMENTS  
December 31, 2014 and 2013

**NOTE 3. FINANCIAL INSTRUMENTS, CONCLUDED**

The following table summarizes the valuation of the Society's financial instruments by the above pricing categories as of December, 31, 2013:

	Total	Quoted Prices In Active Markets (Level 1)	Prices With Other Observable Inputs (Level 2)	Prices With Unobservable Inputs (Level 3)
Assets:				
Investments	\$ 2,273,810	\$ 2,273,810	\$ -	\$ -

**NOTE 4. INVESTMENTS**

Investments are stated at fair value and consist primarily of stock and bond funds as follows:

December 31, 2014:	Cost	Fair Value	Unrealized Appreciation/ (Depreciation)
Equity Securities	\$ 1,095,763	\$ 1,322,580	\$ 226,817
Fixed Income Securities	805,904	818,560	12,656
Real Estate Funds	78,027	96,645	18,618
Commodities	72,905	49,428	(23,477)
Total Investments	\$ 2,052,599	\$ 2,287,213	\$ 234,614

December 31, 2013:	Cost	Fair Value	Unrealized Appreciation/ (Depreciation)
Equity Securities	\$ 973,448	\$ 1,302,119	\$ 328,671
Fixed Income Securities	753,317	777,367	24,050
Real Estate Funds	100,000	108,561	8,561
Commodities	86,602	85,763	(839)
Total Investments	\$ 1,913,367	\$ 2,273,810	\$ 360,443

The investment returns for 2014 and 2013 are summarized as follows:

	2014	2013
Interest income	\$ 2,073	\$ 2,514
Dividend income	51,113	61,808
Realized gains	174,711	41,652
Unrealized (depreciation) appreciation	(125,829)	131,748
Total Investment Returns	\$ 102,068	\$ 237,722

**NOTE 5. PROPERTY AND EQUIPMENT**

Property and equipment consisted of the following at December 31:

	2014	2013
Land	\$ 32,102	\$ 32,102
Land improvements	59,977	59,977
Buildings	844,060	829,160
Furniture, computer hardware and software	437,901	430,646
Total cost	\$ 1,374,040	\$ 1,351,885
Less accumulated depreciation	1,056,991	1,012,945
Net property and equipment	<u>\$ 317,049</u>	<u>\$ 338,940</u>

For the years ended December 31, 2014 and 2013, the depreciation expense amounted to \$44,046 and \$43,722, respectively.

**NOTE 6. CONCENTRATIONS OF CREDIT RISK**

The Society maintains several bank accounts in several financial institutions. The balances of the accounts that are held at the institutions are insured by the Federal Deposit Insurance Corporation ("FDIC") up to \$250,000. At December 31, 2014, the Society had \$671,980 of deposits in excess of FDIC limits. The Society has not experienced any losses in such accounts. The Society also maintains a foreign bank account in Canada which is insured by the Canada Deposit Insurance Corporation up to \$100,000. As of December 31, 2014 the Society had no uninsured funds held in this Canadian account. In addition to these accounts, at December 31, 2014, \$1,982 was invested in a Northern Trust investment account.

**NOTE 7. INCOME TAXES**

The Society is exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code and therefore has made no provision for federal income taxes in the accompanying financial statements. There was \$44,275 and \$28,444 of unrelated business income for the years ended December 31, 2014 and 2013. Management follows the provisions of FASB ASC 740-10, *Income Taxes*. Under FASB ASC 740-10 an entity must determine whether it is more likely than not that a tax position will be sustained upon examination, including resolution of any appeals or litigation processes, based on technical merits of the position. As of December 31, 2014 and 2013, the Society had no liability due to the uncertainty of income taxes. The Society is no longer subject to U.S. federal income tax examinations by authorities for years before the year ended December 31, 2011.

**NOTE 8. LONG-TERM INVESTMENTS**

In accordance with a policy established by the Society's Board of Trustees, any change in net assets generated by current operations is handled as follows:

- 1) Surplus funds are first applied to scheduled interfund debt.
- 2) Once remaining interfund debt is retired, any remaining surplus is transferred to the long-term investments.
- 3) Losses are reimbursed by the long-term investments to the current operations.

The surplus (deficit) has been transferred to long-term investments and a due from (to) has been reflected in the Society's financial statements in accordance with the above policies. For the years ended December 31, 2014 and 2013, the surplus amounted to \$11,282 and \$9,372, respectively.

**NOTE 9. PENSION PLAN**

The Society sponsors a non-contributory defined contribution pension plan that covers all full-time employees who meet eligibility requirements. Contributions to the plan are based on 6% of covered wages. For the years ended December 31, 2014 and 2013, the pension expense amounted to \$67,984 and \$73,815, respectively.

**NOTE 10. 401(K) SAVINGS PLAN**

The Society has a 401(k) savings plan that covers all employees who are at least 21 years of age and have worked at least 1,000 hours during their first 12 months of employment. The employees may elect to defer up to 15% of their compensation, not to exceed the IRS maximum limits, for which they are 100% vested. The plan also allows a discretionary match by the Society (50% of the first 7% in contributions) for which the employees vest on an escalating scale. The total matching contribution in 2014 and 2013 was \$35,580 and \$27,546.

**NOTE 11. RELATED PARTY**

The A.S.A.B.E. Foundation, (the "Foundation"), is a non-profit corporation formed to provide financial strength for the mission and programs of the Society. The Society provides personnel who perform duties for both entities. The Society was reimbursed \$47,200 in 2014 and \$39,500 in 2013 for administrative services performed by those Society employees. In addition, the Foundation contributed \$92,849 and \$88,166 in 2014 and 2013, respectively, for the annual meeting activities, continuing education speakers, award administration, fellows activities, pre-professional activities, digitizing publications and standards support.





INDEPENDENT AUDITOR'S REPORT ON SUPPLEMENTARY INFORMATION

To the Board of Trustees  
American Society of Agricultural and Biological Engineers

We have audited the financial statements of American Society of Agricultural & Biological Engineers as of and for the years ended December 31, 2014 and 2013, and have issued our report thereon dated March 23, 2015, which contained an unmodified opinion on those financial statements. Our audit was performed for the purpose of forming an opinion on the financial statements as a whole.

The supplementary information listed in the table of contents is presented for the purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

Schaffer & Layher  
St. Joseph, Michigan  
March 23, 2015

David Schaffer, CPA  
Michael Layher, CPA  
*Forming Partners:*  
Morris McMurray, CPA  
Raymond Marks, CPA  
Jeff Edmunds, CPA

## Application for Federal Assistance SF-424

\* 1. Type of Submission:

- ☐ Preapplication  
☒ Application  
☐ Changed/Corrected Application

\* 2. Type of Application:

- ☒ New  
☐ Continuation  
☐ Revision

\* If Revision, select appropriate letter(s):

\* Other (Specify):

\* 3. Date Received:

03/11/2016

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

### 8. APPLICANT INFORMATION:

\* a. Legal Name:

American Society of Agricultural and Biological Engineers

\* b. Employer/Taxpayer Identification Number (EIN/TIN):

38-0298762

\* c. Organizational DUNS:

0697630840000

### d. Address:

\* Street1:

2950 Niles Road

Street2:

\* City:

Saint Joseph

County/Parish:

\* State:

MI: Michigan

Province:

\* Country:

USA: UNITED STATES

\* Zip / Postal Code:

49085-9659

### e. Organizational Unit:

Department Name:

Division Name:

### f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Mr.

\* First Name:

Scott

Middle Name:

Cameron

\* Last Name:

Cedarquist

Suffix:

Title:

Director of Standards

Organizational Affiliation:

American Society of Agricultural and Biological Engineers

\* Telephone Number:

269-932-7031

Fax Number:

269-429-3852

\* Email:

cedarq@asabe.org

## Application for Federal Assistance SF-424

### \* 9. Type of Applicant 1: Select Applicant Type:

M: Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

\* Other (specify):

### \* 10. Name of Federal Agency:

Department of Commerce

### 11. Catalog of Federal Domestic Assistance Number:

11.112

CFDA Title:

Market Development Cooperator Program

### \* 12. Funding Opportunity Number:

ITA-INA-OPCM-2016-2004724

\* Title:

Market Development Cooperator Program 2016

### 13. Competition Identification Number:

2563054

Title:

### 14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

### \* 15. Descriptive Title of Applicant's Project:

U.S. Representation in International Standards Development for Feed Machinery

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

**Application for Federal Assistance SF-424****16. Congressional Districts Of:**\* a. Applicant \* b. Program/Project 

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

**17. Proposed Project:**\* a. Start Date: \* b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="260,112.00"/>
* b. Applicant	<input type="text" value="744,035.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="1,004,147.00"/>

**\* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

**\* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

**21. \*By signing this application, I certify (1) to the statements contained in the list of certifications\*\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\*\* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ \*\* I AGREE

\*\* The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

**Authorized Representative:**

Prefix:  \* First Name:

Middle Name:

\* Last Name:

Suffix:

\* Title: \* Telephone Number:  Fax Number: \* Email: \* Signature of Authorized Representative:  \* Date Signed:

# BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006  
Expiration Date: 01/31/2019

## SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. MDCP	11.112	\$ 0.00	\$ 0.00	\$ 260,112.00	\$ 744,035.00	\$ 1,004,147.00
2.						
3.						
4.						
5. Totals		\$	\$	\$ 260,112.00	\$ 744,035.00	\$ 1,004,147.00

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### SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	MDCP	N/A			
<b>a. Personnel</b>	\$ 0.00	\$ 266,624.00	\$		\$ 266,624.00
<b>b. Fringe Benefits</b>	0.00	79,987.00			79,987.00
<b>c. Travel</b>	207,488.00	93,738.00			301,226.00
<b>d. Equipment</b>	0.00	0.00			
<b>e. Supplies</b>	1,800.00	0.00			1,800.00
<b>f. Contractual</b>	10,124.00	212,400.00			222,524.00
<b>g. Construction</b>	0.00	0.00			
<b>h. Other</b>	40,700.00	0.00			40,700.00
<b>i. Total Direct Charges (sum of 6a-6h)</b>	260,112.00	652,749.00			\$ 912,861.00
<b>j. Indirect Charges</b>		91,286.00			\$ 91,286.00
<b>k. TOTALS (sum of 6i and 6j)</b>	\$ 260,112.00	\$ 744,035.00	\$		\$ 1,004,147.00
<b>7. Program Income</b>	\$	\$	\$	\$	\$

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SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	MDCP	\$ 652,749.00	\$	\$	\$ 652,749.00
9.					
10.					
11.					
12. TOTAL (sum of lines 8-11)		\$ 652,749.00	\$	\$	\$ 652,749.00

SECTION D - FORECASTED CASH NEEDS						
		Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal		\$ 78,922.00	\$ 19,731.00	\$ 19,731.00	\$ 19,730.00	\$ 19,730.00
14. Non-Federal		\$ 155,279.00	38,820.00	38,820.00	38,820.00	38,819.00
15. TOTAL (sum of lines 13 and 14)		\$ 234,201.00	\$ 58,551.00	\$ 58,551.00	\$ 58,550.00	\$ 58,549.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program		FUTURE FUNDING PERIODS (YEARS)			
		(b)First	(c) Second	(d) Third	(e) Fourth
16.	MDCP	\$ 56,888.00	\$ 38,040.00	\$ 48,222.00	\$ 38,040.00
17.					
18.					
19.					
20. TOTAL (sum of lines 16 - 19)		\$ 56,888.00	\$ 38,040.00	\$ 48,222.00	\$ 38,040.00

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: Domestic fringe benefits 30%	22. Indirect Charges: Applied to total direct charges 10%
23. Remarks: For fringe benefits 0%	

## ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

**NOTE:** Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee- 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.



9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.
19. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

<b>SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL</b>	<b>TITLE</b>
Scott Cedarquist	Director of Standards
<b>APPLICANT ORGANIZATION</b>	<b>DATE SUBMITTED</b>
American Society of Agricultural and Biological Engineers	03/11/2016

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## CERTIFICATION REGARDING LOBBYING

Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 28, 'New Restrictions on Lobbying.' The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Commerce determines to award the covered transaction, grant, or cooperative agreement.

**LOBBYING**

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over \$100,000 or a loan or loan guarantee over \$150,000 as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, 'Disclosure Form to Report Lobbying,' in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

**As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification.**

**\* NAME OF APPLICANT**

American Society of Agricultural and Biological Engineers

**\* AWARD NUMBER****\* PROJECT NAME**

U.S. Representation in International Standards Development f

**Prefix:**

Mr.

**\* First Name:**

Scott

**Middle Name:**

Cameron

**\* Last Name:**

Cedarquist

**Suffix:**

**\* Title:** Director of Standards

**\* SIGNATURE:**

Scott Cedarquist

**\* DATE:**

03/11/2016