

April 9, 2020

Mr. Bruce Summers
Administrator
Agricultural Marketing Service
US Department of Agriculture
STOP Code 0201
1400 Independence Avenue, SW
Washington, D.C. 20250-0201

Dear Administrator Summers:

The National Pecan Federation hereby submits a proposal requesting the United States Department of Agriculture, Agricultural Marketing Service, to implement a Research and Promotion Program for Pecans that would involve all domestic producers and all importers of Pecans into the US.

The National Pecan Federation (NPF) represents Pecan growers and Pecan shellers (many of whom are also importers) across the US. The NPF's mission is to promote, protect, and improve business conditions for the Pecan industry by representing and advocating their common interest to our government. The NPF consists of industry organizations across the US including the Western Pecan Growers Association, Oklahoma Pecan Growers Association, Texas Pecan Growers Association, Southeastern Pecan Growers Association, Georgia Pecan Growers Association, and the National Pecan Shellers Association. The NPF Officers and Advisors are shown on Exhibit A. Pecans are an Agricultural Commodity under the Commodity, Promotion, Research and Information Act of 1996 (7 U.S.C. Sections 7411-7425) (Act).

Our proposal is set forth in its entirety in the sections below and the accompanying Exhibits:

A. Industry Analysis.

1. Historical Background

Pecans are indigenous to North America and are the only commercially grown tree nut in the United States that is also indigenous to North America. Pecans were harvested and consumed on a seasonal basis in North America by Native Americans in what is now the United States and Northern Mexico before recorded time. One of the first written records of Pecans in North America came from Desoto, the Spanish explorer, whose exploratory band ate Pecans and commented on them. Pecans thrived in the alluvial bottoms of rivers and other bodies of water in the Ohio, Mississippi, Red River and Rio Grande river systems. Pecans were important as both a seasonal food and a trading currency with Native Americans and became part of the food culture of the

Mid-South, Lower Plains (including Texas) and Northern Mexico for the last several hundred years even as immigration into this area increased the population.

Pecans, related closely in nature to a Hickory trees, were prized by early American botanists and planters and were routinely experimented with by such notable farmers as Presidents George Washington and Thomas Jefferson. In fact, one Pecan tree planted by President Washington at Mount Vernon in Virginia grew there for over 200 years and was only recently removed after exceptional wind damage in 2015. Despite attempts to grow Pecans outside of their native range, Pecans need a long growing season to thrive and so the native range of Pecans or similar climatic zones are where most Pecans are grown.

About 150 years ago, American horticulturalists (notably an African American was the first person history ascribes as doing this scientific work) began to graft scions of different varieties on to different rootstocks and also experimented using different Pecan pollens to propagate new varieties of Pecans. These new varieties are called “improved” varieties as opposed to the wild or “native” Pecans that grow naturally in North America. The improved Pecan varieties were propagated to increase the qualities of the nut (kernel size, taste, color, etc.) and to limit other undesirable conditions of Pecans, most notably the alternate bearing characteristic of Pecans (a biological phenomenon in trees where trees bear heavy and light crops in alternate years) and susceptibility to diseases. The majority of Pecans commercially grown in the world today are improved varieties but in the US there is still a large number of native Pecan trees, perhaps accounting for between six and 12% of the US crop in any year. These native Pecans are mainly grown in the states of Arkansas, Kansas, Louisiana, Mississippi, Missouri, Oklahoma and Texas. Pecans are deciduous, produce only one crop a year (Fall to early Winter in the Northern Hemisphere), can produce a crop for many decades, but even improved varieties are subject to some degree of alternate bearing and other seasonal limitations and weather conditions. In light of these factors, the Pecan crop is best reviewed over a number of years to facilitate accurate understanding of the measurable crop and its trends. This will be discussed in more detail in the Section F text of this proposal and related Exhibits, below.

The US is the largest consumer of Pecans, but very few Pecans are consumed outside of the Southern and Lower Plains states. One of the greatest opportunities for this healthy commodity is to market Pecans more broadly in the US. Until the American Pecan Council’s (APC) recent advertising work (really starting in earnest in 2018) there has never been an organized national marketing of Pecans. As discussed elsewhere in this letter, this is not as robust a marketing program as is needed because the APC cannot assess imported Pecans, which accounts for approximately 39% of the crop sold in the US.

Even though the US consumes a majority of the Pecans grow in the US, the US also exports Pecans to Asia, Canada, Europe and a few smaller markets. The Asian market, primarily a mainland China market, has opened for US producers in the last 15 years. For historical and cultural reasons, the Chinese prefer to purchase inshell Pecans as opposed to kernels. This has allowed US producers to export inshell Pecans directly to China and avoid the US Sheller community since no kernels were needed. The result of this new market has been to increase the prices paid to US producers for Pecans and lower the amount of Pecans available to US Shellers. Predictably, the result of generally higher prices over the past 15 years has been a flurry of planting in the US, Mexico

(where there has been a Pecan crop for more than 30 years), China, South Africa, Australia, Argentina and a few less important locations. Newly planted Pecan trees take between six and ten years to produce a commercially significant crop. As will be discussed later, these new plantings will lead to some dramatic supply/demand imbalances that will significantly disrupt the US Pecan industry in this decade unless addressed.

The last two years have been an oddity for US Pecan producers and have changed the positive trends of the previous decade regarding supply, demand and price of US Pecans. Hurricane Michael significantly reduced the Georgia crop in 2018 and the resulting damage to US supply will take a few years to repair. This will be discussed elsewhere in this proposal. The 2018 and 2019 crop years also saw the affects of the Chinese retaliatory tariffs on Pecans which significantly lowered demand and prices for US Pecans.

Currently, over 99.9% of all Pecans consumed by the US are grown in the US or in Mexico. As discussed later in this letter, the US accounts for approximately 61% of the US supply of Pecans by volume and imported Pecans grown in Mexico account for almost all of the remaining supply. We believe the other Pecan producing countries will consider exporting Pecans to the US in the future, but they are not relevant at this time in understanding the US market. Currently, as noted elsewhere, the Pecans imported into the US pay no assessments to the APC or otherwise for research or promotion of Pecans.

2. General Industry Comments and Attribution of Information Compiled by Experts on the US Pecan Industry

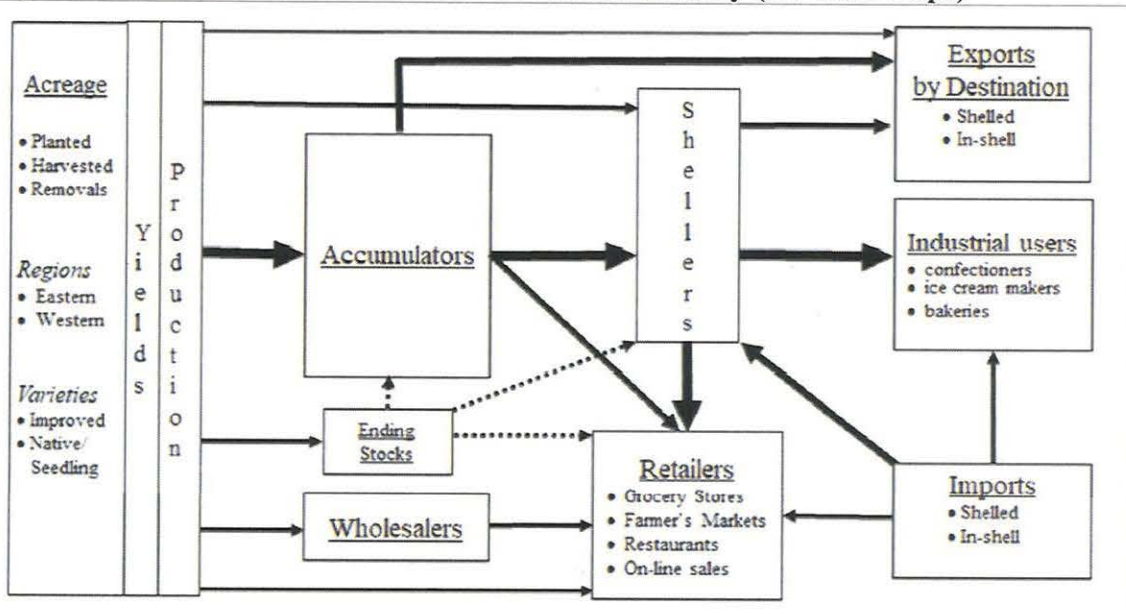
The US Pecan industry is a unique industry and is unlike any other US nut industry. In an effort to better understand the dynamics of the industry, the APC commissioned a research project in conjunction with Texas A&M University in August 2019. Dr. Oral Capps, Jr. Executive Professor and AFCERC Co-Director of Texas A&M University and Dr. Gary W. Williams, Professor and AFCERC Co-Director Texas A&M University conducted and prepared this research titled *Economic Benchmark Model Analysis of the Effects of The Chinese Tariff on the US Pecan Industry*. Part of the research outlines the complexities of the structure of the US Pecan Industry. Below are materials drawn from that research that analyzes the Pecan industry, including the volume, value, geographic distribution of domestic production, the volume, value, countries of origin of imports, and the number of large and small businesses. This research is publicly available on the APC website and Dr. Capps and Williams are relied on as experts elsewhere in this letter under Section F. and Exhibit F.

3. Structure of the US Pecan industry

The structure of the US Pecan industry is complex as depicted in Figure 1. At the left of that figure, Pecan growers across the US plant, remove, and maintain existing Pecan trees and harvest both improved varieties as well as native Pecans. Pecan production is highly variable from year to year due to the alternate bearing behavior of Pecan trees. The consequence is a high degree of year-to-year variability in US Pecan production. The variability in production is transmitted through the supply chain to processing and handling and all the way to end uses and prices.

US Pecan production is divided into two main groups, native and improved varieties. Native Pecans tend to have thicker shells and smaller nuts than improved varieties (Nesbitt, Stein, and Kamas, 2013). The more thin-shelled improved varieties are preferred in commercial use because they are more easily shelled and tend to yield more Pecan meat per pound of inshell nuts. Different Pecan varieties tend to have varying oil content, which affects the texture and flavor of the Pecan kernel (Nesbitt, Stein, and Kamas, 2013). Newly planted Pecan trees will become harvestable in five to eight years and can be productive for 100 years or longer (Call, Gibson, and Kilby, 2006). Profit margins are often more narrow for native Pecans (Nesbitt, Stein, and Kamas, 2010). Managed native Pecan groves tend to produce 500 to 1,000 pounds of nuts per acre per year while improved Pecans can produce from 1,000 pounds to 2,000 pounds per acre per year, each with high yields one year and low the next.

Figure 1. Economic Structure of the US Pecan Industry (No Data Gaps)



US Pecan production was almost equally split between native and improved varieties in the 1940s through the 1960s and 1970s (Figure 2). Since then, however, improved Pecan production has continued to grow while that of native Pecans has declined precipitously. From a high of 164.5 million inshell pounds in 1981 (48.5% of US production), native Pecan production declined by nearly 92% to only 14.5 million inshell pounds in 2018 (6.0% of US production). Over the same period, improved Pecan variety production grew by 20% to 228.5 million inshell pounds, about 94.0% of all US Pecan production. In 2019, the production of both improved and native varieties recovered somewhat to 253.2 million pounds and 27.8 million pounds, respectively. Native Pecan commercial practices are obtuse and the true inshell pounds of native Pecans is unknown and undercounted in most years.

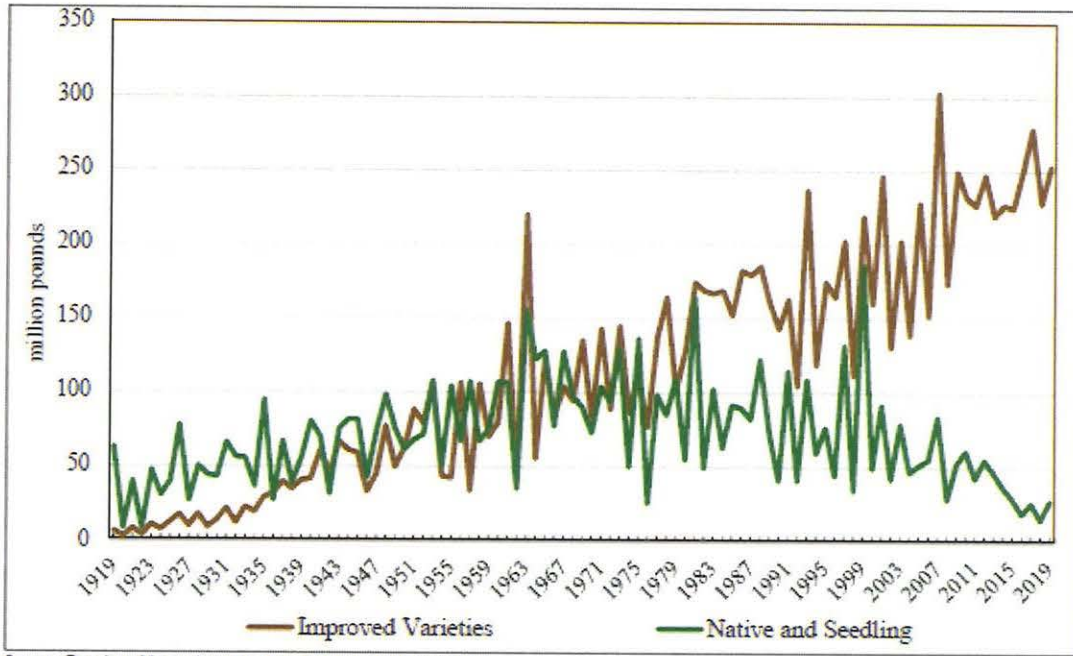
The high degree of year-to-year variability of US Pecan production over the years resulting from the alternate bearing behavior of Pecan trees is evident in Figure 2 for both native and improved varieties and in Figure 3 for all Pecans. Despite the sharp decline in native Pecan production that occurred over time, the growth in improved Pecan variety production more than made up for the

native production decline until the last decade (2009 – 2019). Since 2009, total production has demonstrated little trending and a marked decline in variability, varying between about 250 million pounds and 300 million pounds over that period (Figure 3). The average year-to-year variation in production since 2009 was only about 12% compared to nearly 50% between 1990 and 2008.

Three states accounted for about 76% of US Pecan production (utilized) on average over the last decade, including Georgia (32.9%), New Mexico (26.8%), and Texas (16.4%) (Figure 4). The top five states (including Oklahoma and Arizona) accounted for nearly 90% over that period. As well as having the largest Pecan production, Georgia accounted for the largest share of bearing acreage of any state (29.2%) over 2016 to 2018 followed by Texas (27.3%), Oklahoma (22.5%), New Mexico (10.8%), and Arizona (4.0%), and other states (6.2%) (Figure 5). Although Georgia accounted for the largest bearing acreage and the largest production over that same period, the three states with only improved Pecan production accounted for the highest yields per acre including New Mexico (1,965 pounds), Arizona (1,717 pounds), and Georgia (770.0 pounds) (Figure 6). With improved varieties accounting for 58% of its bearing acreage and native 42%, Texas bearing acres yielded an average of 288.7 pounds per acre over 2016 to 2018. The native share of bearing acreage in Oklahoma is higher than in Texas at about 77% with only 23% in improved varieties. Consequently, the average Pecan yield in Oklahoma was lower at 180.3 pounds per acre over 2016 to 2018.

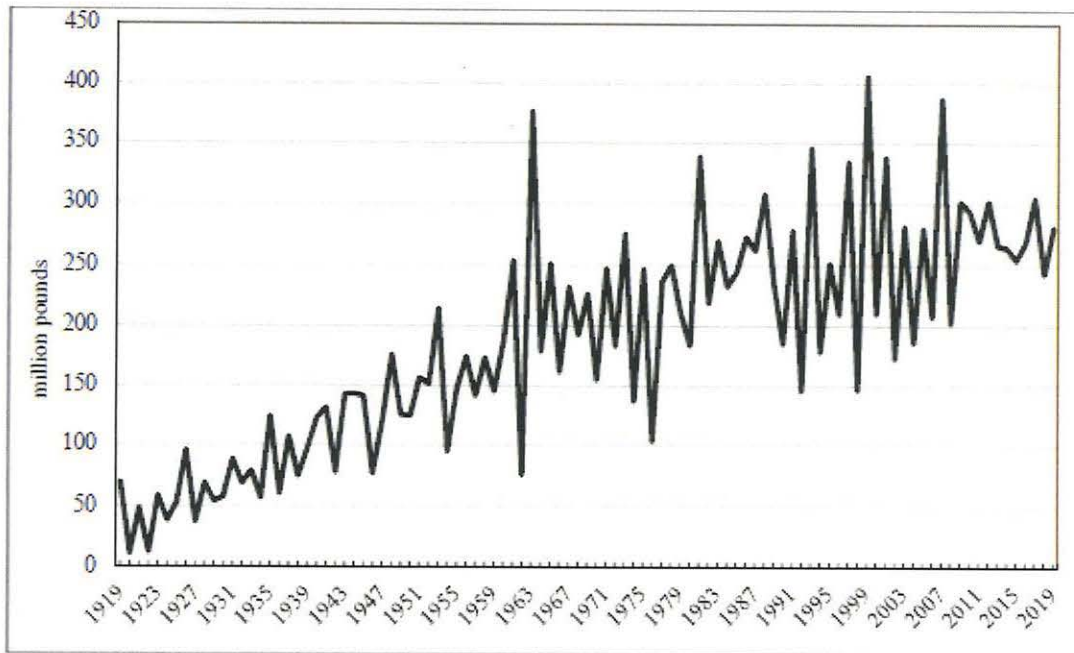
In 2018, US Pecan production dropped by 27.4% to 175 million pounds (see Figure 4). At the same time, US Pecan production value dropped nearly in half (45.5%). Hurricane Michael severely damaged Pecan trees in Georgia, downing trees, breaking tree limbs, and blowing nuts off trees. In addition, USDA reported that wet conditions in the summer months fostered disease issues and limited the harvest of nuts blown off trees (USDA, 2019a). As a result, Georgia's production plunged by 47.6% and its share of US production sank from 35.1% in 2017 to 25.4% in 2018. Dr. Lenny Wells estimated the Georgia crop in 2018 to be 120MM to 125MM pounds immediately before the hurricane (see Section F, and Exhibit E of this letter). Despite a 2% drop in its production, New Mexico became the top US Pecan producing state with 40.7% of the US production in 2018. A steep 42.9% decline in Texas Pecan production that year was reportedly due to a low alternate-year bearing production cycle yield (NASS, 2019b). Oklahoma also suffered a sharp decline in production that year (35.7%), while Arizona experienced a smaller reduction (8.9%).

Figure 2. US Inshell Pecan Production by Type, 1919 – 2019



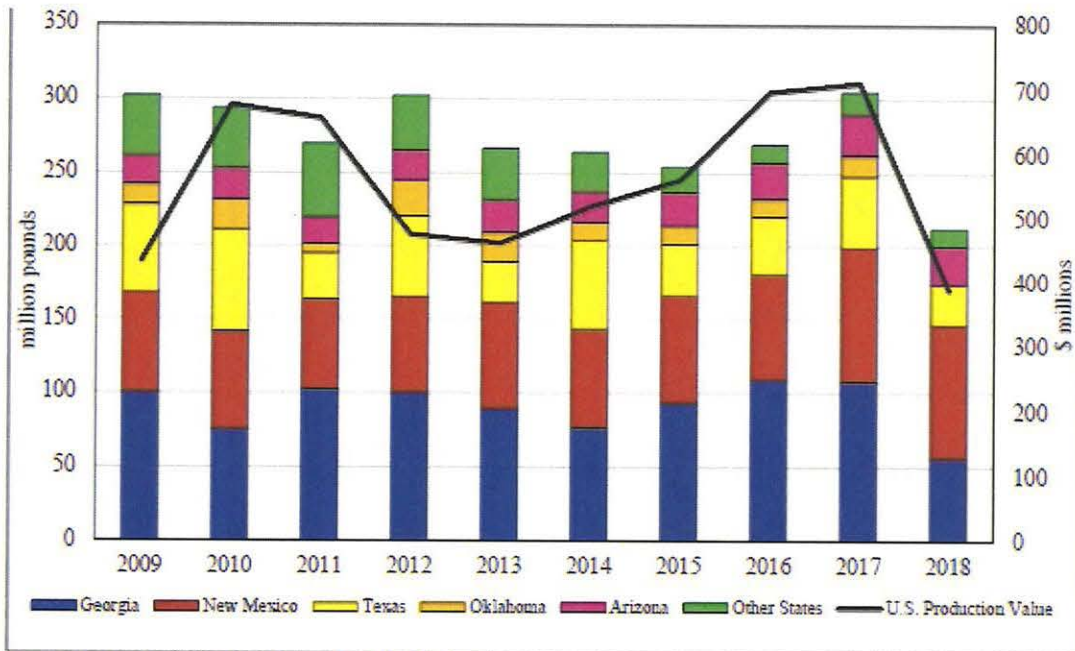
Source: Developed by authors based on data from USDA (2019a).

Figure 3. Total US Inshell Pecan Production, 1919 – 2019



Source: Developed by authors based on data from USDA (2019a).

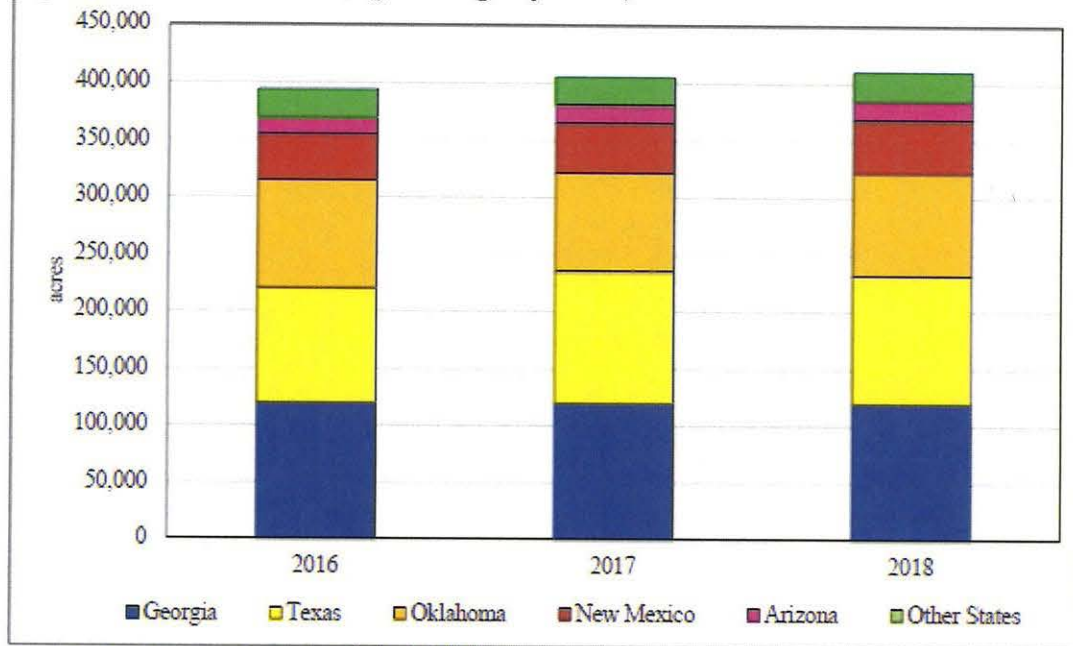
Figure 4. US Inshell Pecan Production by State and Total Production Value, 2009 – 2018



Source: Developed by authors based on data from USDA (2019a).

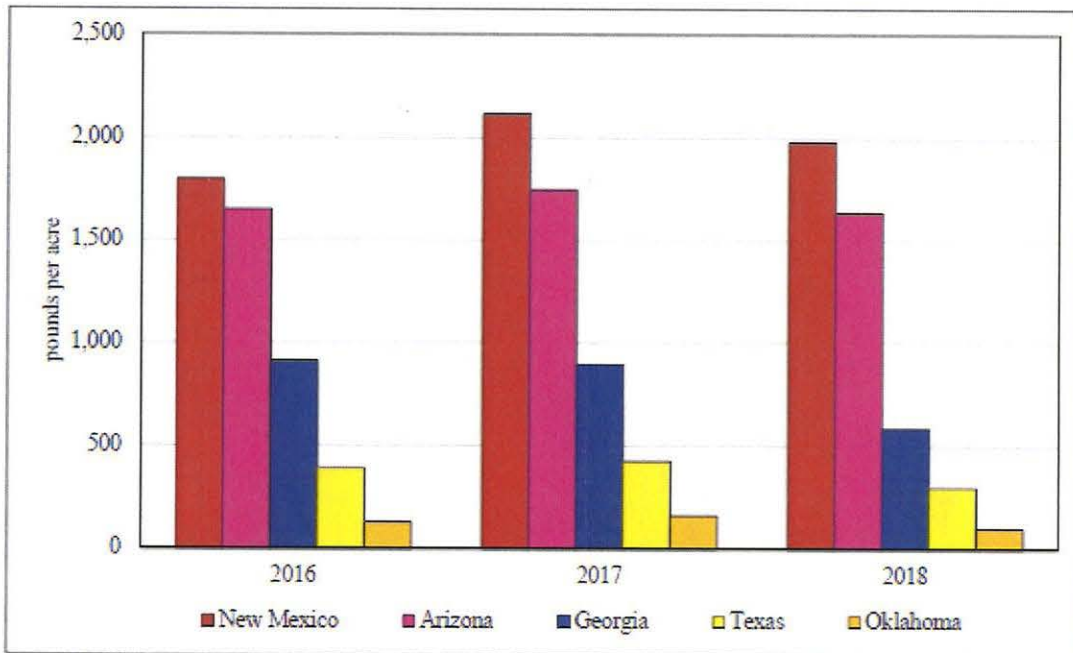
As shown in the center of Figure 1, growers have historically sold the majority of their Pecans to accumulators, companies that act as brokers, selling the nuts to shellers and paying the growers either a cash price or a percentage based on the final price they receive for the crop. In recent years, growers have increasingly diversified their sales portfolio to include wholesalers who sell to various users, direct to shellers or exporters, and even direct to retail destinations such as local farmer's markets and on-line sales. Shellers sell the processed (shelled nuts) to end users both in US markets including industrial users (confectioners, ice cream makers, bakeries, and others), retailers (local, regional, and national food/grocery stores, restaurants, and others) and in foreign markets (China, Hong Kong, Vietnam, Canada, Mexico, and the EU among many others) (right-hand side of Figure 1). Unfortunately, little historical, reliable, or consistent data for most of those activities are available.

Figure 5. US Pecan Bearing Acreage by State, 2016 – 2019



Source: Developed by authors based on data from USDA (2019a).

Figure 6. US Pecan Yields by State, 2016 – 2019



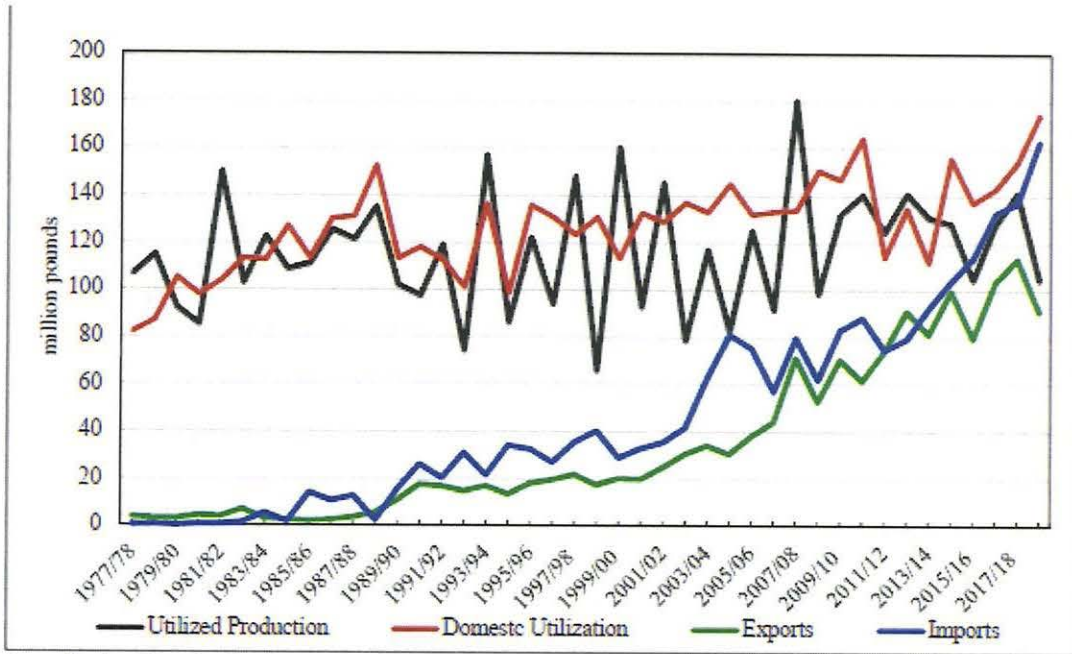
Source: Developed by authors based on data from USDA (2019a).

The domestic utilization of Pecans across all end users (retailers and industrial users as shown in Figure 1) has varied substantially over the years with major peaks since 1980/81 occurring in 1988/89 (152.6 million pounds), 2010/11 (164.5 million pounds), 2014/15 (155.9 million pounds), and 2018/19 (174.5 million pounds) (Figure 7). Major lows over that period occurred in 1980/81 (97.8 million pounds), 1992/93 (101.3 million pounds), 1994/95 (98.8 million pounds), 2011/12 (114.0 million pounds), and 2013/14 (111.8 million pounds). Domestic utilization has exhibited a generally upward trend over the last decade, however, from an average of 120.2 million pounds in the 1980s to an average of 143.3 million pounds since 2010/11, an increase of 19.2%. Nevertheless, per capita consumption has varied little over that period, remaining between about 0.40 pounds and 0.50 pounds (Figure 8). Since the low of 111.8 million pounds in 2013/14, US Pecan consumption grew by half (56.1%) to a record 174.5 million pounds last year, despite the sharp drop in domestic production that year (Figure 7). The record consumption in 2018/19 was likely facilitated by several factors: (1) a 24.9% decline in the inshell price of Pecans, (2) an associated 19.8% reduction of Pecan exports, (3) an increase in imports of 18.9% to a record 163 million pounds, and (4) other factors such as the effect of Pecan promotion efforts under the auspices of the APC. While generally considered a negative factor in US Pecan markets, the Chinese tariff increase nevertheless was well-timed to reduce export demand in 2018/19 when domestic production was at its lowest level since 2006/07.

With growing demand from both export markets and domestic users and lack of growth in domestic production, shellers and other domestic users have increasingly turned to imports, almost all from Mexico, to meet domestic supply needs (bottom right corner of Figure 1). Imports account for approximately 39% of all US supply during the last decade. (See Exhibit F for a discussion of the countries of origin of imports including volume and value.) Imports have exceeded exports in most years over the last several decades. Nevertheless, exports have grown in importance as an outlet for US Pecans (top right corner of Figure 1). As a share of the total utilization of Pecans, exports have increased from around 10% in the mid-1990s to over 30% in most years since 2011/12 given the general lack of growth in domestic utilization (Figure 7). A combination of the increased tariff on US Pecan imports into China and the production drop in 2018/19 helped reduce the export share of total utilization that year to only 26% (Figure 7).

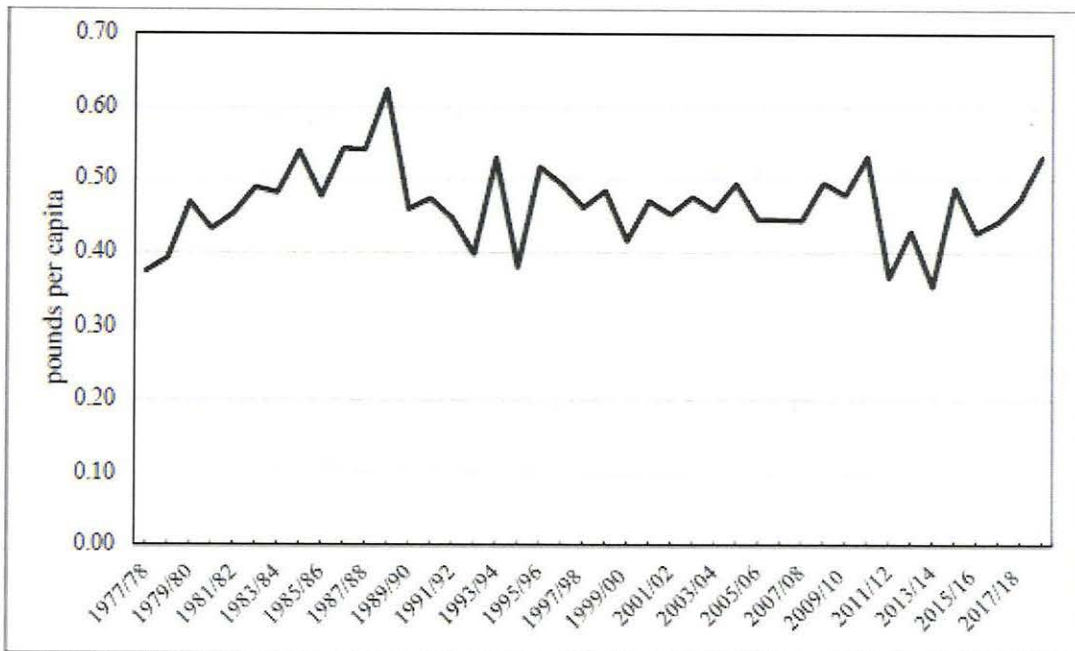
Although the United States exports Pecans to numerous countries, generally 75% to 80% have been exported to two groups of countries over the last decade: (1) China, Vietnam, and Hong Kong (CVH) and (2) Mexico (Figure 9). Until last year, CVH accounted for 50% -60% of US Pecan exports and Mexico for 20% -25%. Almost all of the Pecans exported to Mexico are shelled in Mexico and returned to the United States as shelled Pecan kernels or meats for the US market. Hong Kong has been the largest export market for US Pecans although much of the Pecans are transshipped to China. The same is likely the case for Vietnam. Because the extent of transshipments to China through Hong Kong and Vietnam is not known, the export volumes for the three countries are added together as a single importing group in Figure 9. With the drop in US Pecan supplies available for export in 2018/19 and the increase in the Chinese tariff on US Pecans, exports to CVH dropped from 76.8 million pounds in 2017/18 to just 16 million pounds in 2018/19, a drop of nearly 80%. Other major countries importing US Pecans (with 2018/19 percentages of total imports) include the Netherlands (11.6%), Canada (10.7%), Israel (5.2%), United Kingdom (4.8%), France (2.2%), and Japan (0.8%) (Figure 9).

Figure 7. US Pecan Supply and Utilization (Shelled Basis), 1980/81 – 2018/19



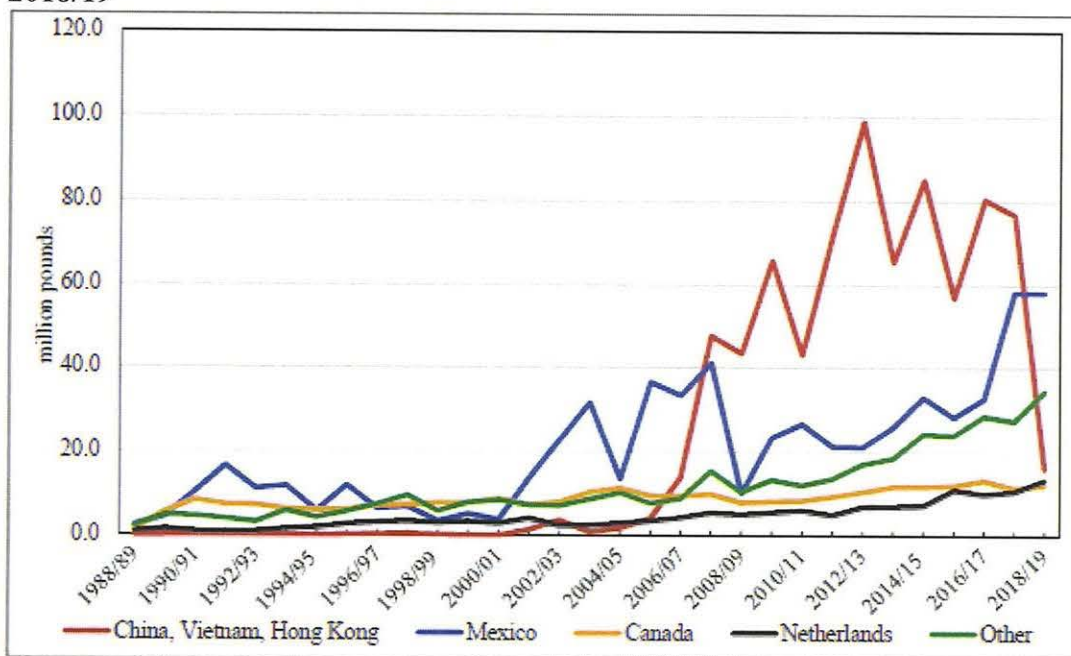
Source: Developed by authors based on data from USDA (2019b).

Figure 8. US Per Capita Consumption of Pecans (Shelled Basis), 1977/78 – 2018/19



Source: Developed by authors based on data from USDA (2019b).

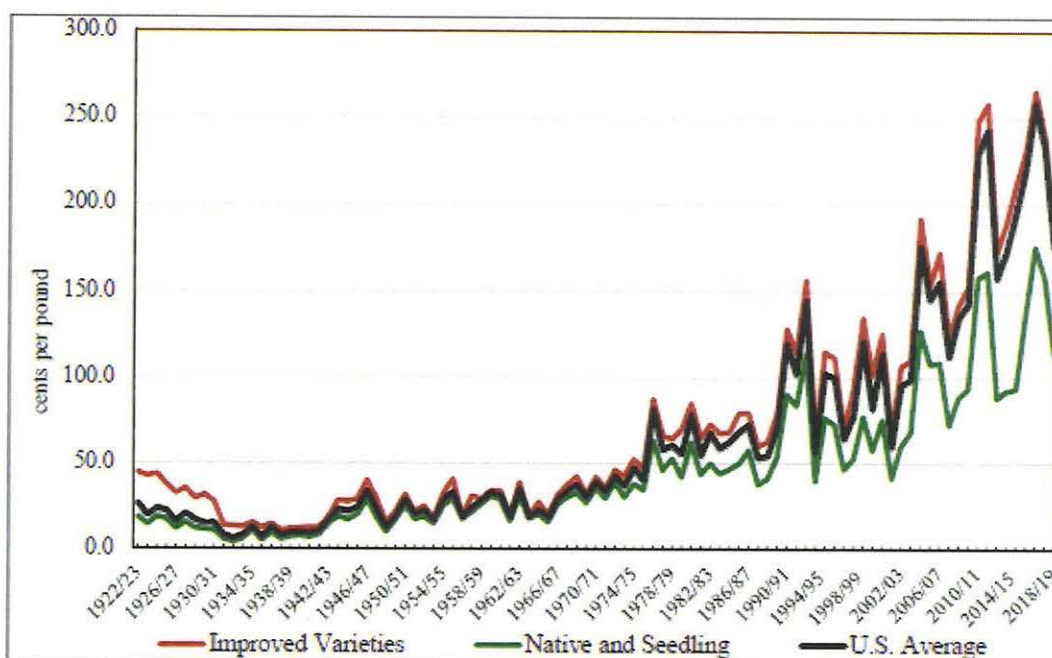
Figure 9. US Pecan Exports by Country (Shelled Basis), 1988/89 – 2018/19



Source: Developed by authors based on data from USDA (2019c).

Although Figure 1 depicts the flow of Pecans from production to end use, along with that flow are prices at each point along the value chain. At the production end are prices received by producers (inshell) for native and improved varieties from each state (Figure 10). From an average of 98.5 cents/pound in the 1990s, the US price of all Pecans increased to an average of 206.0 cents/pound over the last decade (2009-2018) with an all-time high of 259.0 cents/pound in 2016. Improved variety prices have been above the average while prices of native Pecans have traded at levels below the average. As the production of native Pecans has declined over time, the average US price and the price of improved varieties have become nearly the same.

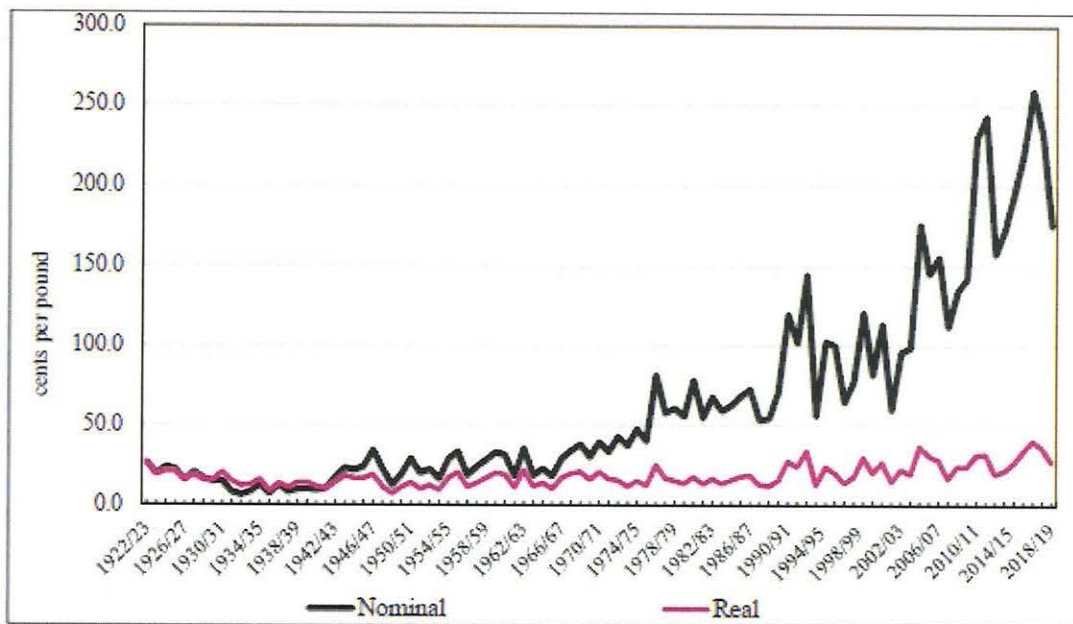
Figure 10. Pecan Prices (Inshell) Received by Producers by Type, 1922/23 – 2018/19



Source: Developed by authors based on data from USDA (2019b).

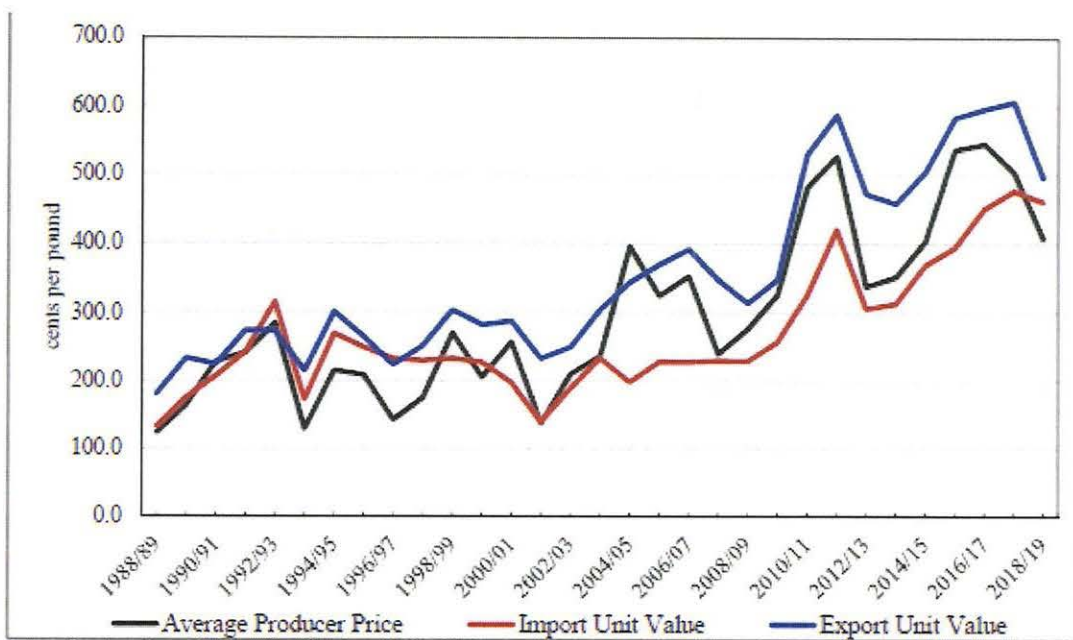
Few other reliable, consistently available prices for Pecans over a sufficiently long period of time to support empirical analysis are available at any level of the value chain. The Agricultural Marketing Service of USDA collects prices at various US terminals (USDA 2019d). Those data are available only back to 1998 and are not well correlated with farm prices. Export prices and import prices for Pecans are not available either. As proxies for those prices, export and import unit values can be calculated from export and import volume and value data (Figure 12). The Pecan export unit value has been consistently higher than and closely correlated with the average US Pecan price received by producers on a shelled basis over time. The Pecan import unit value (shelled basis) has been consistently lower than but still highly correlated with the producer price. While the producer price and the export unit value declined in 2018/19, the import unit value declined by less. In fact, the import unit value in 2018/19 was above the US producer price for the first time since 2001/02 and approached the export unit value of US Pecans. Some of the support for the import price of Pecans likely resulted from the demand by shellers and processors for imports to meet domestic Pecan demand in a low domestic production year. However, some of the support may be due to Chinese demand for Mexican Pecans as China's Pecan buyers shifted their purchasing habits to Mexico in the face of the increased cost to them of US Pecans due to the 47% tariff placed by the Chinese government on imports of US Pecans. According to one report, Mexico's Pecan exports to China increased by more than 3,000% in 2018 relative to the previous year (Produce Report, 2019). Mexican Pecan exports to China are assessed only the 7% most favored nation (MFN) tariff.

Figure 11. Nominal and Inflation-Adjusted (1922=100) Pecan Price Received by Farmers (Inshell), 1922/23 – 2018/19



Source: Developed by authors based on data from USDA (2019b) and USDL (2019).

Figure 12. Pecan Prices (Shelled Basis): Producer, Export, and Import, 1988/89 – 2018/19

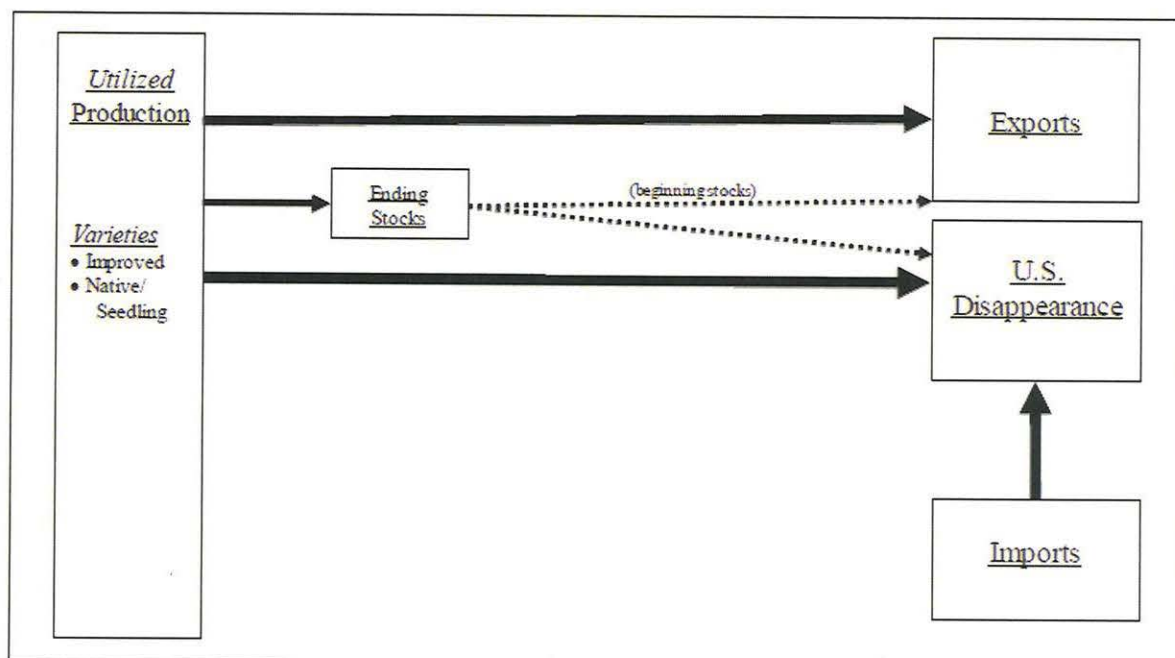


Source: Developed by authors based on data from USDA (2019b,c).

The preceding discussion demonstrates that while data related to the Pecan industry is available, much data needed to characterize many critical activities in the US Pecan industry as depicted in Figure 1 are not available. Missing are historical, consistent, and reliable data on, for example, acreage planted and harvested, and trees removed (removals) by Pecan variety or even by native and improved types, purchases by accumulators, wholesalers, and shellers, purchases by various retailers by type or as a group, purchases by various industrial users by type or as a group, and exports to specifically identified destinations. Price data associated with most of those activities also are not available for analysis. USDA has begun to collect data on Pecan acreage and yield. However, given the long lag between the year when a Pecan tree is planted and when that tree begins to produce, many years of acreage and yield data will need to be collected before those data are useful for empirical analysis. In addition, some of the available data is not useful or reliable for analysis such as exports by destination and terminal prices. Other available data is not specific as to type, such as domestic utilization for which there is no breakdown by retail or industrial uses.

If we strip all activities of the Pecan industry out of Figure 1 for which historical, consistent, and reliable quantity and price data are not available, then Figure 1 devolves to Figure 13. The result is a simplified depiction of the Pecan industry. Note that much of what happens along the industry value chain between production and final utilization is missing from the picture. Major components of this smaller, more data-supported economic structure of the US Pecan industry include primarily utilized production (by improved and native/seedling varieties) and imports (by country of origin) on the supply side and ending stocks, US disappearance, and exports on the demand side. Export data does not support an analysis of foreign demand by China specifically. Domestic utilization data does not support anything more than a crude analysis of total use other than exports and ending stocks. The proposed research and development program should help fill out some of the domestic data points that we need to understand the industry more comprehensively and grow the value and domestic consumption of the crop.

Figure 13. Reduced Data-Supported Economic Structure of the US Pecan Industry Due to Data Gaps



4. Additional Acreage Data and Number of Large and Small Businesses

In addition to the work conducted by Texas A&M University, The APC has contracted with Land IQ to get satellite mapping data. This project is divided into two phases. The first phase mapped the eight major states of Pecan production. These states included: Georgia, Texas, New Mexico, Arizona, Alabama, Louisiana, Oklahoma, and California. Phase two requires the mapping of the other seven states and an update on Georgia acreage post Hurricane Michael.

Although USDA NASS does an acreage survey, Land IQ satellite maps the acreage, providing more specific, accurate, and detailed information. As shown in the figure below, satellite mapping has noticed a significant disparity between USDA's NASS numbers and actual satellite mapping numbers. As demonstrated in Figure 14, Land IQ points out the difference between actual satellite mapping acreage and USDA's figures.

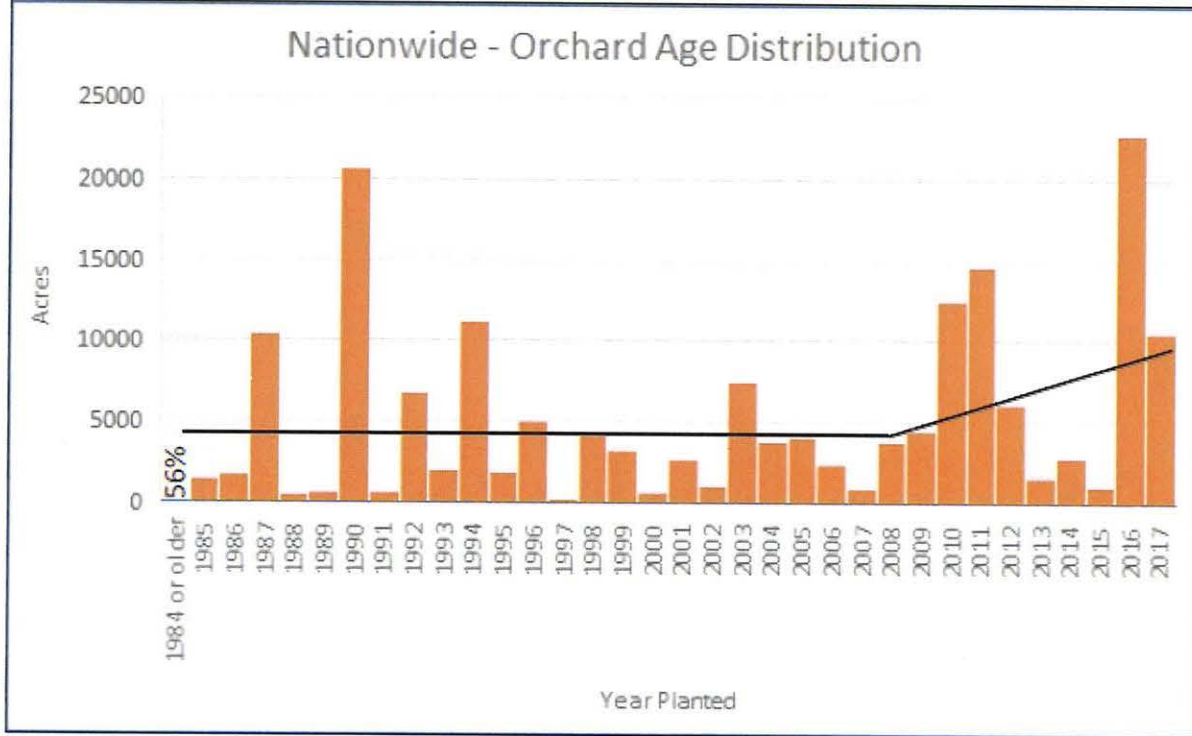
Figure 14. Differences Between USDA and Land IQ

| | 2017 | 2018 |
|---------------------------------------|----------|---------|
| USDA-NASS – (improved & native) | 404,800 | 409,900 |
| Land IQ – (improved) | 392,725 | TBD |
| Land IQ – (native - average of range) | 136,500 | TBD |
| Land IQ – (total) | 528,225 | TBD |
| Difference – (Land IQ greater) | +123,425 | TBD |

This additional information available in the future may inform and increase the accuracy of the Pecan volume numbers available.

Additionally, nationwide orchard age distribution has been mapped. Specifically, 56% of the eight states that have been mapped have trees planted prior to 1984. However, acreage has seen increases in planting beginning in 2009 through today as demonstrated in Figure 15.

Figure 15. Nationwide – Orchard Age Distribution



In short, although only eight of the 15 states have been completed, significant plantings of Pecans have taken place in the last ten years, showing that additional Pecans will be forthcoming into the market place from US producers in the very near future.

Through Land IQ mapping the Pecan industry is developing a better understanding of the number of farms in the US and their relative sizes, which, through extrapolation will increase the industry’s understanding of large and small farms in the US. From APC data, we believe that there are approximately 4,300 US producers that would be subject to assessment under this proposed program, (an average of more than 50,000 pounds of inshell Pecans this year and the previous three (3) years). As set forth in more detail in Section D, below, farms over 291 acres are not small agricultural growers. There is no precise governmental data and Land IQ will not have the remaining data the industry needs regarding size and productivity of US producers for several years. It is estimated that there are approximately 250 handlers (who may also be importers) in the US, and of these, approximately 239 are small business handlers and importers, see Section D below.

5. Additional Supply Information

Currently, the global trade flow is driven primarily by Mexico and the United States (Figure 16). However, global plantings are increasing too and there is a significant increase of Pecan supply anticipated from South Africa and China during the next eight years, see figure 17. Due to these increases, it is projected that global production will increase from 680 million pounds in 2017 to a project 1.2 billion pounds in 2027.

Figure 16. Trade: Current Global Trade Flows Are Mainly Driven by US and Mexico

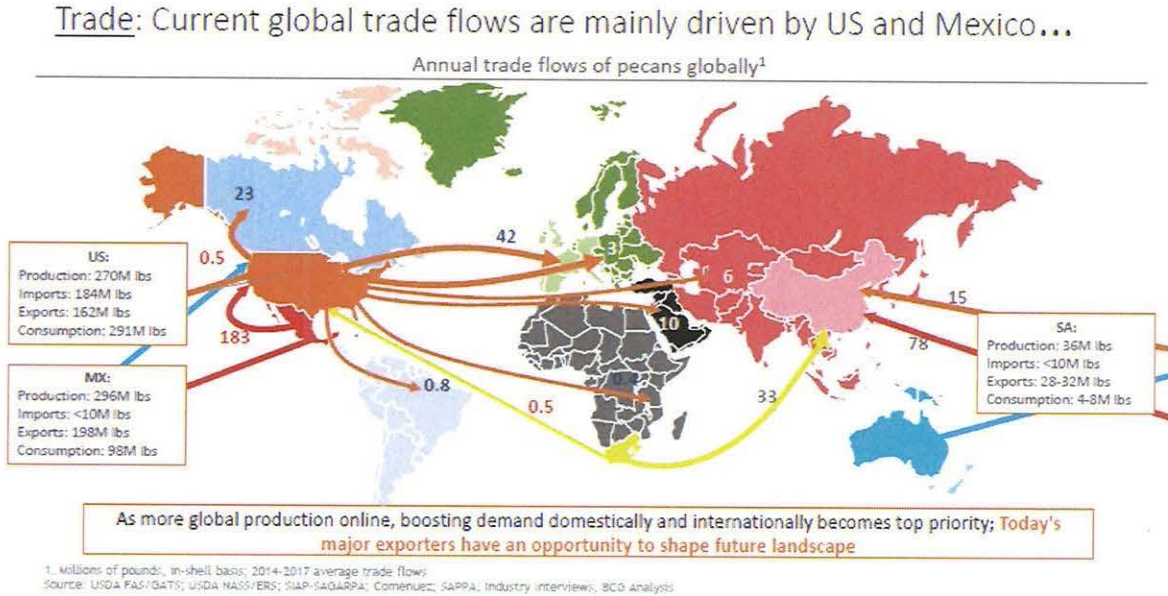
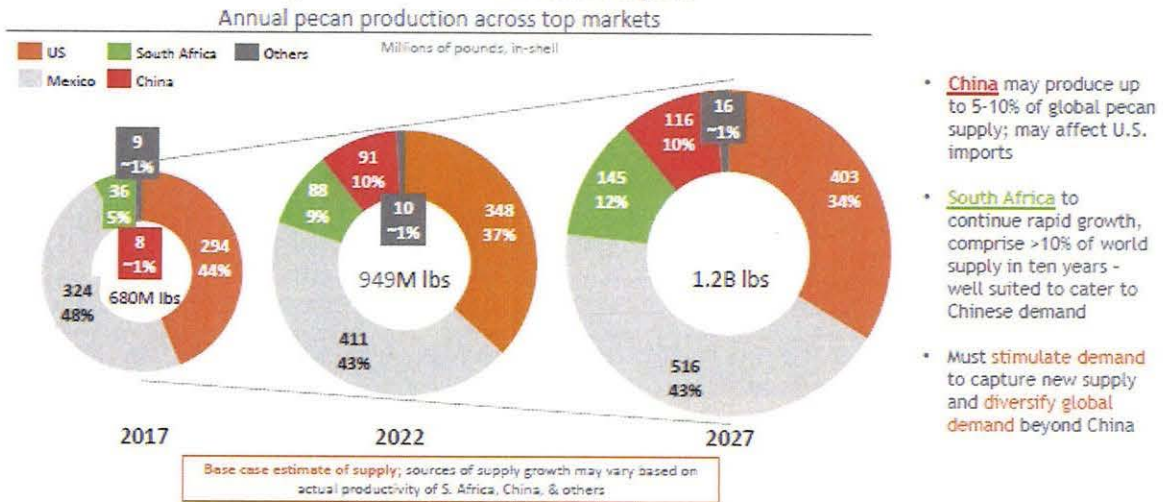


Figure 17. Significant Supply Coming Online from South Africa & China

Significant supply coming online from S. Africa & China, and if no corresponding change to consumer demand, market will be hit with surplus

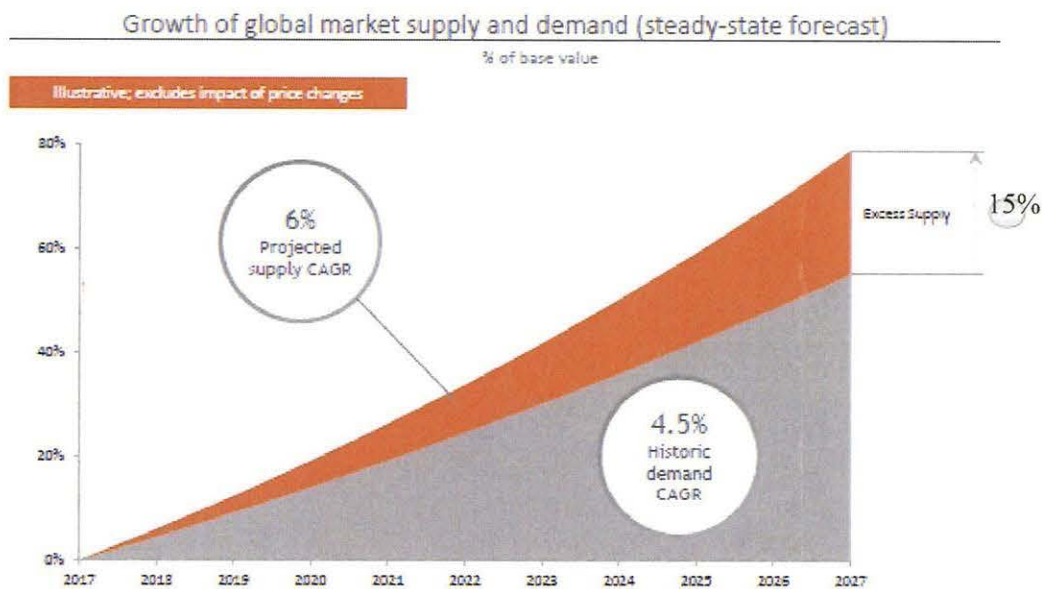


B. Justification.

The greatest challenge to the Pecan industry in the US is the impending worldwide supply/demand imbalance that we are headed for this decade. In the graph shown below, Figure 18, Boston Consulting Group (BRG), a worldwide leader in business consulting, concluded that based on their research of the worldwide planting and crop data, that in 2027, the supply of Pecans would exceed the demand for Pecans by 15%. This would be a disastrous result for all of the participants in the Pecan industry and would affect thousands of producers (mainly family farms in the US) importers (many of whom are small to medium sized businesses in the US as well as foreign entities) as well as thousands of jobs that service the producers, importers and others in this industry. In essence, BRG concludes that the only avoidance of this is to increase demand for Pecans. The Pecan industry's greatest challenge is a marketing problem that can be met only a National research and promotion program that includes importers as well as producers.

Figure 18. Supply/Demand Imbalance Threatening the Pecan Industry

Context: At current rates, global pecan supply will exceed demand by 15% in ten years



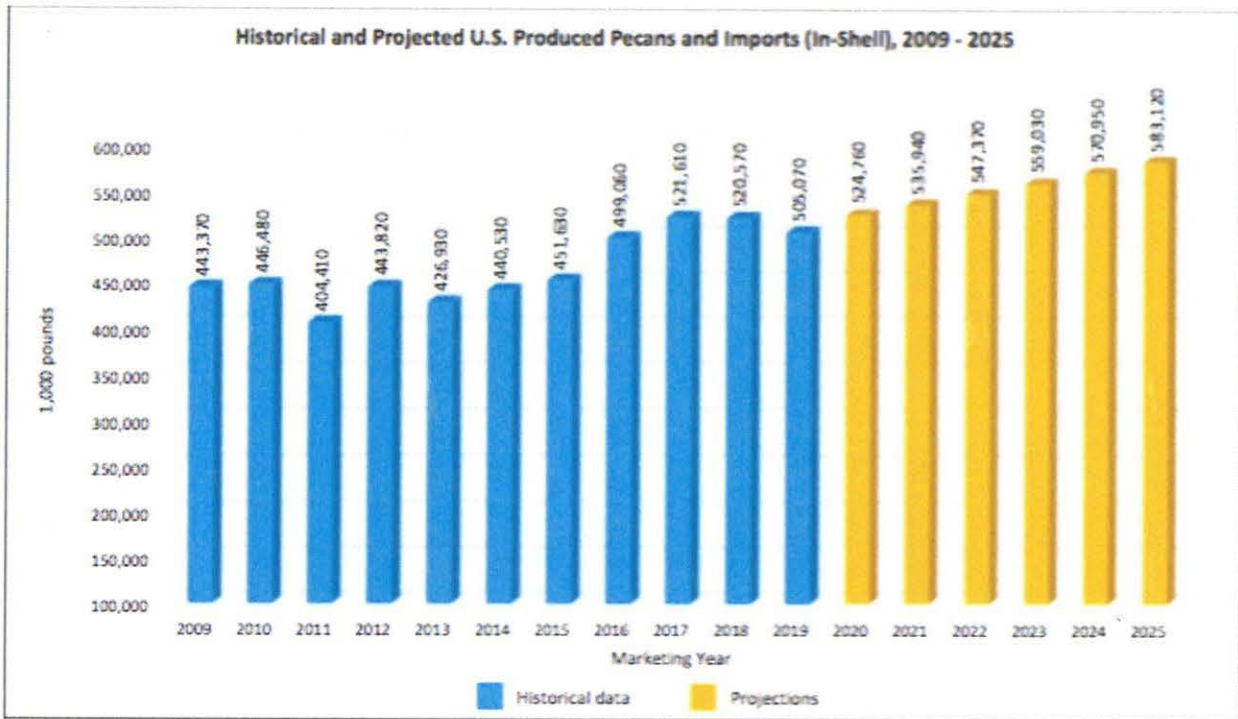
Source: USDA FAS/GATS; USDA NASS/ERS; SIAP-SAGARPA; Comenuez; SAPP; Industry Interviews; Stakeholder survey; INC Statistical Yearbook
Forecasting does not account for cyclical nature of crop, or loss of production capacity due to Hurricane Michael; should be viewed as approximation.

The findings of the US Congress in the Act (See 7 U.S.C. Section 7411 (a)) and every academic and marketing study we have examined agree that generic promotion creates increased demand for agricultural commodities, such as Pecans. Since the Pecan industry does not control price, product allocation, or supply, the only tool the Pecan industry has to meet its supply/demand imbalance challenges is to affect demand.

The heart of the problem is that the Pecan industry is gravely concerned that it cannot meet the supply/demand imbalance challenges without assessments from both the US grown Pecans and imported Pecans. This is a goal of the NPF, to establish a National research and promotion program for Pecans as outlined in the attached Proposal (see Section F, and Exhibit C, below) that will allow the Pecan industry to equally assess all US grown and imported Pecans. The NPF considered amending the Agricultural Marketing Agreement Act of 1937, but rejected this alternative because of the time and costs involved in changing US law, and the availability of the proposed program under the Act.

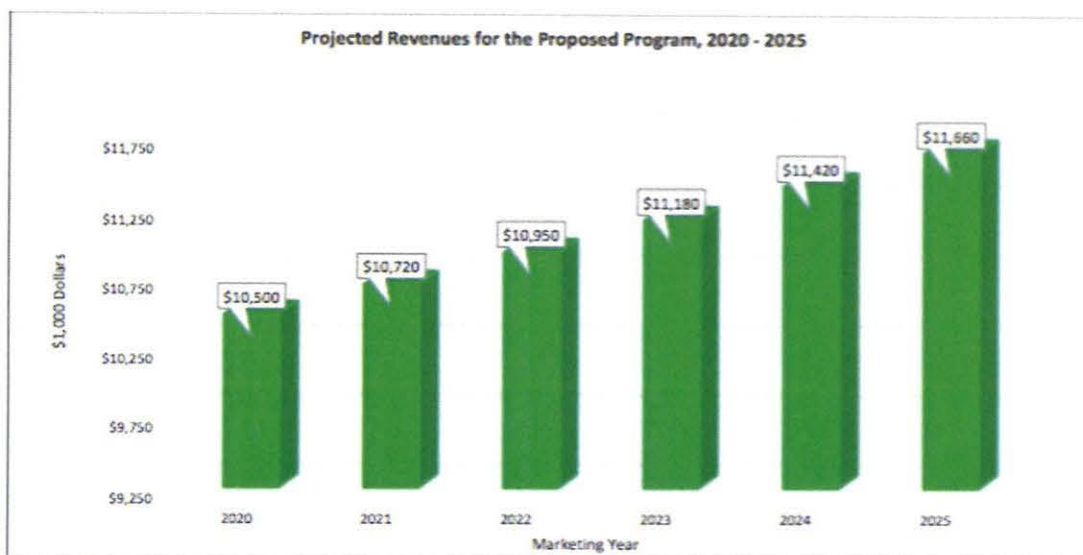
The APC, referred to earlier, is an entity formed under the authority of a USDA Federal Marketing Order and was established in 2015 - 2016. Due to limitations in the Agricultural Marketing Agreement Act of 1937, the governing law for the APC, the APC cannot require assessments of handlers/importers of Pecans imported into the US. This has required the APC and the US handlers and growers to fund the generic promotion of US grown Pecans AND the promotion of imported Pecans, all without any assessments paid by importers of Pecans imported and sold in the US.

Figure 19. Historical and Projected U.S. Produced Pecans and Imports (Inshell), 2009-2025



Note: The total is defined as net imports from Mexico plus U.S. utilized production.
 Note: Projections are based on an Exponential Trend Model.
 Source: Historical data for net imports from the Foreign Agricultural Service; historical data for U.S. production from the National Agricultural Statistics Service.

Figure 20. Projected Revenues for the Proposed Program, 2020-2025



Note: Based on \$0.02 per in-shell pound.

The NPF agrees, as does the industry as a whole, that the APC will still have an important continuing role in fulfilling its authorities and duties even after the requested research and promotion program for Pecans is established by the USDA.

Based on the projections of the US Pecan crops and the imported Pecan crops over the past 10 years and projections for next five (5) years (see Figure 19), the gross income for the proposed research and promotion program would be between \$10,495,150 and \$11,662,347 per year (@ \$.02 per inshell lb.) (See Figure 20) This could provide approximately \$90MM to \$94MM to counteract the supply/demand imbalance challenge before 2027, assuming we can get this proposed program in place before the 2020-2021 crop year starting in October of 2020.

We do not believe the expenses of administering the program and complying with the law and in reimbursing the USDA for its expenses will approach 15% of the revenue in any one year, as discussed below. The proposed research and promotion program would reduce the amount for research and promotion money available from the APC but would, on both a gross and net basis, increase the total amount of research and promotion money available from the Pecan industry by approximately 40% per year. This is an amount of money that could make a real difference in marketing the industry's way out of the impending supply/demand imbalance and is a sufficient amount to run an effective research and promotion program.

In determining the cost of administering the proposed program, we have looked at the likely governmental charges (user fees) and the other administrative costs (other costs). The user fees and other costs for other USDA Research and Promotion Programs with comparable annual revenues of between approximately \$7MM and \$15MM for the past two years are shown below in Figure 21. Figure 21 shows that over the past two years the average user fees are approximately \$143,000 per year, and the other costs are approximately \$1,045,117 per year.

Figure 21. User Fees and Other Costs for other USDA Research and Promotion Programs with Revenue of Between \$7MM and \$15MM per year, Similar to the Proposed Program

| Board | 2019 Total Expenses | 2019 Administrative Expenses | 2019 AMS Fees | 2020 Total Expenses | 2020 Administrative Expenses | 2020 AMS Fees |
|-----------------|---------------------|------------------------------|---------------|---------------------|------------------------------|---------------|
| Blueberry | \$ 11,161,749 | \$ 1,155,671 | \$ 110,000 | \$ 12,711,766 | \$ 1,839,771 | \$ 110,000 |
| Honey | \$ 7,891,424 | \$ 623,174 | \$ 120,000 | \$ 7,562,700 | \$ 612,166 | \$ 120,000 |
| Mangos | \$ 9,168,675 | \$ 977,145 | \$ 180,000 | \$ 10,007,061 | \$ 1,071,242 | \$ 180,000 |
| Peanuts | \$ 11,923,906 | \$ 869,500 | \$ 220,000 | \$ 10,561,933 | \$ 887,500 | \$ 190,000 |
| Softwood Lumber | \$ 14,050,555 | \$ 1,200,000 | \$ 180,000 | \$ 15,042,488 | \$ 1,225,000 | \$ 200,000 |

In summary, the estimated cost of running the proposed program using the averages from the data in Figure 21 would be approximately \$1,188,117 per year (\$143,000 user fees and \$1,045,117 other costs). This figure is 11.3% of the lowest revenue amount we project per year, see Figure 20, well below the limitations of the Act. In the first fiscal year of the proposed program, after all user fees and other costs, approximately \$9,311,883 would be available for research and promotion. This amount of funding would be sufficient to conduct an effective research and promotion program.

C. Objectives of the Program.

The objectives of the proposed research and promotion program are:

- 1) Strengthening the Pecan industry in the marketplace by increasing demand through a National generic promotion program that assesses both US grown and imported Pecans in order to rebalance the supply/demand of Pecans that is predicted in the near future;
- 2) Increasing the total amount of Pecan industry assessments in order to maintain and expand existing domestic and foreign markets and to develop new markets and uses for Pecans;
- 3) Increasing the price paid to US producers and importers for Pecans, as demand for Pecans is increased through research and promotion;
- 4) Consolidating and increasing the promotion efforts of the Pecan industry;
- 5) Coordinating and increasing the research efforts of the Pecan industry by increasing their funding through a National program that assesses both US produced and imported Pecans;
- 6) Improving the Pecan industry's efficiency in reaching its goals through improved data collection and dissemination of this data among other Pecan organizations (particularly the APC, land grant universities and other commodity statisticians) and the USDA;
- 7) Keeping program administrative costs low in order to fund as much research and promotion as is possible, with industry assessments; and
- 8) Rectifying an unfairness to US producers and handlers who have had to bear the burden of marketing imported Pecans in the US.

D. Impact on Small Business.

The proposed research and promotion program for Pecans will mandate US Pecan producers, mainly through first handlers, and Pecan importers, mainly through the U.S. Customs Control and Border Protection (CBP) to submit assessments based on inshell pounds produced in the US or imported into the US (shelled Pecans would be considered twice their volume to equate to inshell Pecans). Reporting to the proposed program will follow procedures set in place similar to those of the APC. Pecan producers, first handlers and importers will be mandated to file reports and submit payments to the new program. Most importer information will also be reported by the CBP, along with importer assessments. The APC currently collects assessments and reporting data from handlers. Handlers of Pecans submit assessments based on inshell pounds handled. Handlers will be mandated to collect assessments from producers and file reports and pay assessments to the new program on the producer's behalf.

Small agricultural growers are defined by the Small Business Administration (SBA) as those having annual receipts of less than \$1,000,000. Small agricultural service firms (handlers and importers under the proposed program) are defined as those having annual receipts of less than \$30,000,000.

US Pecan producer data for the past decade, as provided by Drs. Capps and Williams (shown in Figure 10 and the related discussion) estimates season average grower prices per pound for both improved and native seedling Pecans are \$2.06. From data received from public testimony at the APC's public hearings, the average yield on the representative farm is 1,666.67 pounds per acre across the US. Multiplying the \$2.06 price by the average yield gives a total revenue per acre figure of \$3,433. Dividing the \$1,000,000 SBA annual small business threshold figure by the revenue per acre figure of \$3,433 gives an estimate of 291 acres or less as the size of farms that would have annual sales of \$1,000,000 or less.

A high percentage of the small farms in the US would not be affected by the proposed program because their farms do not yield 50,000 pounds on average in the current year and the three previous years. Using the numbers above, a small farm below 30 acres would not be affected by the assessments of this program at all ($50,000 / 1,666 = 30$). These farms would pay no money in assessments and therefore have no costs. But small tree nut farmers of between 30 and 291 acres would have a small compliance cost if their paperwork is not completed by a first handler, this is predicted to be a very small group. Therefore, the number of small farm businesses affected by these requests is very small and the costs (see discussion below) if they were required to file, would not be a disproportionate burden for small tree nut farmers.

According to APC data there are an estimated 250 handlers in the US and of these 250 handlers, it is estimated that 51 handlers import Pecans. Of these handlers, which include accumulators, 11 of these handlers meet the SBA definition for large business entities and the remaining are small business entities. Therefore, there are approximately 239 handlers that are small business entities subject to the proposed program.

In order to simplify the assessment collection program of US producers, the proposed program will work with the current assessment structure developed for handlers by the APC. The APC

may be designated as a collection agent of the new program through a contract to be drafted for use between the two USDA programs. If no contract is reached with the APC, the proposed program would develop similar forms and a similar collection procedure for US producers/handlers and importers. Most importer assessments will be paid to CBP and forwarded onto the new program along with certain information.

Under the APC, which would be similar for the new program, handlers use US Office of Management and Budget (OMB) approved reporting forms that are compiled on a monthly basis. These forms are manually completed, printed and mailed. The APC is currently developing an automated reporting forms platform. Each handler will have unique password protected access to this platform to submit data in real time to the APC. Development of this platform will be modified to handle the needs of the new program. As proposed, handlers and importers will be required to report their handled Pecans each month to the new program. As the handler inputs data into the reporting platform, data will automatically populate the specific forms for both the new program and APC concurrently. This will enable businesses to streamline the process by only having to enter data once, eliminating the need to fill out separate form packages for both Pecan programs. Per the proposed new program, producers will be issued a grower identification number (GIN). The GIN combined with the handler's unique identification number will ensure compliance within the system, as specified by the new program.

Handler office and administration staff already report Pecan shipping data and pay assessments to the APC. These tasks include compiling data and reporting once per month. Once the automated reporting process is deployed, this process will eliminate the need to manually input data to hard copy forms and mail or fax the forms. Staff will use a computer to access the reporting portal and input data electronically. The platform will reduce the time required to provide data to comply with the APC and new program.

Based on OMB form burden statements for the APC, handlers spend on average 35 minutes per month compiling and filing the required data. This same data will be required by the new program first handlers and importers. The reporting process requires one individual to complete the reporting task. Based on an hourly wage of \$12, it is estimated that the cost to comply with the reporting requirements will be \$7 per month per handler for both programs. By splitting the time filing for both the APC and the proposed program, the cost to comply with the new program requirements will be \$3.50 per month.

The new program also mandates importers of imported Pecans to comply with reporting regulations. It is estimated that there are 51 importers that will be subject to these regulations based on CBP data. Many of the importers are also mandated to report under APC regulations as handlers of domestic Pecans. Based on APC data, approximately 15% of the importers are not currently mandated to file reports and assessments to the APC. Under the new program, these importers will have to file the required data through the reporting portal again at a minimal cost of \$7 per month.

That is a lot of detail, so here is the summary:

- 1) Producers under 30 acres will not have to pay assessments under the proposed program;

- 2) Producers between 30 acres and 291 acres will, in most circumstances, have no reports to file as these will be filed for them by the first handlers. If, however, if a farmer does not sell to a first handler (an example would be a direct exporter) it would have an additional \$7 per month cost;
- 3) Producers above 291 acres are not small businesses;
- 4) Approximately 239 handlers (11 of the estimated 250 handlers are large business entities) would have cost of between \$3.50 and \$7.00 per month for any US producers Pecans they handle (the other \$3.50 cost is attributed to the APC);
- 5) Importers/handlers located outside the U.S. would have a little to no cost as most of the assessment and information collecting will be done by the CBP; and
- 6) Importers and handlers in the U.S. and outside the U.S. not going through the CPB may have some additional costs of reporting but these are estimated as only a \$7.00 per month cost.

Our cost projections and processes, discussed above, indicate that the proposed new program would not disproportionately burden either small producers or small handlers and importers.

E. Industry Support.

For months, stakeholders in the US Pecan industry have loudly and consistently voiced the need to increase generic Pecan marketing by requiring importers of Pecans to help market Pecans in the US. All importers of Pecans into the US, whether inshell or shelled, contribute zero dollars to the promotion campaign to increase the demand for Pecans or for any research related to Pecans. Therefore, the initiative by the NPF to assess imported Pecans as well as US grown Pecans through the proposed research and promotion program is welcome news to all industry participants, US producers and importers alike. Importers have always verbally supported generic marketing of the Pecans in the US, and acknowledge the marketing's value to the industry but have never voluntarily contributed to these efforts.

The proactive and detailed communication by the NPF to inform the industry of the proposed program has been widespread across the industry and has engaged a large portion of the US producers, handlers and importer groups as discussed below.

The announcements have been particularly expedient as grower and processor conferences for 2020 began in February. Presentations have been led by the NPF team of Robert Redding of Washington, D.C., Jeb Barrow of Georgia, and Larry Don Womack of Texas. The informational roll out began in February with a session with the Board of the Southeastern Pecan Growers Association (SEPGA) at their annual meeting in Panama City, Florida. SEPGA represents the Pecan producing states of North Carolina, South Carolina, Florida, Alabama, and Georgia.

Following that initial meeting, the calendar of scheduled sessions where this initiative was presented are as follows:

February 18:

Georgia Pecan Commission and Georgia Department of Agriculture Staff

February 20:

Georgia Pecan Growers Association in Panama City, Florida

February 21:

Southeastern Pecan Growers Association, Panama City, Florida

February 28:

Texas Pecan Growers Association Board of Directors meeting in Fabens, Texas;

March 1-3:

Western Pecan Growers Conference in Las Cruces, New Mexico;

Western Pecan Growers Association (WPGA) Board of Directors of New Mexico, Arizona, and California;

New Mexico Pecan Growers Board of Directors;

US Pecan Growers Council;

West Texas Pecan Growers Association;

March 9:

Telephone conference with the Oklahoma Pecan Growers Association Board of Directors with other interested Pecan growers.

March 10:

National Pecan Shellers Association (NPSA) mid-winter conference in Tampa, Florida; Presentation to NPSA Board of Directors;

March 14:

Telephone conference with the Louisiana Pecan Growers Association Board of Directors and other interested Pecan growers on the call

March 17:

Telephone conference with the Mississippi Pecan Growers Association Executive Committee

The majority of the Pecan producing states and a majority of large importers were represented at one or more of the aforementioned meetings. Producers, handlers and importers were present and well represented. Importers were especially well represented at the NPSA meeting in Tampa and the WPGA meeting in Las Cruces. In all sessions, the information was well received by all with a healthy exchange of questions and answers. Particularly significant was the support of a number of importers who expressed the high value of a coordinated effort on behalf of importers and US producers. In almost every single meeting, the leadership expressed a willingness to support the effort with letters, phone calls, and personal contacts. The NPF presenters explained that the process will include a period of public comment following publication of the proposed program in the Federal Register, at which time these associations support will be expressed.

Because of travel and health concerns, and the cancellation or rescheduling of conferences, the NPF has also advertised the proposed program in the "The Pecan Grower" and "Pecan South" magazines, April 2020 editions. These are the two publications that reach virtually all of the Pecan industry. The NPF has also agreed to be interviewed for articles in these magazines concerning the proposed program and to do further advertising and outreach through these magazines in the future. See Exhibit B, attached, for the April Announcement and Advertisement in "Pecan South" and "The Pecan Grower."

In summary, the NPF's roll out of information for a new National research and promotion program for Pecans has been enthusiastically received by stakeholders in a commodity group eager to increase the demand for its product.

F. Text of the Proposal.

The text of the Proposal is attached hereto as Exhibit C. We believe it conforms with the Act.

We would like to draw attention to two areas in the Proposal's text discussed in subsection 12xx.40, as well as Section 7414(b) of the Act. This section of the Act and the Proposal contain instructions on the makeup of the Board and the representation of the Regions of the United States. Specifically, the Board under the Act, if there are assessments of imports which there are in this case, is to be made up of both US producers as well as importers. The initial representatives of the US producers and the importers on the Board is determined by the quantity of Pecans represented by each group.

In the Pecan industry, for all time, counting and correct data has been a problem. It is one of the great challenges of this process and is a source of focus and discomfort for all industry participants. Better industry data is one of the objectives of this proposed program as it is for the APC and USDA. The US government has also not been able to produce accurate data for the industry, an example of this is that NASS only counts Pecan numbers in five of the 15 states that

Pecans are produced in the US. We are not assigning fault for these facts, only expressing what everyone in the Pecan industry knows.

Accordingly, as a rule, US grown Pecans have been undercounted and imports have been over counted, or double counted (see Exhibit D, attached, explaining this in detail). Again, we are not assigning fault for these facts only expressing what everyone in the Pecan industry knows.

The lack of accurate quantity or volume data also affects the Proposal's sub section 12xx.40 concerning the geographical distribution of Board representation in the proposed US producer Regions. Specifically, the Central Region has regularly been undercounted because of the absence of NASS counting in five of the seven states comprising the region and because of the historical and peculiar growing, harvesting, accumulating and selling structures of native Pecans that are grown mainly in the Central Region. These unique native Pecan practices as well as current NASS counting restrictions have been estimated to undercount the US's total volume by as much as 60MM inshell pounds (See Exhibit D, attached, for a discussion of these issues). This especially affects the Central region's volume numbers.

Finally, the issue of how many years data is used to compare US Pecans and imports must be addressed. Pecans are completely different from row crops in the number of years needed to determine accurately trends and numbers. For example, a row crop's production trends can adequately be explained, with the exception of unusual meteorological events, with three (3) years data. Pecans are deciduous, perennial, alternate bearing, affected by weather and cultural practices that may take many years to reveal themselves in production numbers, and newly planted trees take years to make an impact on volume numbers and trends.

As a response to these issues, the NPF asked for the opinions of horticultural and statistical experts in the Pecan botanical and statistical areas working at two different land grant universities. Attached as Exhibit E is correspondence from Dr. Lenny Wells, Professor and Head of the Georgia Extension Service's Pecan Crop group at the University of Georgia. Dr. Wells makes two important points, the number of crop years to consider should be up to 10 years but at least seven (7) years for Pecans and that the proposed Eastern Region and the US Pecan Crop was undercounted in the 2018 as a result of Hurricane Michael by as much as 53MM to 58MM pounds of inshell crop in Georgia (not counting Alabama and Florida Pecan crop damage) and therefore 2018 is an anomalous year to use in terms of crop volumes for statistical purposes.

Also enclosed as Exhibit D is a letter from Mr. Dan Zedan, a Pecan industry statistical expert that also operates as an importer and handler in the Central Region. Mr. Zedan has been analyzing Pecan industry information for over 34 years and he sets forth his view of the volume numbers in the Pecan industry and his view that the US (and in particular the Central Region) producer numbers are undercounted each year by as much as 60MM inshell pounds and the import numbers are routinely overstated.

Finally, attached as Exhibit F is a letter from Drs. Capps and Williams, both professors at Texas A&M University, stating their opinions that Pecan volumes and trends cannot be adequately

judged unless the sample information is 10 years. They conclude in their analysis that the US producers contribute 61% of the crop and importers contribute 39% of the crop, over the applicable statistical period for Pecans.

All of these professional opinions, as well as the options of other Pecan industry participants, have been considered by the NPF. As a result, the NPF believes the most reliable information requires the Proposal to initially constitute a Board of 17 persons, 10 from US producers and seven (7) from importers. Additionally, the NPF concludes that the US producers should be elected from three regions as set forth in the Proposal with three (3) representatives each from the Eastern Region and Central Region and four (4) representatives from the Western Region.

G. Conclusion.

The NPF has gained a consensus of both US producers and importers as to the Pecan industry's greatest challenges and greatest opportunities, as outlined above, and how they can both be managed through a new National research and promotion program for Pecans. The Pecan industry and the NPF are excited to be taking this step toward advancing the proposed program by submitting to you these materials.

In order to achieve the objective of the proposed program, it would be extremely helpful to ready this program so that it has the authority to assess the Pecan industry beginning October 1, 2020.

We are grateful for the advice and help we have received from the Agricultural Marketing Service in this endeavor.

Sincerely Yours,

A handwritten signature in black ink, appearing to read "J Barrow". The signature is fluid and cursive, with a large initial "J" and a long, sweeping underline.

Jeb Barrow
Chairman

Exhibits and Attachments:

Exhibit A- Officers and Advisors

Exhibit B – April Announcements and Advertisements in “Pecan South” and “The Pecan Grower”

Exhibit C – Proposal

Exhibit D – Letter and attachments from Mr. Dan Zedan, Pecan Industry statistical expert and a handler and importer

Exhibit E – Note from Dr. Lenny Wells, University of Georgia

Exhibit F – Letter and attachments from Dr. Capps and Williams, Texas A&M University

EXHIBIT A

National Pecan Federation

| <u>BOARD</u> | <u>ORGANIZATION</u> | <u>Contact</u> |
|------------------|--|----------------|
| Jeb Barrow | Georgia Pecan Growers Association | |
| Rob Cohen | Southeastern Pecan Growers Association | |
| Jon Krueger | National Pecan Shellers Association | |
| Jay Glover | Western Pecan Growers Association | |
| Chad Selman | Oklahoma Pecan Growers Association | |
| Larry Don Womack | Texas Pecan Growers Association | |

Import Advisory Committee

- Paul Quiros - Hawkinsville, GA
- Dwight Davis - Hawkinsville, GA
- David Salopek -Las Cruces, NM
- Bob Redding - Washington DC

The Pecan Grower

OFFICIAL PUBLICATION OF THE GEORGIA PECAN GROWERS ASSOCIATION



Roughly Two Years Later, Pecan Growers Continue Forward In Hopes To Survive Another Generation see page 24

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Rob & Eric Cohen standing amidst replanted trees after 2018 hurricane damage



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The National Pecan Federation Announces A Proposed New Research And Promotion Program For Domestic And Imported Pecans



By Robert L. Redding, Jr., The Redding Firm

To All Participants in the Pecan Industry:

The National Pecan Federation (NPF) as the advocacy group for the Pecan Industry in Washington, D.C., has been working with the United States Department of Agriculture (USDA) to establish a new Research and Promotion Program for the pecan industry. This new program would assess both domestic and im-

ported pecans to increase monies available for Research and Promotion of Pecans. Under this program U.S. growers and handlers will not pay any more in assessments than they are currently paying to the American Pecan Council (APC). All additional funds for research and promotion will come from imported pecans. This information has been disseminated at the various industry conferences this Spring, but in light of conference cancellations, we wanted to report this information more broadly through industry publications.

Research and experience has shown that an important tool to increase crop prices by correcting future supply/demand imbalances is to aggressively promote pecans in major consumer markets, primarily the U.S.

One problem all pecan industry participants recognize is that no foreign-grown pecans imported into

Continued on Page 17, See Report



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Fungicides, Continued from Page 16

the United States are assessed by the APC. The law under which the APC was established prevents it from assessing foreign-grown pecans imported into the U.S. As a result, producers and handlers in the U.S. have to promote their pecan crop as well as any foreign-grown pecans imported into the U.S.

Therefore, the NPF has been working to create a new USDA oversight program called the American Pecan Promotion Board (APPB). The APPB would have the authority to assess both pecans grown in the U.S. and imported into the U.S. At

current import levels that would nearly double the amount of money for research and promotion by an additional \$4 to \$6 million per year. This new money for research and promotion will be critical for the success of increasing demand to meet supply in the future.

Setting aside the uneven playing field for U.S. growers and handlers, the pecan industry needs more money to promote its healthy, tasty product and we believe we can grow the demand for pecans with more Research and Promotion money.

The initial Board for the APPB will consist of both U.S. producers (growers) and Importers (importers will include U.S.-based shellers/importers, as well as foreign based importers). The U.S. producer board members and the importer board members will be selected by the Secretary of Agriculture. In the future we will again provide information in industry publications to set out the procedure for nominating persons for service on the new APPB. This new proposal will be published by USDA in the Federal Register giving all segments of the industry and all individuals an opportunity to comment on the proposal.

The details of this plan are hard to explain in a short letter, but please look for more information from NPF soon. We cannot close without reiterating two important matters that are part of this proposed program: 1) U.S. growers and handlers will not pay any more in assessments than they are currently paying to the APC, and 2) all additional new funds for research and promotion will come from imported pecans. Again, more information will follow. 🍂



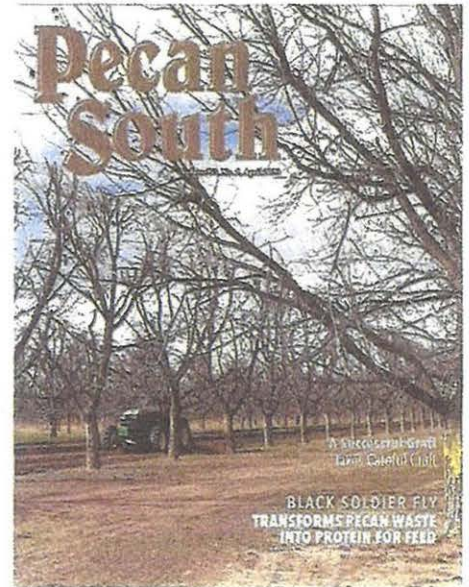
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Our Cover

Workers at Rio Bravo Farms in Tornillo, Texas clean up after hedging in late February and prepare for their next task.
(Photo by Blair Krebs)

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Editor's Correction

In the March 2020 issue, the infographic in "Planting, Propagating, & Promoting Pecans in South Africa" should read South Africa produced approximately 40,937,000 pounds of pecans in 2018. This error has been corrected online.

The National Pecan Federation Announces a Proposed New Research and Promotion Program for Domestic and Imported Pecans

All Participants in the Pecan Industry:

The National Pecan Federation (NPF), the advocacy group for the Pecan Industry in Washington, D.C., has been working with the United States Department of Agriculture (USDA) to establish a new Research and Promotion Program for the pecan industry. This new program would assess both domestic and imported pecans to increase monies available for Research and Promotion of pecans. Under this program, U.S. growers and handlers will not pay any more in assessments than they are currently paying to the American Pecan Council (APC). All additional funds for research and promotion will come from imported pecans. This information has been disseminated at the various industry conferences this spring, but in light of conference cancellations, we wanted to report this information more broadly through industry publications.

Research and experience of dozens of crops as well as our own have shown that an important tool to increase crop prices by correcting future supply/demand imbalances is to promote pecans aggressively in major consumer markets, primarily the United States.

One problem all pecan industry participants recognize is that no foreign grown pecans imported into the United States are assessed by the American Pecan Council. The law under which the APC was established prevents it from assessing foreign grown pecans imported into the U.S. As a result, producers and handlers in the U.S. have to promote their pecan crop as well as any foreign grown pecans imported into the United States.

Therefore, the NPF has been working to create a new USDA overseen program called the American Pecan Promotion Board (APPB). The APPB would have

the authority to assess both pecans grown in the U.S. and imported into the U.S. At current import levels that would nearly double the amount of money for research and promotion, or bring in an additional \$4 to \$6 million per year. This new money for research and promotion will be critical for the success of increasing demand to meet future supply.

Setting aside the uneven playing field for U.S. growers and handlers, the pecan industry needs more money to promote its healthy, tasty product and we believe we can grow the demand for pecans with more research and promotion money.

The initial Board for the APPB will consist of both U.S. Producers (growers) and Importers (importers will include U.S. based shellers/importers as well as foreign-based importers). The Secretary of Agriculture will select the U.S. producer board members and the importer board members. In the future, we will again provide information in industry publications to set out the procedure for nominating persons for service on the new APPB. This new proposal will be published by USDA in the Federal Register, giving all segments of the industry and all individuals an opportunity to comment on the proposal.

It is hard to explain all the details in a short letter, but please look for more information from us soon. We cannot close without reiterating two important matters that are part of this proposed program: 1) U.S. growers and handlers will not pay any more in assessments than they are currently paying to the APC, and 2) all additional new funds for research and promotion will come from imported pecans. Again, more information will follow.

NATIONAL PECAN FEDERATION

PART 12XX—AMERICAN PECAN PROMOTION BOARD

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Subpart A—Pecan Promotion, Research, and Information Order

Definitions

§12xx.1 Act.

Act means the Commodity Promotion, Research, and Information Act of 1996 (7 U.S.C. 7411-7425; Pub. L. 104-127; 110 Stat. 1029), or any amendments thereto.

§12xx.2 American Pecan Council.

American Pecan Council or APC means that governing body of the Federal Marketing Order established pursuant to 7 C.F.R. Section 986, et seq., unless otherwise noted.

§12xx.3 American Pecan Promotion Board.

American Pecan Promotion Board or the Board means the administrative body established pursuant to §12xx.40.

§12xx.4 Conflict of interest.

Conflict of interest means a situation in which a member or employee of the Board has a direct or indirect financial interest in a person who performs a service for, or enters into a contract with, the Board for anything of economic value.

§12xx.5 Customs or CBP.

Customs or CBP means Customs and Border Protection, an agency of the United States Department of Homeland Security.

§12xx.6 Department or USDA.

Department or USDA means the U.S. Department of Agriculture, or any officer or employee of the Department to whom authority has heretofore been delegated, or to whom authority may hereafter be delegated, to act in the Secretary's stead.

§12xx.7 First handler.

First handler means any person who receives, shells, cracks, accumulates, warehouses, roasts, packs, sells, consigns, transports, exports, or ships (except as a common or contract carrier of pecans owned by another person), or in any other way puts inshell or shelled pecans in the stream of commerce. The term first handler includes a producer who handles or markets pecans of the producer's own production.

§12xx.8 Fiscal period.

Fiscal period means a calendar year from October 1 to September 30, or such other period as recommended by the Board and approved by the Secretary.

§12xx.9 Importer.

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Importer means any person who imports pecans into the United States as a principal or as an agent, broker, or consignee of any person who produces or handles pecans outside of the United States for sale in the United States, and who is listed in the import records as the importer of record for such pecans.

§12xx.10 Information.

Information means information and programs that are designed to increase efficiency in processing and to develop new markets, marketing strategies, increase market efficiency, and activities that are designed to enhance the image of pecans on a national or international basis. These include:

(a) *Consumer information*, which means any action taken to provide information to, and broaden the understanding of, the general public regarding the consumption, use, nutritional attributes, and care of pecans; and

(b) *Industry information*, which means information and programs that will lead to the development of new markets, new marketing strategies, or increased efficiency for the pecan industry, and activities to enhance the image of the pecan industry.

§12xx.11 Inshell pecans.

Inshell pecans are nuts whose kernel is maintained inside the shell.

§12xx.12 Market or marketing.

(a) *Marketing* means the sale or other disposition of pecans in any channel of commerce.

(b) To *market* means to sell or otherwise dispose of pecans in interstate, foreign, or intrastate commerce.

§12xx.13 Order.

Order means an order issued by the Secretary under section 514 of the Act that provides for a program of generic promotion, research, and information regarding agricultural commodities authorized under the Act.

§12xx.14 Part and subpart.

Part means the Pecan Promotion, Research, and Information Order and all rules, regulations, and supplemental orders issued pursuant to the Act and the Order. The Order shall be a *subpart* of such part.

§12xx.15 Pecans.

Pecans means and includes any and all varieties or subvarieties, inshell or shelled, of the Genus, species: *Carya illinoensis* grown or imported into the United States.

§12xx.16 Person.

Person means any individual, group of individuals, partnership, corporation, association, cooperative, or any other legal entity.

§12xx.17 Producer.

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Producer is synonymous with grower and any person engaged in the production and sale of pecans in the United States who owns, or who shares in the ownership and risk of loss of such pecans.

§12xx.18 Promotion.

Promotion means any action taken to present a favorable image of pecans to the general public and the food industry for the purpose of improving the competitive position of pecans both in the United States and abroad and stimulating the sale of pecans. This includes paid advertising and public relations.

§12xx.19 Research.

Research means any type of test, study, or analysis designed to advance the image, desirability, use, marketability, production, product development, or quality of pecans, including research relating to nutritional value, cost of production, new product development, varietal development, nutritional value, health research, and marketing of pecans.

§12xx.22 Secretary.

Secretary means the Secretary of Agriculture of the United States, or any officer or employee of the Department to whom authority has heretofore been delegated, or to whom authority may hereafter be delegated, to act in the Secretary's stead.

§12xx.21 Shelled pecans.

Shelled pecans are pecans whose shells have been removed leaving only edible kernels, kernel pieces or pecan meal. One pound of shelled pecans is the equivalent of two pounds inshell pecans.

§12xx.22 Suspend.

Suspend means to issue a rule under section 553 of title 5, U.S.C., to temporarily prevent the operation of an order or part thereof during a particular period of time specified in the rule.

§12xx.23 Terminate.

Terminate means to issue a rule under section 553 of title 5, U.S.C., to cancel permanently the operation of an order or part thereof beginning on a date certain specified in the rule.

§12xx.24 United States.

United States means collectively the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, and the territories and possessions of the United States.

AMERICAN PECAN PROMOTION BOARD

§12xx.40 Establishment and membership.

(a) *Establishment of the American Pecan Promotion Board.* There is hereby established an American Pecan Promotion Board, hereinafter called the Board, comprised of seventeen (17) members, appointed by the Secretary from nominations as follows:

(1) Ten (10) producer members: Three (3) each from the Eastern Region and Central Region and four (4) from the Western Region as follows:

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(i) Eastern Region shall mean the states of Alabama, Florida, Georgia, North Carolina, South Carolina plus any states in the United States, the majority of whose land mass is in the Eastern Time Zone, plus any U.S. territories in the Atlantic Ocean;

(ii) Central Region shall mean the states of Arkansas, Kansas, Louisiana, Mississippi, Missouri, Oklahoma, Texas plus any states in the United States, the majority of whose land mass is in the Central Time Zone; and

(iii) Western Region shall mean the states of Arizona, California, New Mexico plus any states in the United States, the majority of whose land mass is in the Mountain or Pacific Time Zones, plus Alaska and Hawaii and any U.S. territories in the Pacific Ocean.

(2) Seven (7) importers.

(b) *Adjustment of membership.* At least once every five years, the Board will review the geographical distribution of United States production of pecans and the quantity or value of imports. The review will be conducted through an audit of state crop production and Customs figures and Board assessment records. If warranted, the Board will recommend to the Secretary that the membership on the Board be altered to reflect any changes in the geographical distribution of domestic pecan production and the quantity or value of imports. If the level of imports fluctuates versus domestic pecan production, importer members may be added to or reduced from the Board.

(c) *Board's ability to serve the diversity of the industry.* When making recommendations for appointments, the industry should take into account the diversity of the population served and the knowledge, skills, and abilities of the members to serve a diverse population, size of the operations, methods of production and distribution, and other distinguishing factors to ensure that the recommendations of the Board take into account the diverse interest of persons responsible for paying assessments, and others in the marketing chain, if appropriate.

§12xx.41 Nominations and appointments.

(a) Initial nominations for producers will be submitted to the Secretary by the American Pecan Council (APC), or the Department if appropriate. Before considering any nominations, the APC shall publicize the nomination process, using trade press or other means it deems appropriate, to reach out to all known producers for the U.S. market. The APC may use regional caucuses, mail or other methods to elicit potential nominees. The APC shall submit the nominations to the Secretary and recommend two nominees for each Board position specified in paragraph (a)(1) of §12xx.40. The Department will conduct initial nominations for the importer members. From the nominations submitted, the Secretary shall select the members of the Board.

(b) Subsequent nominations shall be conducted as follows:

(1) Nomination of producer members will be conducted by the Board. The Board staff will seek nominations for each vacant producer seat from each region from producers who have paid their assessments to the Board in the most recent fiscal period. Producers who produce pecans in more than one region may seek nomination only in the region in which they produce the majority of their pecans. Nominations will be submitted to the Board office and placed on a ballot that will be sent to producers in each region for a vote. The votes shall be tabulated for each region with the nominee receiving the

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highest number of votes at the top of the list in descending order by vote. Two candidates for each position shall be submitted to the Secretary;

(2) Nomination of importer members will be conducted by the Board. All qualified national organizations representing importer interests will have the opportunity to nominate members to serve on the Board. If the Secretary determines that there are no qualified national organizations representing importer interests, individual importers who have paid assessments to the Board in the most recent fiscal period may submit nominations. The names of importer nominees shall be placed on a ballot and mailed to importers for a vote. The votes shall be tabulated with the nominee receiving the highest number of votes at the top of the list in descending order by vote. Two candidates for each importer Board position shall be submitted to the Secretary. To be certified by the Secretary as a qualified national organization representing importer interests, an organization must meet the following criteria, as evidenced by a report submitted by the organization to the Secretary:

(i) The organization's voting membership must be comprised primarily of importers of pecans;

(ii) The organization has a history of stability and permanency and has been in existence for more than one year;

(iii) The organization must derive a portion of its operating funds from importers;

(iv) The organization must demonstrate it is willing and able to further the Act and Order's purposes; and

(v) To be certified by the Secretary as a qualified national organization representing importer interests, an organization must agree to take reasonable steps to publicize to non-members the availability of open Board importer positions.

(c) Nominees must be in compliance with the Order's applicable provisions.

(d) The Board must submit nominations to the Secretary at least six months before the new Board term begins. From the nominations submitted by the Board, the Secretary shall select the members of the Board.

(e) No two members shall be employed by a single corporation, company, partnership, or any other legal entity.

(f) The Board may recommend to the Secretary modifications to its nomination procedures as it deems appropriate. Any such modifications shall be implemented through rulemaking by the Secretary.

§12xx.42 Term of office.

(a) With the exception of the initial Board, each Board member will serve a three-year term or until the Secretary selects his or her successor. Each term of office shall begin on October 1 and end on September 30. No member may serve more than two consecutive terms, excluding any term of office less than three years.

(b) For the initial board, the terms of Board members shall be staggered for two, three, and four years. Determination of which of the initial members shall serve a term of two, three, or four years shall be

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determined at random. Those members serving an initial term of two, three or four years may serve one successive three-year term.

§12xx.43 Vacancies.

(a) In the event that any member of the Board ceases to work for or be affiliated with the category of members from which the member was appointed to the Board, such position shall automatically become vacant.

(b) If a member of the Board consistently refuses to perform the duties of a member of the Board, or if a member of the Board engages in acts of dishonesty or willful misconduct, the Board may recommend to the Secretary that the member be removed from office. If the Secretary finds the recommendation of the Board shows adequate cause, the Secretary shall remove such member from office.

(c) Should the position of a member become vacant, successors for the unexpired terms of such member shall be appointed in the manner specified in §12xx.40 and §12xx.41, except that said nomination and replacement shall not be required if said unexpired terms are less than six months.

§12xx.44 Procedure.

(a) At a Board meeting, it will be considered a quorum when a majority of members are present.

(b) At the start of each fiscal year, the Board will select a chairperson and vice chairperson who will conduct meetings and appoint committee membership throughout that period.

(c) All Board and committee members will receive a minimum of 10 days advance notice of all Board and committee meetings, unless an emergency meeting is declared by the Chairperson.

(d) Each member of the Board will be entitled to one vote on any matter put to the Board, and the motion will carry if supported by one vote more than 50 percent of the total votes represented by the Board members present.

(e) It will be considered a quorum at a committee meeting when at least one more than half of those assigned to the committee are present. Committees may also consist of individuals other than Board members and such individuals may vote in committee meetings. These committee members shall be appointed by the Chairperson and shall serve without compensation but shall be reimbursed for reasonable travel expenses, as approved by the Board.

(f) In lieu of voting at a properly convened meeting and, when in the opinion of the Chairperson of the Board such action is considered necessary, the Board may take action if supported by one vote more than 50 percent of the members by mail, telephone, electronic mail, facsimile, or any other means of communication, and all telephone votes shall be confirmed promptly in writing. In that event, all members must be notified and provided the opportunity to vote. Any action so taken shall have the same force and effect as though such action had been taken at a properly convened meeting of the Board. All votes shall be recorded in Board minutes.

(g) There shall be no voting by proxy.

(h) The Chairperson shall be a voting member.

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(i) The organization of the Board and the procedures for the conducting of meetings of the Board shall be in accordance with its bylaws, which shall be established by the Board and approved by the Secretary.

§12xx.45 Compensation and reimbursement.

The members of the Board when acting as members, shall serve without compensation but shall be reimbursed for reasonable travel expenses, as approved by the Board, incurred by them in the performance of their duties as Board members.

§12xx.46 Powers and duties.

The Board shall have the following powers and duties:

- (a) To administer the Order in accordance with its terms and conditions and to collect assessments;
- (b) To develop and recommend to the Secretary for approval such bylaws as may be necessary for the functioning of the Board, and such rules as may be necessary to administer the Order, including activities authorized to be carried out under the Order;
- (c) To meet, organize, and select from among the members of the Board a chairperson, other officers, committees, and subcommittees, as the Board determines to be appropriate;
- (d) To employ persons, other than the Board members, or to enter into contracts, other than with Board members, as the Board considers necessary to assist the Board in carrying out its duties and to determine the compensation and specify the duties of such persons, or to determine the contractual terms of such parties;
- (e) To develop programs and projects, and enter into contracts or agreements, which must be approved by the Secretary before becoming effective, for the development and carrying out of programs or projects of research, information, or promotion, and the payment of costs thereof with funds collected pursuant to this subpart. Each contract or agreement shall provide that any person who enters into a contract or agreement with the Board shall develop and submit to the Board a proposed activity; keep accurate records of all of its transactions relating to the contract or agreement; account for funds received and expended in connection with the contract or agreement; make periodic reports to the Board of activities conducted under the contract or agreement; and make such other reports available as the Board or the Secretary considers relevant. Any contract or agreement shall provide that:
 - (1) The contractor or agreeing party shall develop and submit to the Board a program, plan, or project together with a budget or budgets that shall show the estimated cost to be incurred for such program, plan, or project;
 - (2) The contractor or agreeing party shall keep accurate records of all its transactions and make periodic reports to the Board of activities conducted, submit accounting for funds received and expended, and make such other reports as the Secretary or the Board may require;
 - (3) The Secretary may audit the records of the contracting or agreeing party periodically; and
 - (4) Any subcontractor who enters into a contract with a Board contractor and who receives or otherwise uses funds allocated by the Board shall be subject to the same provisions as the contractor.

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- (f) To prepare and submit for approval of the Secretary fiscal year budgets in accordance with §12xx.50;
- (g) To maintain such records and books and prepare and submit such reports and records from time to time to the Secretary as the Secretary may prescribe; to make appropriate accounting with respect to the receipt and disbursement of all funds entrusted to it; and to keep records that accurately reflect the actions and transactions of the Board;
- (h) To cause its books to be audited by a competent auditor at the end of each fiscal year and at such other times as the Secretary may request, and to submit a report of the audit directly to the Secretary;
- (i) To give the Secretary the same notice of meetings of the Board as is given to members in order that the Secretary's representative(s) may attend such meetings, and to keep and report minutes of each meeting of the Board to the Secretary;
- (j) To act as intermediary between the Secretary and any producer, first handler, or importer;
- (k) To furnish to the Secretary any information or records that the Secretary may request;
- (l) To receive, investigate, and report to the Secretary complaints of violations of the Order;
- (m) To recommend to the Secretary such amendments to the Order as the Board considers appropriate;
- (n) To seek funding for such activities including, but not limited to, Market Access Programs (MAP), Technical Assistance Specialty Crop (TASC), or other FAS and USDA grant programs or projects that align with the Board's international marketing plans;
- (o) To research projects exploring subjects such as, but not limited to, potential analysis methods (testing mechanisms) for detecting residue levels of chemicals associated with adulterated pecans entering the food supply of the United States; and
- (p) To work to achieve an effective, continuous, and coordinated program of promotion, research, consumer information, evaluation, and industry information designed to strengthen the pecan industry's position in the marketplace; maintain and expand existing markets and uses for pecans; and to carry out programs, plans, and projects designed to provide maximum benefits to the pecan industry.

§12xx.47 Prohibited activities.

The Board may not engage in, and shall prohibit the employees and agents of the Board from engaging in:

- (a) Any action that would be a conflict of interest; and
- (b) Using funds collected by the Board under the Order to undertake any action for the purpose of influencing legislation or governmental action or policy, by local, state, national, and foreign governments, other than recommending to the Secretary amendments to the Order.

Expenses and Assessments

§12xx.50 Budget and expenses.

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(a) At least 60 days prior to the beginning of each fiscal year, and as may be necessary thereafter, the Board shall prepare and submit to the Secretary a budget for the fiscal year covering its anticipated expenses and disbursements in administering this subpart. Each such budget shall include:

- (1) A statement of objectives and strategy for each program, plan, or project;
- (2) A summary of anticipated revenue, with comparative data or at least one preceding year (except for the initial budget);
- (3) A summary of proposed expenditures for each program, plan, or project; and
- (4) Staff and administrative expense breakdowns, with comparative data for at least one preceding year (except for the initial budget).

(b) Each budget shall provide adequate funds to defray its proposed expenditures and to provide for a reserve as set forth in this subpart.

(c) Subject to this section, any amendment or addition to an approved budget must be approved by the Secretary, including shifting funds from one program, plan, or project to another. Shifts of funds which do not cause an increase in the Board's approved budget and which are consistent with governing bylaws need not have prior approval by the Secretary.

(d) The Board is authorized to incur such expenses, including provision for a reasonable reserve, as the Secretary finds are reasonable and likely to be incurred by the Board for its maintenance and functioning, and to enable it to exercise its powers and perform its duties in accordance with the provisions of this subpart. Such expenses shall be paid from funds received by the Board.

(e) With approval of the Secretary, the Board may borrow money for the payment of administrative expenses, subject to the same fiscal, budget, and audit controls as other funds of the Board. Any funds borrowed by the Board shall be expended only for startup costs and capital outlays and are limited to the first year of operation of the Board.

(f) The Board may accept voluntary contributions, but these shall only be used to pay expenses incurred in the conduct of programs, plans, and projects. Such contributions shall be free from any encumbrance by the donor and the Board shall retain complete control of their use.

(g) The Board may also receive funds provided through the Department's Foreign Agricultural Service or from other sources, for authorized activities.

(h) The Board shall reimburse the Secretary for all expenses incurred by the Secretary in the implementation, administration, and supervision of the Order, including all referendum costs in connection with the Order.

(i) For fiscal years beginning three (3) or more years after the date of the establishment of the Board, the Board may not expend for administration, maintenance, and functioning of the Board in any fiscal year an amount that exceeds 15 percent of the assessments and other income received by the Board for that fiscal year. Reimbursements to the Secretary required under paragraph (h) are excluded from this limitation on spending.

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(j) The Board may establish an operating monetary reserve and may carry over to subsequent fiscal periods excess funds in any reserve so established: *Provided* that the funds in the reserve do not exceed the last two fiscal periods' budget of expenses. Subject to approval by the Secretary, such reserve funds may be used to defray any expenses authorized under this part.

§12xx.51 Financial statements.

(a) As requested by the Secretary, the Board shall prepare and submit financial statements to the Secretary on a monthly or quarterly basis. Each such financial statement shall include, but not be limited to, a balance sheet, income statement, and expense budget. The expense budget shall show expenditures during the time period covered by the report, year-to-date expenditures, and the unexpended budget.

(b) Each financial statement shall be submitted to the Secretary within 30 days after the end of the time period to which it applies.

(c) The Board shall submit annually to the Secretary an annual financial statement within 90 days after the end of the fiscal year to which it applies.

§12xx.52 Assessments.

(a) The funds to cover the Board's expenses shall be paid from assessments on producers and importers, donations from any person not subject to assessments under this Order, and other funds available to the Board including those collected pursuant to §12xx.56 and subject to the limitations contained therein.

(b) Each producer shall pay an assessment per pound of pecans produced in the United States. The collection of assessments on pecans produced in the United States will be the responsibility of the first handler receiving the pecans from producers. In the case of the producer acting as its own first handler, the producer will be required to collect and remit its individual assessments.

(1) First handlers may remit assessments to a third-party collection agent under this Order.

(2) First handlers may also remit assessments directly to the Board.

(c) Such assessments shall be levied at \$0.02 per pound on all inshell pecans and \$0.04 per pound on all shelled pecans. The assessment rate may be reviewed and modified with the approval of the Secretary. A change in the assessment rate is subject to rulemaking by the Secretary.

(d) All assessment payments and reports will be submitted to the office of the Board. All assessment payments for a fiscal year are to be received no later than the 10th of the month following the end of the previous month. A late payment charge shall be imposed on any producer and importer who fails to remit to the Board, the total amount for which any such producer and importer is liable on or before the due date established by the Board on forms approved by the Secretary. In addition to the late payment charge, an interest charge shall be imposed on the outstanding amount for which the producer and importer is liable. The rate of interest shall be prescribed in regulations issued by the Secretary.

(e) Each importer of pecans shall pay an assessment to the Board on pecans imported for marketing in the United States, through the Customs.

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(1) The assessment rate for imported pecans shall be the same or equivalent to the rate for pecans produced in the United States.

(2) The import assessment shall be uniformly applied to imported pecans that are identified by the number 0802.90.10.00 and 0802.90.15.00 in the Harmonized Tariff Schedule (HTS) of the United States or any other numbers used to identify pecans in that schedule.

(3) In the event that any HTS number is subject to assessment is changed and such change is merely a replacement of a previous number and has no impact on the description of pecans, assessment will continue to be collected based on the new numbers.

(4) The assessment due on imported pecans shall be paid when they enter or are withdrawn for consumption in the United States.

(5) If Customs does not collect an assessment from an importer, the importer is responsible for paying the assessment directly to the Board no later than the 10th of the month following the end of the previous month after the assessed pecans were imported into the United States.

(g) Persons failing to remit total assessments due in a timely manner may also be subject to actions under federal debt collection procedures.

(h) The Board may authorize other organizations to collect assessments on its behalf with the approval of the Secretary.

§12xx.53 Exemption procedures.

(a) An exemption from payment of assessments as provided in §12xx.52, shall be provided to producers that domestically produce and importers that import less than 50,000 pounds of inshell pecans (25,000 of shelled pecans) on average for four fiscal periods (the fiscal period for which the exemption is claimed and the previous three fiscal periods) as follows:

(1) Any producer who desires to claim an exemption from assessments shall file an application on a form provided by the Board, for a certificate of exemption for each fiscal period claiming an exemption. Such producer shall certify that it will domestically produce less than 50,000 pounds of inshell pecans (25,000 of shelled pecans) on average for four fiscal periods (the fiscal period for which the exemption is claimed and the previous three fiscal periods). It is the responsibility of the producer to retain a copy of the certificate of exemption.

(2) Any importer who desires to claim an exemption from assessments shall file an application on a form provided by the Board, for a certificate of exemption for each fiscal period claiming an exemption. Such importer shall certify that it will import less than 50,000 pounds of inshell pecans (25,000 of shelled pecans) on average for four fiscal periods (the fiscal period for which the exemption is claimed and the previous three fiscal periods). It is the responsibility of the importer to retain a copy of the certificate of exemption.

(3) On receipt of an exemption application, the Board shall determine whether an exemption may be granted for that fiscal period. The Board will then issue, if deemed appropriate, a certificate of exemption to the producer or importer which is eligible to receive one covering that fiscal period.

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(4) The Board, with the Secretary's approval, may require persons receiving an exemption from assessments to provide to the Board reports on the disposition of exempt pecans and, in the case of importers, proof of payment of assessments.

(5) The exemption will apply immediately following the issuance of the certificate of exemption.

(6) Producers and importers who received an exemption certificate from the Board but domestically produced or imported more than 50,000 pounds of inshell pecans (25,000 shelled of pecans) on average for four fiscal periods (the fiscal period for which the exemption is claimed and the previous three fiscal periods) during the fiscal period shall pay the Board the applicable assessments owed and submit any necessary reports to the Board pursuant to §12xx.60

(b) Assessment refunds. Importers and producers who are exempt from assessment shall be eligible for a refund of assessments collected, either by Customs or a first handler. Requests for such assessment refunds must be submitted to the Board within 90 days of the last day in the fiscal year when assessments were collected on such producer's or importer's pecans. No interest will be paid on such assessments. The Board shall refund such assessments no later than 60 calendar days after receipt by the Board of information justifying the exemption from assessment.

(c) Organic. (1) A producer who domestically produces pecans under an approved National Organic Program (7 CFR part 205) (NOP) organic production system plan may be exempt from the payment of assessments under this part, provided that:

(i) Only agricultural products certified as "organic" or "100 percent organic" (as defined in the NOP) are eligible for exemption;

(ii) The exemption shall apply to all certified "organic" or "100 percent organic" (as defined in the NOP) products of a producer regardless of whether the agricultural commodity subject to the exemption is produced by a person that also produces conventional or nonorganic agricultural products of the same agricultural commodity as that for which the exemption is claimed;

(iii) The producer maintains a valid certificate of organic operation as issued under the Organic Foods Production Act of 1990 (7 U.S.C. 6501-6522) (OFPA) and the NOP regulations issued under OFPA (7 CFR part 205); and

(iv) Any producer so exempted shall continue to be obligated to pay assessments under this part that are associated with any agricultural products that do not qualify for an exemption under this section.

(2) To apply for exemption under this section, an eligible producer shall submit a request to the Board on an Organic Exemption Request Form (Form AMS-15) at any time during the year initially, and annually thereafter on or before the start of the fiscal period, for as long as the producer continues to be eligible for the exemption.

(3) A producer request for exemption shall include the following:

(i) The applicant's full name, company name, address, telephone and fax numbers, and email address;

(ii) Certification that the applicant maintains a valid certificate of organic operation issued under the OFPA and the NOP;

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(iii) Certification that the applicant produces organic products eligible to be labeled “organic” or “100 percent organic” under the NOP;

(iv) A requirement that the applicant attach a copy of their certificate of organic operation issued by a USDA-accredited certifying agent;

(v) Certification, as evidenced by signature and date, that all information provided by the applicant is true; and

(vi) Such other information as may be required by the Board, with the approval of the Secretary.

(4) If a producer complies with the requirements of this section, the Board will grant an assessment exemption and issue a Certificate of Exemption to the producer within 30 days. If the application is disapproved, the Board will notify the applicant of the reason(s) for disapproval within the same timeframe.

(5) An importer who imports pecans that are eligible to be labeled as “organic” or “100 percent organic” under the NOP, or certified as “organic” or “100 percent organic” under a U.S. equivalency arrangement established under the NOP, may be exempt from the payment of assessments. Such importer may submit documentation to the Board and request an exemption from assessment on certified “organic” or “100 percent organic” pecans on an Organic Exemption Request Form (Form AMS-15) at any time initially, and annually thereafter on or before the beginning of the fiscal period, as long as the importer continues to be eligible for the exemption. This documentation shall include the same information required of a producer in paragraph (c)(3) of this section. If the importer complies with the requirements of this section, the Board will grant the exemption and issue a Certificate of Exemption to the importer within the applicable timeframe. Any importer so exempted shall continue to be obligated to pay assessments under this part that are associated with any imported agricultural products that do not qualify for an exemption under this section.

(6) If Customs collects the assessment on exempt product under paragraph (c)(5) of this section that is identified as “organic” by a number in the Harmonized Tariff Schedule, the Board must reimburse the exempt importer the assessments paid upon receipt of such assessments from Customs. For all other exempt organic product for which Customs collects the assessment, the importer may apply to the Board for a reimbursement of assessments paid, and the importer must submit satisfactory proof to the Board that the importer paid the assessment on exempt organic product.

(7) The exemption will apply immediately following the issuance of the Certificate of Exemption.

§12xx.54 Programs, plans, and projects.

(a) The Board shall receive and evaluate, or on its own initiative develop, and submit to the Secretary for approval any program, plan, or project authorized under this subpart. Such programs, plans, or projects shall provide for:

(1) The establishment, issuance, effectuation, and administration of appropriate programs for promotion, research, and information, including producer and consumer information, with respect to pecans; and

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(2) The establishment and conduct of research with respect to the use, nutritional value, sale, distribution, and marketing of pecans, and the creation of new products thereof, to the end that the marketing and use of pecans may be encouraged, expanded, improved, or made more acceptable and to advance the image, desirability, or quality of pecans.

(b) No program, plan, or project shall be implemented prior to its approval by the Secretary. Once a program, plan, or project is so approved, the Board shall take appropriate steps to implement it.

(c) Each program, plan, or project implemented under this subpart shall be reviewed or evaluated periodically by the Board to ensure that it contributes to an effective program of promotion, research, or information. If it is found by the Board that any such program, plan, or project does not contribute to an effective program of promotion, research, or information, then the Board shall terminate such program, plan, or project.

(d) No program, plan, or project including advertising shall be false or misleading or disparaging another agricultural commodity. Pecans of all origins shall be treated equally.

§12xx.55 Independent evaluation.

The Board shall, not less often than every five years, authorize and fund, from funds otherwise available to the Board, an independent evaluation of the effectiveness of the Order and other programs conducted by the Board pursuant to the Act. The Board shall submit to the Secretary, and make available to the public, the results of each periodic independent evaluation conducted under this paragraph.

§12xx.56 Patents, copyrights, trademarks, information, publications, and product formulations.

Patents, copyrights, trademarks, information, publications, and product formulations developed through the use of funds received by the Board under this subpart shall be the property of the U.S. Government as represented by the Board and shall, along with any rents, royalties, residual payments, or other income from the rental, sales, leasing, franchising, or other uses of such patents, copyrights, trademarks, information, publications, or product formulations, inure to the benefit of the Board; shall be considered income subject to the same fiscal, budget, and audit controls as other funds of the Board; and may be licensed subject to approval by the Secretary. Upon termination of this subpart, §12xx.73 shall apply to determine disposition of all such property.

§12xx.57 Refund escrow accounts.

(a) The Board shall establish an interest bearing escrow account with a financial institution that is a member of the Federal Reserve System and will deposit into such account an amount equal to 10 percent of the assessments collected during the period beginning on the effective date of the Order and ending on the date the Secretary announces the results of the required referendum.

(b) If the Order is not approved by the required referendum, the Board shall promptly pay refunds of assessments to all producers and importers that have paid assessments during the period beginning on the effective date of the Order and ending on the date the Secretary announces the results of the required referendum in the manner specified in paragraph (c) of this section.

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(c) If the amount deposited in the escrow account is less than the amount of all refunds that producers and importers subject to the Order have a right to receive, the Board shall prorate the amount deposited in such account among all producers and importers who desire a refund of assessments paid no later than 90 days after the required referendum results are announced by the Secretary.

(d) Any producer or importer requesting a refund shall submit an application on the prescribed form to the Board within 60 days from the date the results of the required referendum are announced by the Secretary. The producer and importer shall also submit documentation to substantiate that assessments were paid. Any such demand shall be made by such producer or importer in accordance with the provisions of this subpart and in a manner consistent with regulations recommended by the Board and prescribed by the Secretary.

(e) If the Order is approved by the required referendum conducted under § 12xx.71 then:

(1) The escrow account shall be closed; and,

(2) The funds shall be available to the Board for disbursement under § 12xx.50.

Reports, Books, and Records

§12xx.60 Reports.

(a) Each first handler or importer subject to this subpart shall be required to provide to the Board periodically such information as required by the Board, with the approval of the Secretary, which may include but not be limited to the following:

(1) First handler must report:

(i) Number of pounds handled;

(ii) Number of pounds on which an assessment was collected;

(iii) Name, address and other contact information from whom the first handler has collected the assessments on each pound handled; and

(iv) Date collection was made on each pound handled.

(2) Unless provided by Customs, importer must report:

(i) Number of pounds imported;

(ii) Number of pounds on which an assessment was paid;

(iii) Name, address, and other contact information of the importer; and

(iv) Date assessment was paid on each pound imported.

(b) These reports shall accompany the payment of the collected assessments.

§12xx.61 Books and records.

Each producer, first handler and importer subject to this subpart shall maintain and make available for inspection by the Secretary such books and records as are necessary to carry out the provisions of this

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subpart and the regulations issued thereunder, including such records as are necessary to verify any reports required. Such records shall be retained for at least 3 years beyond the fiscal period of their applicability.

§12xx.62 Confidential treatment.

All information obtained from books, records, or reports under the Act, this subpart, and the regulations issued thereunder shall be kept confidential by all persons, including all employees and former employees of the Board, all officers and employees and former officers and employees of contracting and subcontracting agencies or agreeing parties having access to such information. Such information shall not be available to Board members, producers, importers, or first handlers. Only those persons having a specific need for such information to effectively administer the provisions of this subpart shall have access to such information. Only such information so obtained as the Secretary deems relevant shall be disclosed by them, and then only in a judicial proceeding or administrative hearing brought at the direction, or on the request, of the Secretary, or to which the Secretary or any officer of the United States is a party and involving this subpart. Nothing in this section shall be deemed to prohibit:

- (a) Use of prohibited information to determine Board eligibility;
- (b) The issuance of general statements based upon the reports of the number of persons subject to this subpart or statistical data collected therefrom, which statements will not identify the information furnished by any person; and
- (c) The publication, by direction of the Secretary, of the name of any person who has been adjudged to have violated this subpart, together with a statement of the particular provisions of this subpart violated by such person.

Miscellaneous

§12xx.70 Right of the Secretary.

All fiscal matters, programs, plans, or projects, rules or regulations, reports, or other substantive actions proposed and prepared by the Board shall be submitted to the Secretary for approval.

§ 12xx.71 Referenda.

(a) Required referendum. For the purpose of ascertaining whether the persons subject to this Order favor the continuation, suspension, amendment, or termination of this Order, the Secretary shall conduct a referendum among persons subject to assessments under § 12xx.52 who, during a representative period determined by the Secretary, have engaged in the production or importation of pecans:

- (1) The required referendum shall be conducted not later than 3 years after assessments first begin under the Order;
- (2) The order will be approved in a referendum if a majority of producers and importers vote for approval in the referendum.

(b) Subsequent referenda. The Secretary shall conduct subsequent referenda:

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- (1) For the purpose of ascertaining whether producers and importers favor the continuation, suspension or termination of the Order;
- (2) Every seven years the Secretary shall hold a referendum to determine whether producers and importers of pecans favor the continuation of the Order. The Order shall continue if it is favored by a majority of producers and importers voting for approval in the referendum who have been engaged in the production or importation of pecans;
- (3) At the request of the Board established in this Order;
- (4) At the request of 10 percent or more of the number of persons eligible to vote in a referendum as set forth under the Order; or
- (5) At any time as determined by the Secretary.

§12xx.72 Suspension and termination.

(a) The Secretary shall suspend or terminate this part or subpart or a provision thereof if the Secretary finds that the subpart or a provision thereof obstructs or does not tend to effectuate the purposes of the Act, or if the Secretary determines that this subpart or a provision thereof is not favored by persons voting in a referendum conducted pursuant to the Act.

(b) The Secretary shall suspend or terminate this subpart at the end of the marketing year whenever the Secretary determines that its suspension or termination is approved or favored by a majority of producers and importers voting for approval who, during a representative period determined by the Secretary, have been engaged in the production or importation of pecans.

(c) If, as a result of a referendum the Secretary determines that this subpart is not approved, the Secretary shall:

- (1) Not later than 180 days after making the determination, suspend or terminate, as the case may be, collection of assessments under this subpart; and
- (2) As soon as practical, suspend or terminate, as the case may be, activities under this subpart in an orderly manner.

§12xx.73 Proceedings after termination.

(a) Upon the termination of this subpart, the Board shall recommend not more than three of its members to the Secretary to serve as trustees for the purpose of liquidating the affairs of the Board. Such persons, upon designation by the Secretary, shall become trustees of all of the funds and property then in the possession or under control of the Board, including claims for any funds unpaid or property not delivered, or any other claim existing at the time of such termination.

(b) The said trustees shall:

- (1) Continue in such capacity until discharged by the Secretary;
- (2) Carry out the obligations of the Board under any contracts or agreements entered into pursuant to the Order;

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(3) From time to time account for all receipts and disbursements and deliver all property on hand, together with all books and records of the Board and the trustees, to such person or persons as the Secretary may direct; and

(4) Upon request of the Secretary execute such assignments or other instruments necessary and appropriate to vest in such person's title and right to all funds, property and claims vested in the Board or the trustees pursuant to the Order.

(c) Any person to whom funds, property or claims have been transferred or delivered pursuant to the Order shall be subject to the same obligations imposed upon the Board and upon the trustees.

(d) Any residual funds not required to defray the necessary expenses of liquidation shall be turned over to the Secretary to be disposed of, to the extent practical, to the pecan producer organizations in the interest of continuing pecan promotion, research, and information programs.

§12xx.74 Effect of termination or amendment.

Unless otherwise expressly provided by the Secretary, the termination of this subpart or of any regulation issued pursuant thereto, or the issuance of any amendment to either thereof, shall not:

(a) Affect or waive any right, duty, obligation or liability which shall have arisen, or which may thereafter arise in connection with any provision of this subpart or any regulation issued thereunder; or

(b) Release or extinguish any violation of this subpart or any regulation issued thereunder; or

(c) Affect or impair any rights or remedies of the United States, or of the Secretary or of any other persons, with respect to any such violation.

§12xx.75 Personal liability.

No member or employee of the Board shall be held personally responsible, either individually or jointly with others, in any way whatsoever, to any person for errors in judgment, mistakes, or other acts, either of commission or omission, as such member or employee, except for acts of dishonesty or willful misconduct.

§12xx.76 Separability.

If any provision of this subpart is declared invalid or the applicability thereof to any person or circumstances is held invalid, the validity of the remainder of this subpart or the applicability thereof to other persons or circumstances shall not be affected thereby.

§12xx.77 Amendments.

Amendments to this subpart may be proposed from time to time by the Board or by any interested person affected by the provisions of the Act, including the Secretary.

§12xx.78 OMB control numbers.

The control number assigned to the information collection requirements by the Office of Management and Budget pursuant to the Paperwork Reduction Act of 1995, 44 U.S.C. Chapter 35, is OMB control number xxxx, except for the Board nominee background statement form which is assigned OMB control number xxxx. [To be determined by USDA]

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Subpart B—Procedure for the Conduct of Referenda in Connection with the Pecan Promotion, Research, and Information Order

§12xx.100 General.

Referenda to determine whether eligible pecan producers and importers favor the issuance, amendment, suspension, or termination of the Pecan Promotion, Research, and Information Order shall be conducted in accordance with this subpart.

§12xx.101 Definitions.

(a) *Administrator* means the Administrator of the Agricultural Marketing Service, with power to redelegate, or any officer or employees of the U.S. Department of Agriculture to whom authority has been delegated or may hereafter be delegated to act in the Administrator's stead.

(b) *Pecans* means and includes any and all varieties or subvarieties, inshell and shelled, of *Carya illinoensis* grown or imported into the United States.

(c) *Eligible importer* means any person who, during the representative period, was subject to the Order and required to pay assessments on pecans imported into the United States.

(d) *Eligible producer* means any person who, during the representative period, was subject to the Order and required to pay assessments on pecans produced in the United States.

(e) *Order* means the Pecan Promotion, Research, and Information Order.

(f) *Person* means any individual, group of individuals, partnership, corporation, association, cooperative, or any other legal entity. For the purpose of this definition, the term "partnership" includes, but is not limited to:

(1) A husband and a wife who have title to, or leasehold interest in, a pecan farm as tenants in common, joint tenants, tenants by the entirety, or, under community property laws, as community property; and

(2) So-called "joint ventures" wherein one or more parties to an agreement, informal or otherwise, contributed land and others contributed capital, labor, management, or other services, or any variation of such contributions by two or more parties.

(g) *Referendum agent or agent* means the individual or individuals designated by the Secretary to conduct the referendum.

(h) *Representative period* means the period designated by the Secretary.

(i) *United States* means collectively the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, and the territories and possessions of the United States.

§12xx.102 Voting.

(a) Each person who is an eligible producer or an eligible importer, as defined in this subpart, at the time of the referendum and during the representative period, shall be entitled to cast only one ballot in the referendum. However, each producer in a landlord-tenant relationship or a divided ownership

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arrangement involving totally independent entities cooperating only to produce pecans, in which more than one of the parties is a producer, shall be entitled to cast one ballot in the referendum covering only such producer's share of the ownership. (b) Proxy voting is not authorized, but an officer or employee of a corporate producer or importer, or an administrator, executor, or trustee or an eligible entity may cast a ballot on behalf of such person. Any individual so voting in a referendum shall certify that such individual is an officer or employee of the eligible entity, or an administrator, executive, or trustee of an eligible entity and that such individual has the authority to take such action. Upon request of the referendum agent, the individual shall submit adequate evidence of such authority.

(c) All ballots are to be cast by mail, overnight delivery, electronic mail, facsimile, or by other means as instructed by the Secretary.

§12xx.103 Instructions.

The referendum agent shall conduct the referendum, in the manner herein provided, under the supervision of the Administrator. The Administrator may prescribe additional instructions, not inconsistent with the provisions hereof, to govern the procedure to be followed by the referendum agent. Such agent shall:

(a) Determine the period during which ballots may be cast.

(b) Provide ballots and related material to be used in the referendum. The ballot shall provide for recording essential information, including that needed for ascertaining whether the person voting, or on whose behalf the vote is cast, is an eligible voter.

(c) Give reasonable public notice of the referendum:

(1) By utilizing available media or public information sources, without incurring advertising expense, to publicize the dates, places, method of voting, eligibility requirements, and other pertinent information. Such sources of publicity may include, but are not limited to, print and radio; and

(2) By such other means as the agent may deem advisable.

(d) Mail to eligible producers and eligible importers whose names and addresses are known to the referendum agent, the instructions on voting, a ballot, and a summary of the terms and conditions of the proposed Order. No person who claims to be eligible to vote shall be refused a ballot.

(e) At the end of the voting period, collect, open, number, and review the ballots and tabulate the results in the presence of an agent of a third party authorized to monitor the referendum process.

(f) Prepare a report on the referendum.

(g) Announce the results to the public.

§12xx.104 Subagents.

The referendum agent may appoint any individual or individuals necessary or desirable to assist the agent in performing such referendum agent's functions hereunder. Each individual so appointed may be authorized by the agent to perform any or all of the functions which, in the absence of such appointment, shall be performed by the agent.

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§12xx.105 Ballots.

The referendum agent and subagents shall accept all ballots cast. However, if the agent or subagent deems that a ballot should be challenged for any reason, the agent or subagent shall endorse above their signature, on the ballot, a statement to the effect that such ballot was challenged, by whom challenged, the reasons therefore, the results of any investigations made with respect thereto, and the disposition thereof. Ballots invalid under this subpart shall not be counted.

§12xx.106 Referendum report.

Except as otherwise directed, the referendum agent shall prepare and submit to the Administrator a report on the results of the referendum, the manner in which it was conducted, the extent and kind of public notice given, and other information pertinent to the analysis of the referendum and its results.

§12xx.107 Confidential information.

The ballots and other information or reports that reveal, or tend to reveal, the vote of any person covered under the Act and the voting list shall be held confidential and shall not be disclosed.

Subpart C—Provisions for Implementing the Pecan Promotion, Research and Information Order

§12xx.520 Late payment and interest charges for past due assessments.

(a) A late payment charge will be imposed on any producer, first handler or importer who fails to make timely remittance to the Board of the total assessments for which they are liable. The late payment will be imposed on any assessments not received within 30 calendar days of the date when assessments are due. This one-time late payment charge will be 5 percent of the assessments due before interest charges have accrued.

(b) In addition to the late payment charge, 1 percent per month interest on the outstanding balance, including any late payment and accrued interest, will be added to any accounts for which payment has not been received within 30 calendar days of the date when assessments are due. Interest will continue to accrue monthly until the outstanding balance is paid to the Board.

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EXHIBIT D

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March 26, 2020

Mr. Robert L. Redding, Jr.
Washington, D.C. Representative
National Pecan Federation
313 Massachusetts Ave, NE
Washington, DC 20002

Mr. Redding,

I have been asked by the National Pecan Federation to provide information relative to the size of the US pecan crop, the number of imported pecans entering the country and their impact on the US Pecan Industry. Throughout the course of this letter, all of the data presented will have been gleaned from official USDA data, both National Ag Statistics Service (NASS) and Foreign Ag Statistics (FAS), all of which is publicly available. To ensure that there is no overlap of crop years, the data is presented based on USDA crop years; October 1 – September 30 per NASS crop production year and August 1 – July 31 for FAS export/import year. This makes it very easy to verify the data used and my conclusions.

Unlike the almond and walnut industries which have been operating under a Federal Marketing Order for decades and have readily available crop data, until only recently, the Pecan Industry had neither. As such, the only available data had to come from either the USDA, Customs or the Department of Commerce. The data was not readily available in a user-friendly format and due to the difference in reporting periods/crop years, analysis was difficult and often confusing. For over thirty-three years, I have been collecting and analyzing the pecan data collected by the aforementioned agencies, putting it into an easily understandable format and using it to analyze the pecan market. In 2000, I started a marketing and consulting company to provide the pecan industry, and its customers, with the best possible market information. This included the development of a website where the information could be easily accessed at no charge to the user. As a result, the data has been accessed by academia, the media, foreign governments, financial institutions, industry associations, law firms, etc. I have published numerous papers on pecan markets, new market development, new product development, supply, consumption and market trends. My data has been used by the *Wall Street Journal*, the *New York Times*, the *Dallas Morning News*, the *Times Picayune*, *Pecan South Magazine*, the *Georgia Pecan Grower*, and many more. Twice my data has been highlighted on the front page of the *Wall Street Journal*, and in 2011, my data, along the *Wall Street Journal* article about it, forced the USDA FAS to correct an entire year's worth of pecan export/import data. Both *US Business Executive* and *Food & Drink* magazines have done feature articles on my company and what it does. Based on my knowledge of the industry,

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and my willingness to share that knowledge freely with the rest of the industry, I have been elected by my peers to both the Board of Directors of the National Pecan Sheller's Association and The American Pecan Council. I have trained USDA Market News personnel in data collection and analysis, consulted for foreign governments (China and South Africa), fortune 500 companies and have consulted with, and testified as an expert witness for, several law firms. During that time, in addition to serving as the President of Nature's Finest Foods, Ltd., I have been employed by Navarro Pecan Company, currently serving as their Vice President. Being one of only two major shellers to process native pecans, we have a unique insight into the Central region's production and how production in that region has been severely underreported.

With respect to the data, it is important to note that **ALL** USDA pecan crop production estimates are underestimated. There are two reasons for this. While all of the nation's almond and walnut production is confined to California, pecans are grown in sixteen states. However, the USDA only collects data from five of them. While those five states produce approximately 80% of the pecans grown in the US, on a 300-million-pound crop, that means that 60 million pounds are not being counted. Further, because 10 to 15% of the crop is comprised of native, or wild nuts, that part of the crop may or may not come to market. Its collection is based solely on price as those nuts must be harvested by hand. If the price does not justify the cost of collection, the nuts will not come to market. Most natives are grown in pastures, back yards and along riverbeds. As such, they come to the sheller or accumulator in small pick-up trucks and are therefore not recorded as entering commerce. To reiterate, the USDA NASS is **always** underreporting US pecan production.

Since 2007, when China became heavily invested in the US pecan market, their purchases have become a significant part of the industry's income. In addition, due to the higher prices paid by the Chinese, returns to the grower have increased dramatically leading to an increase in plantings, not only in the US, but in Mexico, South Africa, Argentina, Australia and China; the US and Mexico accounting for over 90% of the world's production. As such, when comparing data, it is best to look at recent production trends, preferably the last five to eight years. In doing so, both 2012 and 2018 should be eliminated from the comparison; 2012 because the USDA NASS did not publish a final crop number that year (no congressional funding) and 2018 because *Hurricane Michael* destroyed approximately 60 million pounds of the Georgia crop.

I have provided the following charts to illustrate the issues being addressed. Unlike almond crop size, which is reported in 'kernel' pounds, or walnut crop information that is reported in 'inshell' tons, pecan crops are reported in 'inshell' pounds. This makes year to year comparison easier and uniform. Because much of the data provided by the USDA NASS and FAS refers to kernels (i.e. kernel imports, kernel

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exports, kernels in Cold Storage), any data referring to kernels must be converted to inshell pounds. With the creation of the American Pecan Council, the Federal Marketing Order that created the Council established the meat to kernel conversion rate at 50%. For the purposes of this document, all USDA NASS and FAS kernel data has been converted to inshell using the 50% conversion rate.

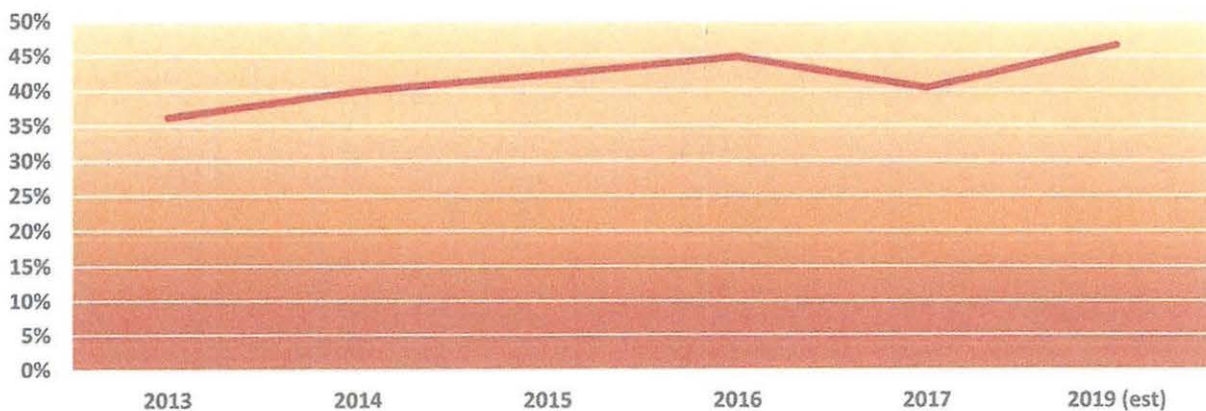
US Crop vs Net Imports

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 (est.) |
|--------------------|---------|---------|---------|---------|---------|---------|-------------|
| US Crop | 266,330 | 264,150 | 254,290 | 268,770 | 304,850 | 242,930 | 264,500 |
| Net Imports | 150,408 | 174,993 | 185,989 | 218,070 | 205,823 | 266,748 | 230,000 |
| Total | 416,738 | 439,143 | 440,279 | 486,840 | 510,673 | 509,678 | 494,500 |
| % Imports to Total | 36% | 40% | 42% | 45% | 40% | 52% | 47% |

NOTE: All figures are in millions of pounds and are rounded to the nearest thousand. Imports only include shipments from Mexico as they account for well over 99% of all pecan imports. The net import figure is determined by subtracting US Inshell exports to Mexico, as reported by FAS, from Mexican imports as reported by FAS.

Based on the above data, without excluding the anomalous 2018 crop, Mexican imports accounted for 43.42% of the total new crop available for sale in the US. Removing 2018, that figure drops to 41.79%.

Net Mexican Imports as a Percent of Available New Crop



1505 Paramount Parkway, Batavia, IL 60510 Ph: 630-879-5200 Fax: 630-879-5204

All quotes subject to our final confirmation. Prices subject to change without notice

Nature's Finest Foods, Ltd.

...Specializing in the marketing of tree nuts!_____

It is important to note that the method I used to determine net imports is the only reliable way to do so as the US Commerce Department, Census Bureau data, is incomplete. This is because there are only two harmonized (HS) codes for pecans: 290-1000 for inshell and 290-1500 for kernels. Due to the difference in production cost between the US and Mexico, many US processors, and some Mexican, purchase US inshell for processing in Mexico and then resale in the US. This results in an overcounting of supply as the US inshell sent to Mexico for shelling is counted as an export and the kernels, when they come back to the US for sale, are counted as an import. In essence, Census is counting the same US product twice. Since Mexico has outproduced the US over the past six years, there is no reason for them to purchase US inshell other than to shell it and sell it back into the US market. There is an urgent need for an HS code to cover this transaction and eliminate the double counting.

There is another error in the Census data. For a variety of reasons, it is more economical for Mexican growers to ship their inshell to China out of US ports rather than Mexican. When Mexican inshell crosses the border for shipment to China, it is counted as an import then recounted as an export when it leaves the US port; another double counting of product, but in this case, the product isn't even US product. Again, this is another example of incorrect data and an urgent need for another HS code to handle pecans simply transiting the US.

In conclusion, it is imperative that the USDA understand the limitations imposed on our industry when trying to justify the need for a check-off program and the make-up of the board should it be implemented. Because of the way the USDA collects their data and the way FAS records imports and exports, ***all US production data is understated and all FAS import data is overstated***. As mentioned during our recent telephone conversation, should you feel it helpful for me to travel to Washington to meet with the USDA, or to testify as to the veracity of the data presented, I would be more than happy to do so.

Should you have any questions, please do not hesitate to contact me at 847-436-1812.

Respectfully,



Daniel J. Zedan
President Nature's Finest Foods, Ltd.
Vice President Navarro Pecan Company

Biography –

Daniel J. Zedan

President
Nature's Finest Foods, Ltd.
Vice President Navarro Pecan Co.
1505 Paramount Parkway
Batavia, IL 60510

A 1973 Graduate of the US Merchant Marine Academy, Dan is the founder of Nature's Finest Foods, Ltd and has over 34 years of experience in the tree nut industry. He was formerly the Vice President of NYM Marketing Company, Schaumburg, IL and is currently serving as the Vice President/Director of New Market Development for Navarro Pecan Company, Corsicana, TX. While serving as the Secretary of the National Pecan Sheller's Association, he was instrumental in the development of the first industry-wide research, marketing and statistics programs. He currently serves on the Board and chairs the Standards Development Committee. Recently elected to the newly established American Pecan Council, he serves on the Council's Board of Directors and is a member of the Council's Industry Relations Committee. A published author, he has presented numerous papers on market analysis, new market development and food safety. While the company's primary focus is that of supplying high quality tree nuts to industrial ingredient users, he also serves as a consultant to various food companies, news organizations, financial institutions and governmental bodies in the areas of new market development, new product development, market analysis and food safety.

In 2001, after more than 28 years of service, Dan retired as a Captain from the US Coast Guard Reserve and is married to the former Judith Ann Begy. He has five children, 21 grandchildren and 2 great grandchildren.

EXHIBIT E

From: Lenny Wells <lwells@uga.edu>

Subject: pecan yield estimations

Date: March 24, 2020 at 10:16:59 PM EDT

To: "Paulquiros07@gmail.com" <Paulquiros07@gmail.com>

Hi Paul

With regard to making estimates of pecan yield for future outlook, I would always recommend using the average of multiple years. Due to the perennial nature of pecan trees, we require at least three years of research data before our work is considered publishable even if yield is not taken. When yield is measured for an experiment we go even longer, usually 5 to 10 years to provide adequate representation of the trees' yield potential. I would suggest using at least 7 years. That being said, I would exclude the 2018 crop year from any estimated projections of Georgia or U.S. pecan production as a result of the impact of Hurricane Michael on the 2018 Georgia crop.

As you know, GA is historically the nation's leading state for pecan production. Prior to Hurricane Michael, estimates of the Georgia crop for 2018 were 120-125 million lbs. The crop was already made and we were literally a few days away from harvest when the hurricane struck. The damage and crop loss was unprecedented for our state and as a result for the U.S. pecan industry. Though we've had localized hurricane and tropical storm damage before, a hurricane this extensive in its damage is highly abnormal for Georgia because most of the state's pecan industry lies well inland and usually out of the reach of such damaging winds. The direct hit from Hurricane Michael not only caused direct loss of trees and green, unripened nuts that were blown from the tree, but many farmers were also unable to harvest their nuts because they could not move the limbs and trees out of the way without running over and destroying much of the crop or ripened nuts which had blown from the tree as well. As a result we lost nearly ½ the state's crop that year (down to 67 million lbs), which had a large impact on the volume the U.S. crop.

In my opinion, you would get the best estimate of U.S. crop potential by taking the average yield for at least 7 years using years 2012-2019, with the exclusion of 2018, which I would consider an anomaly.

---Lenny

Lenny Wells
Professor/Pecan Horticulturist
University of Georgia
Department of Horticulture
4604 Research Way
Tifton, GA 31793



EXHIBIT F

<http://afcerc.tamu.edu>

A research and outreach service of  AgriLIFE RESEARCH & EXTENSION
Texas A&M University

March 31, 2020

Mr. Robert L. Redding, Jr.
Washington, DC Representative
National Pecan Federation
313 Massachusetts Avenue
Washington, DC 20002

Dear Mr. Redding:

We are Co-Directors of the Agribusiness, Food, and Consumer Economics Research Center (AFCERC) in the Department of Agricultural Economics at Texas A&M University. Texas is one of the three largest states in terms of U.S. pecan production. As such, over the years we have studied pecans because of the importance of this crop to Texas agriculture. We recently completed a research report for the American Pecan Council entitled "Economic Benchmark Model and Analysis of the Effects of the Chinese Tariff on the U.S. Pecan Industry" in December 2019. In addition, we have written several papers dealing with the demand for pecans and the Texas pecan checkoff program. We each have over 35 years of experience in the field of agricultural economics (specifically marketing). Our vitae are enclosed as attachments to this letter which includes various project reports and peer-reviewed academic publications.

We have been asked by the National Pecan Federation to provide information about the size and value of the U.S. domestic pecan crop as well as pecans imported into the United States. We have gathered this information in the course of our academic work as well as to conduct the aforementioned research project funded by the American Pecan Council. All of the information gathered is publicly available, particularly from the National Agricultural Statistical Service (NASS), the Foreign Agriculture Service (FAS), and the Economic Research Service of the U.S. Department of Agriculture.

The information requested is summarized in the attached Excel file. We provide data for the marketing years 2009/2010 through 2018/2019, a span of ten years. The data actually are available back to 1988/1989, but we wish to capture *current* market trends concerning pecan imports from Mexico and U.S. pecan production. Pecan production is highly variable from year to year due to the alternate bearing behavior of pecan trees (on/off production behavior). Alternate bearing is a biological phenomenon where trees bear heavy and light crops in alternate years. The consequence is a high degree of year-to-year variability in U.S. pecan production. The variability in production is transmitted through the supply chain to processing and handling and all the way to end uses and prices. Because of the alternate bearing phenomenon, to capture appropriately current market trends, we believe ten years of historical information are necessary. Ten years of data from a statistical point of view affords more precision than fewer years.

"From the Fields of Producers ... to the Plates of Consumers."

In addition, the United States exports primarily in-shell pecans to Mexico. The in-shell pecans are then shelled in Mexico and the pecan meat is mostly shipped from Mexico back to the United States. To avoid double counting in reporting the in-shell basis of pecan imports from Mexico, we net out of the that data the U.S. exports of in-shell pecans to Mexico which gives the “net imports” of pecans from Mexico.

In the attached Excel file, for marketing years 2009/2010 to 2018/2019 (most recent data available) we provide the **volume** of net imports of pecans from Mexico and U.S. production on an in-shell basis. We also provide the **value** of net imports from Mexico and U.S. production on an in-shell basis. We then calculate on a volume basis the percentage of net imports of pecans from Mexico relative to the sum of net imports of pecans from Mexico and U.S. pecan production over those marketing years. We also make the same calculation on a value basis over the same marketing years.

The 2018/2019 marketing year was not for U.S. pecan production given the damage caused by Hurricane Michael to a large area of production in those years. As well, as is well known to industry analysts, the data from the National Agricultural Statistical Service (NASS) for the U.S. pecan crop for marketing year 2012/2013 are suspect. Due to the lack of funding from Congress, NASS did not publish a final crop number for that marketing year. Given these circumstances, in order to minimize the impact of outliers, the median is the preferred measure of central tendency rather than the mean or average or the Olympic average. On a volume (in-shell) basis, the median import share is 38.8 percent, and the median U.S. crop share is 61.2 percent. The mean (or average) and the Olympic average of the past ten years for the import share and the U.S. crop share are not much different. The mean (or average) the import share is 39.4 percent and the mean U.S. crop share is 60.6 percent. Further, the Olympic averages of the import share and U.S. crop share are 38.6 percent 61.4 percent, respectively.

However, on a value (in-shell) basis, the median import and U.S. product shares over the same ten year period are 24.3 percent and 75.7 percent, respectively. The mean (or average) and the Olympic average over that period are similar to the respective medians. The average import and U.S. crop shares are 26.1 percent and 73.9 percent, respectively. Further, the Olympic average import and U.S. crop shares are 25.0 percent and 75.0 percent, respectively.

Bottom line, the shares based on value are noticeably different than the shares based on volume. On the basis of volume (in-shell), the import share ranges from 38.6 percent to 39.4 percent while the U.S. crop share ranges from 60.6 percent to 61.4 percent. On a value basis (in-shell), however, the import share varies from 24.3 percent to 26.1 percent while the U.S. crop share varies from 73.9 percent to 75.7 percent.

In summary, on the basis of volume (in-shell), the import share of pecans is roughly 40 percent and the U.S. pecan crop share is roughly 60 percent. On the basis of value (in-shell), the pecan import share is close to 25 percent and the U.S. pecan crop share is close to 75 percent. These respective percentages are robust over the mean, median, and Olympic average over the past ten years.

Sincerely,



Regents Professor and Executive Professor
Co-Director of the Agribusiness, Food, and Consumer Economics Research Center (AFCERC)
Holder of the Southwest Dairy Marketing Endowed Chair
Department of Agricultural Economics, Texas A&M University, College Station, TX



Dr. Gary W. Williams
Professor of Agricultural Economics
Co-Director, Agribusiness, Food, and Consumer Economics Research Center (AFCERC)
Faculty Member, Bush School of Government and Public Service
Senior Scientist, Norman Borlaug Institute for International Agriculture
Department of Agricultural Economics, Texas A&M University, College Station, TX

INFORMATION CONCERNING NET IMPORTS AND US PRODUCTION

EXHIBIT F

IN-SHELL BASIS

MARKETING YEARS 2009/2010 TO 2019/2020

| MARKETING YEAR | NET IMPORTS FROM MEXICO | VALUE OF NET IMPORTS FROM MEXICO | PRICE PER POUND NET IMPORTS FROM MEXICO | US CROP UTILIZED PRODUCTION | US CROP PRICE PER POUND | US CROP VALUE OF UTILIZED PRODUCTION |
|----------------|-------------------------|----------------------------------|---|-----------------------------|-------------------------|--------------------------------------|
| | IN-SHELL | IN-SHELL | IN-SHELL | IN-SHELL | IN-SHELL | IN-SHELL |
| | 1,000 lbs | 1,000 \$ | \$/lb | 1,000 lbs | \$/lb | 1,000 \$ |
| 2009 | 141,352 | \$108,669 | \$0.77 | 302,020 | \$1.43 | \$430,379 |
| 2010 | 152,735 | \$117,334 | \$0.77 | 293,740 | \$2.30 | \$674,721 |
| 2011 | 134,706 | \$186,001 | \$1.38 | 269,700 | \$2.43 | \$655,910 |
| 2012 | 141,517 | \$125,780 | \$0.89 | 302,300 | \$1.58 | \$476,123 |
| 2013 | 160,600 | \$138,203 | \$0.86 | 266,330 | \$1.73 | \$460,485 |
| 2014 | 176,376 | \$177,002 | \$1.00 | 264,150 | \$1.96 | \$516,677 |
| 2015 | 197,335 | \$236,889 | \$1.20 | 254,290 | \$2.20 | \$560,201 |
| 2016 | 230,291 | \$318,637 | \$1.38 | 268,770 | \$2.59 | \$696,921 |
| 2017 | 216,758 | \$266,938 | \$1.23 | 304,850 | \$2.33 | \$710,301 |
| 2018 | 277,640 | \$354,899 | \$1.28 | 242,930 | \$1.75 | \$425,370 |
| 2019 | | | | 264,500 | \$1.77 | \$468,165 |

| MARKETING YEAR | VOLUME BASIS | | | VALUE BASIS | | |
|----------------|-----------------------------------|--------------------------------|--------------------|-----------------------------------|--------------------------------|--------------------|
| | US CROP + NET IMPORTS FROM MEXICO | % IMPORTS FROM MEXICO TO TOTAL | % US CROP TO TOTAL | US CROP + NET IMPORTS FROM MEXICO | % IMPORTS FROM MEXICO TO TOTAL | % US CROP TO TOTAL |
| | IN-SHELL | IN-SHELL | IN-SHELL | IN-SHELL | IN-SHELL | IN-SHELL |
| | 1,000 lbs | % | % | 1,000 lbs | % | % |
| 2009 | 443,372 | 31.88 | 68.12 | \$539,048 | 20.16 | 79.84 |
| 2010 | 446,475 | 34.21 | 65.79 | \$792,055 | 14.81 | 85.19 |
| 2011 | 404,406 | 33.31 | 66.69 | \$841,911 | 22.09 | 77.91 |
| 2012 | 443,817 | 31.89 | 68.11 | \$601,903 | 20.90 | 79.10 |
| 2013 | 426,930 | 37.62 | 62.38 | \$598,688 | 23.08 | 76.92 |
| 2014 | 440,526 | 40.04 | 59.96 | \$693,679 | 25.52 | 74.48 |
| 2015 | 451,625 | 43.69 | 56.31 | \$797,089 | 29.72 | 70.28 |
| 2016 | 499,061 | 46.14 | 53.86 | \$1,015,558 | 31.38 | 68.62 |
| 2017 | 521,608 | 41.56 | 58.44 | \$977,239 | 27.32 | 72.68 |
| 2018 | 520,570 | 53.33 | 46.67 | \$780,269 | 45.48 | 54.52 |
| MEDIAN | 445,146 | 38.83 | 61.17 | \$786,162 | 24.30 | 75.70 |
| MEAN | 459,839 | 39.37 | 60.63 | \$763,744 | 26.05 | 73.95 |
| OLYMPIC AVE | 459,047 | 38.56 | 61.44 | \$760,354 | 25.02 | 74.98 |

DATA FOR NET IMPORTS COME FROM FAS
 DATA FOR US PRODUCTION COME FROM NASS

ABRIDGED CURRICULUM VITA
(as of February 17, 2020)

NAME: Oral Capps, Jr.

CURRENT TITLE: Executive Professor and Regents Professor
Holder of the Southwest Dairy Marketing Endowed Chair
Co-Director Agribusiness, Food, and Consumer Economics Research
Center (AFCERC)
371C AGLS
2124 TAMU
Department of Agricultural Economics
Texas A&M University
College Station, TX 77843-2124
Ph: (979) 845-8492; Fax: (979) 845-6378; email: ocapps@tamu.edu

EDUCATION: B.S. Mathematics, Virginia Tech, 1975
M.S. Agricultural Economics, Virginia Tech, 1977
M.S. Statistics, Virginia Tech, 1979
Ph.D. Agricultural Economics, Virginia Tech, 1979

BIOGRAPHICAL SKETCH:

Dr. Capps is a demand and price analyst, with particular expertise in econometric modeling and forecasting methods. He is a nationally and internationally recognized leader in demand analysis, specializing in working with large databases. Applied research areas include analyses of expenditure patterns of pre-prepared foods and foods eaten away from home, analyses of health and nutrition issues, uses of scanner-derived information for managerial decision-making in food retailing, and analyses of regional, national, and international markets for the agricultural, agribusiness and financial sectors. In addition, Dr. Capps specializes in unilateral price effects of mergers and acquisitions, and evaluations of commodity checkoff programs.

Currently Executive Professor, Regents Professor and holder of the Southwest Dairy Marketing Endowed Chair in the Department of Agricultural Economics at Texas A&M University as well as Co-Director of the Agribusiness, Food, and Consumer Economics Research Center (AFCERC), Dr. Capps was educated at Virginia Tech. He earned a B.S. degree in Mathematics in 1975, a M.S. degree in Agricultural Economics in 1977, a second M.S. degree in Statistics in 1979, and a Ph.D. degree in Agricultural Economics in 1979. He has authored 152 refereed journal articles, and co-authored four books, *Food Demand Analysis: Implications for Future Consumption*; *Introduction to Agricultural Economics, Seventh Edition*; *Economic Impact of Country-of-Origin Labeling on the U.S. Beef Industry*; and *Changes in the Sheep Industry in the United States: Making the Transition from Tradition*. Another book, *A Practical Guide to Applied Econometrics Using SAS*, is in process

and is expected to be published in 2020. Additionally, he has produced a series of detailed notes to accompany the seminars delivered on behalf of The SAS Institute, Inc. (SAS) entitled, *An Introduction to Applied Econometrics* and *Advanced Topics in Applied Econometrics*. From 2008 to present, he has conducted nearly 70 seminars in applied econometrics for the SAS Institute, Inc. From 1995 to 2014, Dr. Capps conducted 65 seminars in applied econometrics, time-series analysis, and forecasting for the National Association of Business Economics (NABE). As well, he was among a group of 60 business economists who assisted in the development of the Certified Business Economist (CBE) program recently launched by NABE in 2015. Finally, Dr. Capps is Co-Founder (in 2001) and Managing Partner of Forecasting and Business Analytics, LLC, (FABA) a consulting firm specializing in the use of quantitative methods to address economic problems.

In 1995, Dr. Capps was honored at Texas A&M University with the Association of Former Students Distinguished Achievement Award for Teaching. In 1997 and in 2010, he was the recipient of the *Journal of Food Distribution Research* Outstanding Journal Article Award. In 1999, he received recognition via the Vice Chancellor's Award in Excellence for Team Research at Texas A&M University. In 1999, Dr. Capps was the recipient of the American Agricultural Economics Association Distinguished Teaching Award, and a co-recipient of the Applied Consumer Economics Award given by the American Council on Consumer Interests. In 2000, he was the co-recipient of the *Agricultural and Resource Economics Review* Outstanding Journal Article Award. In 2001, Dr. Capps received the Frank Panyko Distinguished Service Award from the Food Distribution Research Society. In 2002, Dr. Capps was bestowed the Vice Chancellor's Award in Excellence for Research at Texas A&M University. In 2003, Dr. Capps was the recipient of The Association of Former Students Distinguished Achievement Award for Teaching at the College level. Further, he was a Fish Camp namesake by students at Texas A&M University in 2004. In 2006, Capps was appointed to the National Academies Committee on the Economic Development and Current Status of the Sheep Industry in the United States. In 2007, Dr. Capps also was appointed to the National Beef Demand Study Group. Additionally, Dr. Capps was one of five co-recipients of the 2007 AAEA President's Award. In February 2009, Dr. Capps received the SAEA Lifetime Achievement Award. In March 2011, Dr. Capps received the Vice Chancellor's Award in Excellence for Industry/Agency/University/Association Partnerships. In June 2011, Dr. Capps was recognized by the Western Agricultural Economics Association with the Distinguished Scholar Award. In August 2011, Dr. Capps was invited to join the Economics Advisory Council of the Alliance for Potato research and Education. In November 2011, Dr. Capps was bestowed the title of Regents Professor by the Board of Regents at Texas A&M University. In 2014, Dr. Capps was recognized as a Fellow by the *Agricultural and Resource Economics Review*. In 2015, Dr. Capps was recognized as the recipient of The Association of Former Students Distinguished Achievement Award for Teaching at the University level. In July 2015, he was recognized as the co-recipient of the *Journal of Agricultural and Resource Economics* Outstanding Journal Article Award. In October 2015, Dr. Capps was bestowed the title of Certified Business Economist™. Currently, only a handful number of economists possess this title. In 2018, Dr. Capps was recognized as the co-recipient of the FDRS Presidential Award for Excellence in Research and Communication.

Dr. Capps served on the Editorial Board of the Agricultural and Applied Economics Association, was Past President of the Southern Agricultural Economics Association, and was Past President of the Food Distribution Research Society. Currently, Dr. Capps is a Seminar Leader for the National

Association of Business Economics (NABE); in this capacity he has conducted numerous seminars in applied econometrics and forecasting since 1995. Additionally, he is a member of the Editorial Board for *Business Economics*, the professional publication of NABE. Capps also is a member of the Editorial Board for the *Journal of Agricultural and Resource Economics*. Beginning in November 2008, he began a partnership with SAS Institute, Inc., conducting Business Knowledge Series seminars in applied econometrics. He has served or is currently serving as a consultant to various firms, commodity boards, and law offices.

Dr. Capps currently lives in College Station, Texas, with his wife and two sons. He is an avid Major League Baseball fan, particularly of the Baltimore Orioles. Finally, Dr. Capps is a survivor of the San Francisco earthquake on October 17, 1989 and a survivor, along with his wife Debbie, of the terrorist attack on the New York World Trade Center on September 11, 2001.

ACADEMIC APPOINTMENTS:

| | |
|-----------------|---|
| 2011 to present | Regents Professor, Department of Agricultural Economics, Texas A&M University |
| 2009 to present | Executive Professor, Department of Agricultural Economics, Texas A&M University |
| 2009 to present | Co-Director, The Agribusiness, Food, and Consumer Economics Research Center, Department of Agricultural Economics, Texas A&M University |
| 1989 to 2009 | Professor, Department of Agricultural Economics, Texas A&M University |
| 1994 to 2000 | Graduate Recruitment Coordinator, Department of Agricultural Economics, Texas A&M University |
| 1986 to 1989 | Associate Professor, Department of Agricultural Economics, Texas A&M University |
| 1984 to 1986 | Associate Professor, Department of Agricultural Economics and Department of Statistics, Virginia Polytechnic Institute and State University |
| 1985 | Visiting Professor, Department of Agricultural and Applied Economics, University of Minnesota |
| 1979 to 1984 | Assistant Professor, Department of Agricultural Economics and Department of Statistics, Virginia Polytechnic Institute and State University |

PROFESSIONAL AWARDS AND RECOGNITION:

Research

Applebaum Scholarship Award Winner, Food Distribution Research Society, 1979 (one awarded annually)

American Agricultural Economics Association Dissertation Award, 1980 (three awarded annually)

Major Professor of the Recipient of the American Agricultural Economics Association M.S. Thesis Award, 1981, (three awarded annually)

Recipient of the *Journal of Food Distribution Research* Outstanding Article Award, 1997, "Does Engel's Law Extend to Food Away from Home?"

Co-recipient of Vice Chancellor's Award in Excellence for Team Research, Texas A&M University, 1999
Co-recipient of the 1999 Applied Consumer Economics (ACE) Award presented by the American Council on Consumer Interests, "The Effects of Consumer Label Use on Diet Quality: An Endogenous Switching Regression Analysis"
Co-recipient of *Agricultural and Resource Economics Review* Outstanding Journal Article Award, 2000, "Examining Factors Affecting Packer Choice of Slaughter Cattle Procurement and Pricing Methods"
Recipient of the Vice Chancellor's Award in Excellence for Research, Texas A&M University, 2002
Recipient of the 2009 SAEA Lifetime Achievement Award
Co-recipient of the *Journal of Food Distribution Research* Outstanding Article Award, 2010, "The Effects of New Product Beef in Guatemala"
Recipient of the Vice Chancellor's Award in Excellence for Industry/Agency/University/Association Partnerships, 2011
Recipient of the 2011 WAEA Distinguished Scholar Award
Fellow, *Agricultural and Resource Economics Review*, 2014
Co-recipient of the *Journal of Agricultural and Resource Economics* Outstanding Article Award, 2015, "Partial Versus General Equilibrium Calories and Industry Revenue Effects of a Sugar-Sweetened Beverage Tax"
Certified Business Economist™, 2015
Co-recipient of the Food Distribution Research Society Presidential Award for the Outstanding Research Paper, 2018, "The Use of Time-Series Analysis in Examining Food Safety Issues: The Case of the Peanut Butter Recall"

Teaching

Gamma Sigma Delta Outstanding Teaching Award, Virginia Tech, 1983 (one awarded annually)
Certificate of Teaching Excellence, College of Agriculture, Virginia Tech, 1984, (one/two awarded annually)
Faculty Recognition Award, Graduate Student Association, Department of Agricultural Economics, Texas A&M University, 1988, 1990, 1993, 1994 (one awarded annually)
Recipient of the Association of Former Students Faculty Distinguished Achievement Award for Teaching, Texas A&M University, 1995
Recipient of the AAEA Distinguished Teaching Award for Graduate Teaching with Ten or More Years as a Full-Time Professional, 1999
Recipient of the Association of Former Students Faculty Distinguished Achievement Award for Teaching, Texas A&M University, 2003
Recipient of the Association of Former Students Faculty Distinguished Achievement Award for Teaching, Texas A&M University, 2015

Service

President, Food Distribution Research Society, 1985-86
President, Southern Agricultural Economics Association, 1992-93
Member, Editorial Board, *American Journal of Agricultural Economics* (1992-97)
Associate Editor, *Choices: The Magazine of Food, Farm, and Resource Issues* (2004-07)
President, AAEA Foundation Endowment Committee (2006-08)

Member, Editorial Board, *Agribusiness: An International Journal* (2007-15)
Member, Editorial Board, *Business Economics* (2007 to present)
Member, Editorial Board, *Journal of Agricultural and Resource Economics* (2015 to present)
Recipient of the Frank Panyko Distinguished Service Award presented by the Food Distribution Research Society, 2001
Fish Camp Namesake, Texas A&M University, 2004
Appointed to the National Academies, 2006-07, Committee on the Economic Development and Current Status of the Sheep Industry in the United States
Co-recipient of the 2007 AAEA President's Award: "For your initiative, risk, imagination, and labor in improving, redesigning, and expanding the AAEA's outreach organ, *Choices*, and in so doing, communicating the economic implications of food, farm, resource, and rural community issues to a wider audience"
Appointed to the Economics Advisory Council of the Alliance for Potato Research and Education, 2011 to 2014
Recipient of the Regents Professor Service Award, Board of Regents, Texas A&M University, 2011

LIST OF COURSES TAUGHT:

Undergraduate Courses

Elementary Econometrics
Introduction to Agricultural Economics
Economic Analysis for Agribusiness and Management
Statistics for Economists

Graduate Courses

Consumer Demand Analysis for Food and Agricultural Products
Applied Econometrics
Fundamentals of Agribusiness and Managerial Economics
Business Forecasting: A Practical Guide

PUBLICATION RECORD:

| | |
|-------------------------------|-------------------------------------|
| 152 Refereed Journal Articles | 87 Published Abstracts |
| 14 Refereed Proceedings | 20 Popular Articles |
| 15 Book Chapters | 156 Research Reports/Working Papers |
| 6 Books and 1 in progress | 13 Agricultural Station Bulletins |
| 5 Book Reviews | |

Google Scholar Citations: 5,423 as of February 17, 2020

h-index: 34

i10-index: 107

According to RePEc/IDEAS rankings, based on the number of citations, I rank in the top 10% out of 57,139 economists globally. I rank in the top 9% in terms of the h-index. In terms of number of research works, I rank in the top 2%, and in terms of number of journal pages, I rank in the top 3%.

KEY PUBLICATIONS SINCE 2010

A. Refereed Journal Articles

- Leister, A., O. Capps, Jr., and C. Parr Rosson III, "The Effects of New Product Beef in Guatemala," *Journal of Food Distribution Research* 41, 2 (2010): 1-11.
- Love, H.A., O. Capps, Jr., and G.W. Williams, "Concentration in the U.S. Beef Packing Industry and Slaughter Cattle Pricing," *Journal of Food Distribution Research* 41, 3 (2010): 25-41.
- Alviola, P.A. and O. Capps, Jr., "Household Demand Analysis of Organic and Conventional Fluid Milk in the United States Based on the 2004 Nielsen Home scan Panel," *Agribusiness: An International Journal* 26, 3 (2010): 369-388.
- Williams, G.W., O. Capps, Jr., and T. Dang, "Does Lamb Promotion Work?" *Agribusiness: An International Journal* 26, 4 (2010): 536-556.
- Dharmasena, S., O. Capps, Jr., and A. Clauson, "Ascertaining the Impact of the 2000 USDA Dietary Guidelines for Americans in the Intake of Calories, Caffeine, Calcium, and Vitamin C from At-Home Consumption of Non-Alcoholic Beverages," *Journal of Agricultural and Applied Economics* 43, 1 (2011): 13-27.
- Williams, G.W. and O. Capps, Jr., "Is the Cotton Checkoff Program Worth the Cost?" *Journal of Cotton Science* 15 (2011): 109-126.
- Kyureghian, G., O. Capps, Jr., and R.M. Nayga, Jr., "A Missing Variable Imputation Methodology with an Empirical Application," *Advances in Econometrics: Missing Data Methods* 27A (2011): 313-337.
- Bouhlal, Y. and O. Capps, Jr., "The Impact of Retail Promotion of Private Label Products: The Case of Processed Cheese," *Agribusiness: An International Journal* 27 (2011): 1-14.
- Dharmasena, S. and O. Capps, Jr., "Intended and Unintended Consequences of a Proposed National Tax on Sugar-Sweetened Beverages to Alleviate the U.S. Obesity Problem," *Health Economics* 21, 6 (2012): 669-694.
- Capps, Jr., O. and R.D. Hanselman, "A Pilot Study of the Market for Energy Drinks," *Journal of Food Distribution Research*, 43, 3 (November 2012): 15-29.
- Bakhtavoryan, R., O. Capps, Jr., and V.S. Salin, "Impact of Food Contamination on Brands: A Demand System Estimation of Peanut Butter," *Agricultural and Resource Economics Review*, 41, 3 (December 2012): 327-339.
- Ishdorj, A. and O. Capps, Jr., "The Effect of Revised WIC Food Packages on Native American Children," *American Journal of Agricultural Economics*, 95, 5 (May 2013): 1266-1272.

- Hernandez, M., S.C. Castillo, and O. Capps, Jr., "Do Marketing Margins Change with Food Scares? Examining the Effects of Food Recalls and Disease Outbreaks in the U.S. Red Meat Industry?" *Agribusiness: An International Journal*, (2013): 426-454.
- Dharmasena, S. and O. Capps, Jr., "Unraveling the Demand for Alternative Functional Beverages in the United States: The Case of Soymilk," *Agricultural and Resource Economics Review*, 43, 1(April 2014): 140-157.
- Bakhtavoryan, R., O. Capps, Jr., and V.S. Salin, "Dynamics of Consumer Response to Food Contamination: The 2007 Peanut Butter Recall," *Journal of Food Distribution Research*, 45, 2 (July 2014): 66-81.
- Bakhtavoryan, R., O. Capps, Jr., and V.S. Salin, "The Impact of Food Safety Incidents across Brands: The Case of the Peter Pan Peanut Butter Recall," *Journal of Agricultural and Applied Economics*, 46, 4 (November 2014): 559-573.
- Dharmasena, S., G. S. Davis, and O. Capps, Jr., "Partial Versus General Equilibrium Calories and Industry Revenue Effects of a Sugar-Sweetened Beverage Tax," *Journal of Agricultural and Resource Economics*, 39, 2 (2014): 157-173.
- Ishdorj, A., O. Capps, Jr., and P.S. Murano, "Investigating the Relationship between Food Pairings and Plate Waste in Elementary School Lunches," *Food and Nutrition Sciences*, 6, (2015): 1029-1044.
- Ishdorj, A., O. Capps, Jr., and P.S. Murano, "Nutrient Density and the Cost of Vegetables from School Lunches," *Advances in Nutrition*, Supplemental Issue, 7 (January 2016): 254S-260S.
- Capps, Jr., O., D. A. Bessler, and G. W. Williams, "The Ramifications of Nearly Going Dark: A Natural Experiment in the Case of Orange Juice Advertising," *Agricultural and Resource Economics Review*, 45, 1(April 2016): 68-97.
- Goodwin, Jr., H. L., O. Capps, Jr., S. Watkins, C. Eagleson, K. Karges, C. Springfield, and N. Shearer, "Poultry Diets Compared for Gross Margin Improvement," *Feedstuffs*, (March 2016), 20-21.
- Capps, Jr., O., H.L. Goodwin, Jr., L. N. Burns, K. Karges, C. Springfield, and N. Shearer, "Determining the Value of Various Ingredient Characteristics and Product Components in Poultry Feed Ingredients," *Feedstuffs*, (April 2016), 34-35.
- Capps, Jr., O., A. Ishdorj, P.S. Murano, and M. Storey, "Examining Vegetable Plate Waste among Elementary School Children in Texas by Diversity and Grade," *Health Behavior and Policy Review*, 3, 5 (September/October 2016): 419-428.
- Dharmasena, D., D. A. Bessler, and O. Capps, Jr., "Food Environment in the United States as a Complex Economic System," *Food Policy* 6 (2016): 163-175.
- Williams, G. W., O. Capps, Jr., and D. Hanselka, "The National Economic Benefits of Food Imports: The Case of U.S. Imports of Hass Avocados from Mexico," *Journal of International Food and Agribusiness Marketing* 29, 2(2017): 139-157.
- Ishdorj, A. and O. Capps, Jr. "The Impact of Policy Changes on Milk and Beverage Consumption of Texas WIC Children" *Agricultural and Resource Economics Review*, 46, 3 (2017):421-442.

- Capps, Jr., O., A. Ahad, and P.S. Murano, "Understanding Spending Habits and Buying Behavior of the American Muslim Community: A Pilot Study," *Journal of Food Distribution Research*, 43 (November 2017): 51-74.
- Williams, G.W., O. Capps, Jr., and D. Hanselka, "National Economic Contributions of Generic Food and Agricultural Product Advertising and Promotion," *Journal of International Food and Agribusiness Marketing*, (2017), published on line November 27, 2017, link <https://doi.org/10.1080/08974438.2017.1402729>.
- Murano, P. S., O. Capps, Jr., and A. Grimajo, "Grapes in School Meals: Impact of Plate Waste on Costs and Consumption," *Journal of Nutritional Health and Food Science*, 6, 1 (2018): 1-9.
- Zheng, W., S. Dharmasena, O. Capps, Jr., and R. Janakiramon, "Consumer Demand for and Effects of Tax on Sparkling and Non-Sparkling Bottled Water in the United States," *Journal of Agribusiness in Developing and Emerging Economies*, 8,3 (2018): 501-517, link <https://doi.org/10.1108/JADEE-09-2017-0089>.
- Bakhtavoryan, R., O. Capps, Jr., A. Dallakyan, and V. Salin, "The Use of Time-Series Analysis in Examining Food Safety Issues: The Case of the Peanut Butter Recall," *Journal of Food Distribution Research*, 49, 2 (2018): 57-80.
- Capps, Jr., O., A. Ishdorj, S. Dharmasena, and M. Palma, "Economic Ramifications of Obesity: A Selective Literature Review," chapter in the *Handbook of Agricultural Economics*, 2018.
- Palma, M.A., Y. Li, C.R. Hall, H. Khachatryan, and O. Capps, Jr., "Measuring Effects of Advertising on Green Industry Sales: A Generalized Propensity Score Approach," *Applied Economics*, DOI:10.1080/000364846.2018.1527448, 51,12 (October 2018):1303-1318.
- Williams, G. W. and O. Capps, Jr., "Generic Promotion of Sorghum for Food and Industrial Uses," *Journal of International Food and Agribusiness Marketing*, DOI:10.1080/08974438.2018.1533510, December 2018.
- Capps, Jr., O., A. Ishdorj, P.S. Murano, L. Field, A. Hutto, and M. Storey, "Waste Not Want Not: Examining Plate Waste of Vegetables in Elementary Schools," *Choices*, First Quarter, 34,1 (2019):1-8.
- Dharmasena, S. and O. Capps, Jr., "Enhancing the Teaching of Product Substitutes/Complements: A Pedagogical Note on Diversion Ratios," *Applied Economics Teaching Resources*, 1,1 (2019):1-14.
- Capps, Jr., O. and R.A. Babula, "Development of a Methodology to Empirically Assess National and Farm-Specific Damages from Contamination of Grain Supply by a Genetically-Engineered Strain," *Journal of Agricultural and Applied Economics*, 51 (2019):495-510, link <https://doi.org/10.1017/aae.2019.16>.
- Williams, G.W. and O. Capps, Jr., "Advertising with Supply Control: Implications of Norwegian Whitefish Export Promotion," *Agricultural and Resource Economics Review*, October 2019, forthcoming.

- Senia, M. C., S. Dharmasena, and O. Capps, Jr., "Can Dietary Fiber Intake Be Increased through Nutritional Education and through Subsidies on Selected Food Products?" *Agricultural and Resource Economics Review*, 84,3 (2019): 448-472.
- Williams, G.W. and O. Capps, Jr., "Generic Promotion of Norwegian Whitefish Exports," *Journal of International Food and Agribusiness Marketing*, 32,1 (2019): 13-29
doi:10.1080/0897/4438.2018.1533510.
- Hu, Y., S. Dharmasena, O. Capps, Jr., and R. Janakiraman, "The Growing Market for Energy and Sports Drinks in the United States: Can Chocolate Milk Remain a Contender?," *Journal of Food Distribution Research*, forthcoming 2020.

B. Other Publications (since 2010)

- Capps, Jr., O., G.W. Williams, and T. Dang, "Effects of Lamb Promotion on Lamb Demand and Imports," AFCERC Commodity Market Research Report No. CM-01-10, January 2010.
- Capps, Jr., O. and V. S. Salin, "Market Research on Promised Land Brand Milk," AFCERC Commodity Market Research Report No. CP-03-10, December 2010.
- Capps, Jr., O. *Advanced Topics in Applied Econometrics*, Business Knowledge Series for the SAS Institute, Inc., December 2010.
- Williams, G.W., O. Capps, Jr., V. S. Salin, S. Dharmasena, L. Higgins, W.J. Thompson, and D. Anderson, "Ethnic Lamb Buying and Preparation Behavior and Preferences," AFCERC Commodity Market Research Report No. CM-01-11, January 2011.
- Capps, Jr., O. and G.W. Williams, "Analyzing the Effectiveness of the Lamb Promotion, Research, and Information Order," AFCERC Commodity Market Research Report No. CM-02-11, January 2011.
- Williams, G.W., O. Capps, Jr., D. Hudson, S. Pan, and J. Robinson, "Cotton Research and Promotion Program: Economic Effectiveness Study," AFCERC Commodity Market Research Report No. CM-3-11, April 2011.
- Capps, Jr., O., V.S. Salin, S. Dharmasena, and R. Hanselman, *Effectiveness of Marketing Order 955 in Promoting Sales of Vidalia Onions*, Report Prepared for the Vidalia Onion Committee, December 2011.
- Capps, Jr., O., A. Ishdorj, P. Murano, L. Field, A. Hutto, and C. Spaulding, "Consequences of Limiting Starchy Vegetables in School Lunches," Report to the Alliance for Potato Research and Education, March 2013.
- Capps, Jr., O., G.W. Williams, and J. Malaga, "Impacts of the Investments Made in Research, Promotion, and Information on Production and End Uses of Sorghum," Research Report to the United Sorghum Checkoff Program (USCP), Agribusiness, Food, and Consumer Economics Research Center, Texas A&M University, Department of Agricultural Economics, July 2013.
- Williams, G.W., O. Capps, Jr., D. Hanselka, and L. Burns, "Economic Benefits of the Expansion of Avocado Imports from Mexico," February 2014 (Part 1) and April 2014 (Part 2), Report to the Mexican Hass Avocado Import Association.

- Williams, G. W., O. Capps, Jr. and S.H. Lee, "The Return to Soybean Checkoff Investments," Report to the Audit and Evaluation Committee, United Soybean Board, St. Louis, MO, July 2014.
- Capps, Jr., O., H.L. Goodwin, and L. N. Burns, "Ascertaining the Value of Components Associated with Poultry Feed Ingredients," Report to H.J. Baker, June 2015.
- Murano, P.S., O. Capps, Jr., and A. Girmaji, "Grapes in School Meals: Impact of Plate Waste upon Costs and Consumption," Report Prepared for the California Table Grape Commission, November 2015.
- Capps, Jr., O., G. W. Williams, and D. Hudson, "Cotton Research and Promotion Program: Economic Effectiveness Study," Report to the Cotton Board, July 2016.
- Williams, G.W., O. Capps, Jr., and D. Hanselka, "The U.S. National and State-Level Benefits of Avocado Imports from Mexico," Report Prepared for the Mexican Hass Avocado Import Association, September 2016.
- Capps, Jr., O., H.L. Goodwin, and L. N. Burns, "Ascertaining the Value of Dairy Feed Ingredients," Report to H.J. Baker, October 2016.
- Capps, Jr., O., G.W. Williams, V.S. Salin, and D.S. Brown, "Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the National Dairy Promotion and Research Program and the Fluid Milk Processor Promotion Program: Report to Congress," Prepared for the U.S. Department of Agriculture, Agricultural Marketing Service (AMS), Report to Congress, November 2016.
- Capps, Jr., O. and G.W. Williams, "Forecasts of Hass Avocado Shipments from Mexico by Size: November 2016 to January 2017," Report Prepared for the Mexican Hass Avocado Import Association, December 2016.
- Williams, G.W., O. Capps, Jr., and D. Hanselka, "The National Economic Contribution of Agricultural Advertising and Promotion," Report Prepared for the Commodity Market Roundtable Committee, April 2017.
- Capps, Jr., O. and G.W. Williams, "Forecasts of Hass Avocado Shipments from Mexico by Size: February 2017 to April 2017," Report Prepared for the Mexican Hass Avocado Import Association, April 2017.
- Capps, Jr., O. and G.W. Williams, "How Effectively Does the Norwegian Seafood Council Promote Norwegian Seafood Exports," Report Prepared for the Norwegian Seafood Council, June 2017.
- Penson, J.B., O. Capps, Jr., C.P. Rosson, and R. Woodward, *Introduction to Agricultural Economics*, Pearson, Seventh Edition, August 2017.
- Capps, Jr., O. and G.W. Williams, "Forecasts of Hass Avocado Shipments from Mexico by Size: August 2017 to October 2017," Report Prepared for the Mexican Hass Avocado Import Association, August 2017.
- Capps, Jr., O., G.W. Williams, and M. Welch, "Producer Return on Investments in Sorghum Research, Promotion, and Information: An Updated Analysis," Research Report Prepared for the United Sorghum Checkoff Program (USCP) Board, November 2017.

- Capps, Jr., O. and G.W. Williams, “2018 Update Report: How Effectively Does the Norwegian Seafood Council Promote Norwegian Seafood Exports? Research Report to the Norwegian Seafood Council, May 2018.
- Williams, G.W. and O. Capps, Jr., “How Effectively Does the Norwegian Seafood Council Promote Norwegian Whitefish Exports? Research Report to the Norwegian Seafood Council, June 2018.
- Capps, Jr., O., G.W. Williams, V.S. Salin, and D.S. Brown, “Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the National Dairy Promotion and Research Program and the Fluid Milk Processor Promotion Program—1995 to 2016,” Prepared for the U.S. Department of Agriculture, Agricultural Marketing Service (AMS), Report to Congress, April 2018.
- Capps, Jr., O., G.W. Williams, V.S. Salin, and D. S. Brown, “Quantitative Evaluation of the Effectiveness of Activities by the National Dairy Promotion and Research Program and the National Fluid Milk Processor Promotion Program—1995 to 2016,” Technical Report to the U.S. Department of Agriculture, Agricultural Marketing Service, July 2018.
- Capps, Jr., O., G.W. Williams, V.S. Salin, and D.S. Brown, “Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the National Dairy Promotion and Research Program and the Fluid Milk Processor Promotion Program—1995 to 2017,” Prepared for the U.S. Department of Agriculture, Agricultural Marketing Service (AMS), Report to Congress, February 2019.
- Capps, Jr., O., “Forecasts of Hass Avocado Shipments from Mexico by Size: November 2018 to January 2019,” Report Prepared for the Mexican Hass Avocado Import Association, February 2019.
- Capps, Jr. O., “A Selective Overview of Panel Data with Applications in SAS,” SAS Global Forum 2019 Dallas, April 2019.
- Williams, G.W. and O. Capps, Jr., “How Effectively Does the Norwegian Seafood Council Promote Norwegian Pelagic Exports?” Research Report to the Norwegian Seafood Council, June 2019.
- Williams, G.W. and O. Capps, Jr., “Economic Benchmark Model and Analysis of the Effects of the Chinese Tariff on the U.S. Pecan Industry, Research Report to the American Pecan Council, December 2019.
- Capps, Jr. O. and G.W. Williams, “Economic Analysis of the Cotton Market Impacts of Ultra-Low Gossypol Cottonseed,” Research Report to Cotton Incorporated, January 2020.

Dr. Gary W. Williams
Professor of Agricultural Economics
Co-Director, Agribusiness, Food, and Consumer Economics Research Center (AFCERC)
Texas A&M University

Current Appointment

Dr. Williams is Professor and Co-Director of AFCERC in the Department of Agricultural Economics at Texas A&M University. He is the AFCERC chief operations officer and leads AFCERC research and outreach projects on commodity and agribusiness markets and policy and international trade. His areas of expertise include commodity promotion programs, international agricultural trade, agricultural policy, marketing, livestock economics, and price analysis.

Education

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| 1981 | Ph.D. Purdue University, Agricultural Economics |
| 1977 | M.S. Purdue University, Agricultural Economics |
| 1974 | B.S. Brigham Young University, Economics |

Appointments

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| 2011- present | Senior Scientist , Borlaug Institute for International Agriculture, College of Agriculture and Life Sciences, Texas A&M University. |
| 2009 - present | Co-Director , AFCERC, Dept. of Ag. Economics, Texas A&M University |
| 2008 - 2018 | Associated Professor , Department of International Affairs, Bush School of Government and Public Service, Texas A&M University |
| 1988 - 2009 | Director , Texas Market Research, Dept. of Ag. Economics, Texas A&M University |
| 1988 - present | Professor , Dept. of Ag. Economics, Texas A&M University |
| 1986 - 1988 | Associate Professor , Dept. of Economics, Iowa State University |
| 1984 - 1988 | Assistant Coordinator , Meat Export Research Center, Iowa State University |
| 1983 - 1986 | Assistant Professor , Dept. of Economics, Iowa State University |
| 1981 - 1983 | Senior Economist , International Agriculture Service, Chase Econometrics |
| 1979 - 1981 | Agricultural Economist , Agricultural and Trade Policy Branch, International Economics Division, Economic Research Service, USDA |
| 1978 - 1979 | Special Assistant to the Deputy Undersecretary of Agriculture for International Affairs and Commodity Programs, USDA |

Selected Awards/Honors

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| 2016 | Appointed Member of the Review Oversight Committee for the Genome Canada funded project: "Application of Genomics to Improve Disease Resilience and Sustainability in Pork Production" |
| 2014 | Appointed Member, National Academy of Sciences Committee on the Future of Animal Science Research. |
| 2010 | Appointed Member, National Academy of Science Project Scoping Committee on the Role of Animal Agriculture in a Sustainable 21st Century Global Food System. |
| 2006 | Appointed Chair, National Academy of Sciences, Committee on the Economic Development of Current Status of the Sheep Industry in the United States. |
| 1999 | "Article of the Year" Northeastern Agric. and Resource Econ. Assoc. for "Examining Packer Choice of Slaughter Cattle Procurement and Pricing Methods." |
| 1998 | Vice Chancellor's Award in Excellence for Team Research, Texas A&M University |
| 1991 | Appointed to Texas Ag. Commissioner's Select Committee on NAFTA. |
| 1992 | Appointed Member, National Academy of Sciences Committee on Livestock Disease Eradication: Bovine Tuberculosis. |
| 1988 | Distinguished Service Award, Meat Export Research Center, Iowa State University. |

Selected Other Professional Contributions

Over \$7.4 million in research project funding; Extensive international work, particularly in Latin America; Over 360 professional papers including over 50 refereed journal articles, 121 research

reports, 113 invited papers, 30 selected papers, and 5 books; International reputation in U.S. and global market analyses of oilseed and products, sheep and lamb, livestock and meat, and commodity checkoff programs; Invited Congressional testimony on trade topics; Member of four National Academy of Sciences Committees (one as chair).

Selected Journal Articles Related to Livestock, Commodity Promotion Programs

- Williams, G.W. and D.P. Anderson, "Growth of the Latin American Livestock Industry: Situation and Challenges," *Choices*, forthcoming.
- Williams, G.W. and O. Capps, Jr., "Generic Promotion of Norwegian Whitefish Exports," *Journal of International Food and Agribusiness Marketing*, forthcoming.
- Williams, G.W. and O. Capps, Jr. 2018. "Generic Promotion of Sorghum for Food and Industrial Uses," *J. International Food and Agribusiness Marketing* 32(1):13-29, 2020.
- Williams, G.W. and O. Capps, Jr., "Advertising with Supply Control: Some Implications of Norwegian Whitefish Export Promotion," *Agricultural and Resource Economics Review*, on-line version published November 8, 2019, 1-28. <https://doi.org/10.1017/age.2019.25>.
- Williams, G.W., O. Capps, Jr., and D. Hanselka. 2018. "The National Economic Contribution of Generic Food and Agricultural Product Advertising and Promotion." *J. International Food and Agribusiness Marketing* 30 (2):191-210.
- Williams, G.W. and J. Luo. 2017. "Exchange Rate Policy and Global Supply Chains: The Case of the Chinese Renminbi and Global Soybean and Products Markets," *Applied Economic Perspectives and Policy* 39(1):177-198.
- Reimer, J., G.W. Williams, R. Dudensing, and H. Kaiser. 2017. "Agricultural Export Promotion and Its Effects on the Broader Economy," *Choices* 32(3), 3rd Quarter.
- Ghosh, S. and G.W. Williams. 2016. "Generic Advertising of U.S. Lamb," *J. International Food and Agribusiness Marketing* 28(4): 373-393.
- Capps, O., D.A. Bessler, and G.W. Williams. 2016. "The Ramifications of Nearly Going Dark: The Case of Orange Juice Advertising," *Ag. and Res. Econ. Review* 45(1): 68-97.
- Goldstein, B., L. D'Abramo, G.F. Hartnell, J. Mench, M. Salman, D. Treacy, B.L. Turner II, G.W. Williams, F Wu. 2015. *Critical Role of Animal Science Research in Food Security and Sustainability*. Washington, D.C.: The National Academies Press.
- Williams, G.W. and O. Capps, Jr.. 2011. "Is the Cotton Checkoff Program Worth the Cost?" *Journal of Cotton Science* 15:106-126.
- Williams, G.W., O. Capps, Jr., and T. Dang. 2010. "Does Lamb Promotion Work?" *Agribusiness: An International Journal* 26 (4):536-556.
- Moore, E.D., G.W. Williams, M.A. Palma, and L. Lombardini. 2009. "Effectiveness of State-Level Pecan Promotion Programs: The Case of the Texas Pecan Checkoff Program," *HortScience* 44(7):1-7.
- Williams, G.W., O. Capps, Jr., and M. A. Palma. 2008. "Effectiveness of Marketing Promotion Programs: The Case of Texas Citrus," *HortScience* 43(2):385-392.
- Williams, G.W., D. Bailey, O. Capps, Jr., L.A. Detwiler, H.S. Glimp, T. Hammonds, D.D. Hedley, H.H. Jensen, and D.L. Thomas. 2008. *Changes in the Sheep Industry in the United States: Making the Transition from Tradition*. Wash., D.C.: The National Academies Press.
- Williams, G.W., C.R. Shumway, and H.A. Love. 2002. "Returns to Soybean Producers from Investments in Promotion and Research," *Ag. and Res. Econ. Rev.* 31(1):97-111.
- Williams, G.W. and O. Capps, Jr. 2006. "Measuring the Effectiveness of Checkoff Programs," *Choices* 21:73-78, 2006.
- Conner, J.R., G.W. Williams, and R.A. Dietrich. 2003. "Cattle and the Environment: What's the Beef?" *Western Economic Forum* 2(2):33-37.

- Capps, O., Jr., H.A. Love, G.W. Williams, W.L. Adams. 1999. "Examining Packer Choice of Slaughter Cattle Procurement and Pricing Methods," *Ag. and Res. Econ. Rev.* 28(1):11-25.
- Williams, G.W. 1999. "Commodity Checkoff Programs as Alternative Producer Investment Opportunities: The Case of Soybeans," *Agribusiness: An Int'l Journal* 15(4): 539-552.
- Williams, G.W. and E.E. Davis, "Lamb Market Structure," *Sheep and Goat Research Journal* 14(1):14-34, 1998.
- Byrne, P.J., R. Tsai, O. Capps, Jr., and G.W. Williams. 1995. "Policy Implications of Trade Liberalization: The Case of Meat Products in Taiwan and South Korea," *Agribusiness: An International Journal* 11(4):297-307.
- Capps, O., Jr., R. Tsai, R. Kirby, and G.W. Williams. 1994. "A Comparison of Demands for Meat Products in the Pacific Rim Region," *Journal of Ag. and Res. Econ.* 19(1): 210-224.
- Williams, G.W. and J.B. Ward. 1994. "Factors Affecting the Use of Cottonseed Meal in Animal Feed Rations: Implications for Marketing and Promotion," *Agribusiness: An International Journal* 10(2):115-130.
- Martin, S.W., G.W. Williams, R.A. Dietrich, P. Genho, W.P Hueschele. R.L. Jones, M. Koller, J.D. Lee, H.C. Lopez, H.W. Moon, R.A. Robinson, P.L. Smith. 1994. *Livestock Disease Eradication: Evaluation of the Cooperative State-Federal Bovine Tuberculosis Eradication Program*. Washington, D.C.: National Academy Press.
- Byrne, P.J., O. Capps, Jr., and G.W. Williams. 1993. "U.S. Demand for Lamb: The Other Red Meat," *Journal of Food Distribution Research* 24(1):69-86.
- Wahl, T.I., D.J. Hayes, and G.W. Williams. 1991. "Dynamic Adjustment in the Japanese Livestock Industry Under Beef Import Liberalization," *Amer. J. Ag. Econ.* 73(1):118-132.
- Hayes, D.J., T.I. Wahl, and G.W. Williams. 1990. "Testing Restrictions on a Model of Japanese Meat Demand," *Amer. J. Ag. Econ.* 72(3):556-566.
- Williams, G.W. 1989. "The Case of U.S. Meat Exports," *J. of Food Dist. Research* 20(1): 12-16.
- Wahl, T.I., G.W. Williams, and D.J. Hayes. 1989. "The 1988 Japanese Beef Market Access Agreement: A Forecast Simulation Analysis," *Agribusiness: An Int'l Journal* 5(4):347-360.
- Sapp, S.G. and G.W. Williams, "The Socio-Economic Issues of Japanese Beef Imports," *Agribusiness: An International Journal* 4(1):64-77, 1988.
- Skold, K.D., G.W. Williams, and M.L. Hayenga. 1987. "Meat Export Marketing: Lessons from Successful Exporters," *Agribusiness: An International Journal* 3(1):83-97, 1987.
- Williams, G.W. 1985. "Returns to U.S. Soybean Export Market Development," *Agribusiness: An International Journal* 1(3):243-263.
- Williams, G.W. 1984. *Do Foreign Market Development Programs Work? The Case of Soybeans and Soybean Products*, FAER-203, Economic Research Service, USDA, Washington, D.C.

Selected Reports to Industry/Government on Commodity Promotion Programs

- Williams, G.W. and D. Hanselka. 2020. Economic Effect of Texas Beef Council's Checkoff Programs," Report to the Texas Beef Council, Austin, Texas.
- Williams, G.W. and O. Capps Jr. 2019. *How Effectively Does the Norwegian Seafood Council Promote Norwegian Pelagic Exports?* Research Report to the Norwegian Seafood Council, Tromso, Norway.
- Williams, G.W. and D. Hanselka. 2019. *Return on Investment in the American Lamb Checkoff Program*, Report to the American Lamb Board, Denver, Colorado.
- Williams, G.W. and O. Capps, Jr. 2018. *How Effectively Does the Norwegian Seafood Council Promote Norwegian Whitefish Exports?* Research Report to the Norwegian Seafood Council, Tromso, Norway.

- Williams, G.W. and O. Capps Jr. 2018. *2018 Update: How Effectively Does the Norwegian Seafood Council Promote Norwegian Seafood Exports?* Research Report to the Norwegian Seafood Council, Tromso, Norway.
- Capps, Jr., O., G.W. Williams, and J.M. Welch. 2017. *Producer Return on Investments in Sorghum Research, Promotion, and Information: An Updated Analysis*, Research Report to the United Sorghum Checkoff Program Board, College Station, Texas.
- Capps, Jr., O. and G.W. Williams. 2017. *How Effectively Does the Norwegian Seafood Export Council Promote Norwegian Seafood Exports?* Research Report to the Norwegian Seafood Council, Tromso, Norway.
- Williams, G.W., O. Capps, Jr., D. Hanselka, 2017. *The National Economic Contribution of Agricultural Advertising and Promotion*, Research Report to the Commodity Roundtable Marketing and Communications (CRMC) Group, College Station, Texas.
- Capps, Jr., O., G.W. Williams, and D. Hudson. 2016. *Cotton Research and Promotion Program: Economic Effectiveness Study*, Report to the Cotton Board, Memphis, TN.
- Williams G.W., J. J. Reimer, R. M. Dudensing, B.A. McCarl, H.M. Kaiser, J. Somers. 2016. *Economic Impact of USDA Export Market Development Programs*, Informa Economics, IEG, Prepared for U.S. Wheat Associates, USA Poultry & Egg Export Council, Pear Bureau Northwest, and the USDA Foreign Agriculture Service.
- Williams, G.W., 2014. *Return to the Soybean Checkoff International Market Promotion Program*, Report to the U.S. Soybean Export Council, St. Louis, Mo.
- Williams, G.W. and J.M. Welch. 2014. *An Economic Analysis of the Potential Returns from an Enhanced Wheat Checkoff Program*, Report to National Wheat Foundation, Wash., D.C.
- Williams, G.W., O. Capps, Jr., and S.H. Lee. 2014. *The Return to Soybean Checkoff Investments*, Report to the Audit and Evaluation Committee of the United Soybean Board, St. Louis, Mo.
- Ghosh, S. and G.W. Williams. 2014. *Returns to Stakeholders from the American Lamb Checkoff Program: A Supply Chain Analysis*, Report to the American Lamb Board, Denver, Colorado.
- Capps, Jr., O, G.W. Williams, V.S. Salin, and D.S. Brown. 2013-2019. *Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the Milk Processor Education Program (MilkPEP), Dairy Management, Inc. (DMI), and Qualified Programs (QPs)*, 2011, 2012, 2013-14, 2015, 2016, 2017 Reports to Congress, Agribusiness, Food, and Consumer Economics Research Center, Texas A&M University, College Station, Texas.
- Williams, G.W. 2012. *International Market Promotion Effectiveness of the Soybean Checkoff Program*, Report to the U.S. Soybean Council, St. Louis, MO.
- Williams, G.W., O. Capps, Jr., D. Hudson, S. Pan, J. Robinson. 2011. *Cotton Research and Promotion Program: Economic Effectiveness Study*, Report to Cotton Board, Memphis, TN.
- Capps, O., Jr. and G.W. Williams, *Analyzing the Effectiveness of the Lamb Promotion, Research, and Information Order*. 2011. Report to the American Lamb Board, Denver, Colorado.
- Williams, G.W., O. Capps, Jr., and T. Dang. 2010. *Effects of Lamb Promotion on Lamb Demand and Imports*. Report to the American Lamb Board, Denver, Colorado.
- Williams, G.W., O. Capps, Jr., and D.A. Bessler. 2009. *Is the Soybean Checkoff Program Working?* Report to United Soybean Board, St. Louis, MO.
- Williams, G.W. and O. Capps, Jr. 2008. *Is Lamb Promotion Still Working?* Report to the American Lamb Board, Denver, Colorado.
- Moore, E.D. and G.W. Williams. 2008. *Is the Texas Pecan Checkoff Program Working?* Report to the Texas Pecan Board, College Station, Texas.
- Williams, G.W. and O. Capps, Jr. 2007. *Is Lamb Promotion Working?* Report to the American Lamb Board, Denver, Colorado.

- Williams, G.W., O. Capps, Jr., and M. Palma. 2007. *Effectiveness of Marketing Order 906 in Promoting Sales of Texas Grapefruit and Oranges*, Report to the Texas Valley Citrus Committee, Mission, Texas.
- Capps, O. Jr. and G.W. Williams. 2006. *The Economic Effectiveness of the Cotton Checkoff Program*, Report to Cotton Board, Memphis, TN.
- Capps, O., Jr. and G.W. Williams. 2005. *Measuring the Effectiveness of Lamb Advertising and Promotion: An Updated Analysis*, Report to the American Lamb Board, Denver, Colorado.
- Capps, O. Jr., D.A. Bessler, and G.W. Williams. 2004. *Advertising and the Retail Demand for Orange Juice*, Report to the Florida Department of Citrus and Florida Citrus Mutual, Lakeland, Florida.
- Williams, G.W., O. Capps, Jr., and D.A. Bessler. 2004. *Florida Orange Grower Returns from Orange Juice Advertising*, Consumer and Product Research," Report to the Florida Department of Citrus and Florida Citrus Mutual, Lakeland, Florida.
- Capps, O., Jr., D.A. Bessler, and G.W. Williams. 2003. "Evaluating the Economic Impacts Associated with the Advertising Efforts of the Florida Department of Citrus," Report to the Florida Department of Citrus and Florida Citrus Mutual, Lakeland, Florida.
- Williams, G.W., G. Davis, and J.P. Nichols. 2000. *Check-off Program Evaluation: Why, What, How, When, and Who?* Commodity Market Research Report No. CM-2-00, Texas Agricultural Market Research Center, Texas A&M University, College Station, Texas.
- Williams, G.W., C.R. Shumway, H.A. Love, and J. B. Ward. 1998. *Effectiveness of the Soybean Checkoff Program*, Report to United Soybean Board, St. Louis, MO.
Commodity Market Research Report No. CM-2-98, Texas Agricultural Market Research Center, Texas A&M University, College Station, Texas.
- Williams, G.W. and J.P. Nichols, *Effectiveness of Commodity Promotion*. 1998. Consumer and Product Market Research Report No. CP-1-98, Texas Agricultural Market Research Center, Texas A&M University, College Station, Texas.
- Williams, G.W. 1983. *Return to U.S. Soybean Export Market Development*, Report to American Soybean Association, St. Louis, Mo.

**Reports and Publications Associated with the Evaluation of Checkoff Programs
authored by Dr. Oral Capps, Jr. and Dr. Gary W. Williams**

1. Williams, G.W. and O. Capps, Jr., “Generic Promotion of Norwegian Whitefish Exports,” *Journal of International Food and Agribusiness Marketing*, forthcoming.
2. Capps, Jr., O., and G.W. Williams, “Economic Benchmark Model and Analysis of the Effects of the Chinese Tariff on the U.S. Pecan Industry,” Report Prepared for the American Pecan Council, December 2019.
3. Capps, Jr., O., “Targeted Advertising and Promotion Campaigns: A Case Study of the Efforts of the National Pork Board”, submitted to the *Journal of Agribusiness*, November 2019.
4. Williams, G.W. and O. Capps, Jr., “Advertising with Supply Control: Some Implications of Norwegian Whitefish Export Promotion,” *Agricultural and Resource Economics Review*, on-line version published November 8, 2019, 1-28.
<https://doi.org/10.1017/age.2019.25>.
5. Williams, G.W. and O. Capps, Jr., “On the Promotion of Norwegian Seafood Exports,” submitted to the *International Food and Agribusiness Management Review*, September 2019.
6. Williams, G.W. and O. Capps, Jr., “How Effectively Does the Norwegian Seafood Council Promote Norwegian Exports of Pelagics?” Report Prepared for the Norwegian Seafood Council, June 2019.
7. Capps, Jr., O., G.W. Williams, V.S. Salin, and D.S. Brown, “Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the National Dairy Promotion and Research Program and the Fluid Milk Processor Promotion Program— 1995 to 2017,” Prepared for the U.S. Department of Agriculture, Agricultural Marketing Service (AMS), Report to Congress, February 2019.
8. Williams, G.W. and D. Hanselka, “Return on Investment in the American Lamb Checkoff Program,” Report to the American Lamb Board, Denver, Colorado, January 2019.
9. Williams, G.W. and O. Capps, Jr., “Generic Promotion of Sorghum for Food and Industrial Uses,” *Journal of International Food and Agribusiness Marketing* 31(4):300-320, 2019. <https://doi.org/10.1080/08974438.2018.1533510>.
10. Williams, G. W. and O. Capps, Jr., “Generic Promotion of Sorghum for Food and Industrial Uses,” *Journal of International Food and Agribusiness Marketing*, DOI:10.1080/08974438.2018.1533510, (December 2018).
11. Capps, Jr., O., G.W. Williams, V.S. Salin, and D.S. Brown, “Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the National Dairy Promotion and Research Program and the Fluid Milk Processor Promotion Program— 1995 to 2016,” Prepared for the U.S. Department of Agriculture, Agricultural Marketing Service (AMS), Report to Congress, April 2018.

12. Williams, G.W., O. Capps, Jr., and V. Salin, "Effects of the Chinese Retaliatory Tariff on U.S. Pecan Exports," Report to the American Pecan Council, Ft. Worth, Texas, August 29, 2018.
13. Capps, Jr., O., G.W. Williams, V.S. Salin, and D. S. Brown, "Quantitative Evaluation of the Effectiveness of Activities by the National Dairy Promotion and Research Program and the National Fluid Milk Processor Promotion Program—1995 to 2016," Technical Report to the U.S. Department of Agriculture, Agricultural Marketing Service, July 2018.
14. Williams, G.W. and O. Capps, Jr., "How Effectively Does the Norwegian Seafood Council Promote Norwegian Whitefish Exports?" Research Report to the Norwegian Seafood Council, June 2018.
15. Capps, Jr., O. and G.W. Williams, "2018 Update Report: How Effectively Does the Norwegian Seafood Council Promote Norwegian Seafood Exports?" Research Report to the Norwegian Seafood Council, May 2018.
16. Capps, Jr., O., G.W. Williams, V.S. Salin, and D.S. Brown, "Chapter 3: Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the Milk Processor Education Program (MilkPEP), Dairy Management, Inc. (DMI), and Qualified Programs (QPs)," 2016 Report to Congress, Agribusiness, Food and Consumer Economics Research Center, Texas A&M University, College Station, Texas, May 2018.
17. Williams, G.W., O. Capps, Jr., and D. Hanselka, "U.S. National Economic Contribution of Generic Food and Agricultural Product Advertising and Promotion." *Journal of International Food and Agribusiness Marketing* 30 (2):191-210, 2018.
18. Capps, Jr., O., G.W. Williams, and M. Welch, "Producer Return on Investments in Sorghum Research, Promotion, and Information: An Updated Analysis," Research report prepared for the United Sorghum Checkoff Program (USCP) Board, November 2017.
19. Capps, Jr., O., G.W. Williams, V.S. Salin, and D.S. Brown, "Chapter 3: Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the Milk Processor Education Program (MilkPEP), Dairy Management, Inc. (DMI), and Qualified Programs (QPs)," 2015 Report to Congress, Agribusiness, Food, and Consumer Economics Research Center, Texas A&M University, College Station, Texas, September 2017.
20. Capps, Jr., O., G.W. Williams, V.S. Salin, and D.S. Brown, "Chapter 3: Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the Milk Processor Education Program (MilkPEP), Dairy Management, Inc. (DMI), and Qualified Programs (QPs)," 2013-14 Report to Congress, Agribusiness, Food, and Consumer Economics Research Center, Texas A&M University, College Station, Texas, September 2017.
21. Capps, Jr., O., G.W. Williams, and J.M. Welch, "Producer Return on Investments in Sorghum Research, Promotion, and Information: An Updated Analysis," Research Report for the United Sorghum Checkoff Program Board, College Station, Texas, September 2017.

22. Capps, Jr., O., and G.W. Williams, "How Effectively Does the Norwegian Seafood Council Promote Norwegian Seafood Exports?" Report prepared for the Norwegian Seafood Council, May 2017.
23. Williams, G.W., O. Capps, Jr., D Hanselka, "The National Economic Contribution of Agricultural Advertising and Promotion," Report prepared for the Commodity Market Roundtable Committee, April 2017.
24. Reimer, J., G.W. Williams, R. Dudensing, and H. Kaiser, "Agricultural Export Promotion Programs Create Positive Economic Impacts," *Choices* 32(3), 3rd Quarter, 2017. (<http://www.choicesmagazine.org/choices-magazine/submitted-articles/agricultural-export-promotion-programs-create-positive-economic-impacts>).
25. Williams, G.W., O. Capps, Jr., and D. Hanselka, "National Economic Contributions of Generic Food and Agricultural Product Advertising and Promotion," *Journal of International Food and Agribusiness Marketing*, (2017), November, 2017, link <https://doi.org/10.1080/08974438.2017.1402729>.
26. Capps, Jr., O., G.W. Williams, V.S. Salin, and D.S. Brown, "Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the National Dairy Promotion and Research Program and the Fluid Milk Processor Promotion Program: 2016 Report to Congress," Report prepared for the U.S. Department of Agriculture, Agricultural Marketing Service (AMS), Phase 5, November 2016.
27. Capps, Jr., O., G.W. Williams, V.S. Salin, and D.S. Brown, "Technical Report: Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the Milk Processor Education Program (MilkPEP), Dairy Management, Inc. (DMI), and Qualified Programs (QPs)," Report to Agricultural Marketing Service, U.S. Department of Agriculture, Agribusiness, Food and Consumer Economics Research Center, Texas A&M University, College Station, Texas, September 23, 2016.
28. Capps, Jr., O., G. W. Williams, and D. Hudson, "Cotton Research and Promotion Program: Economic Effectiveness Study," Report prepared for the Cotton Board, July 2016.
29. Williams G.W., J. J. Reimer, R. M. Dudensing, B.A. McCarl, H.M. Kaiser, J. Somers, "Economic Impact of USDA Export Market Development Programs, Informa Economics, IEG," Prepared for U.S. Wheat Associates, USA Poultry & Egg Export Council, Pear Bureau Northwest, and the USDA Foreign Agriculture Service, July 2016.
30. Capps, Jr., O., D.A. Bessler, and G.W. Williams, "The Ramifications of Nearly Going Dark: The Case of Orange Juice Advertising," *Agricultural and Resource Economics Review* 45(1): 68-97, 2016.
31. Ghosh, S. and G.W. Williams, "Generic Advertising of U.S. Lamb," *Journal of International Food and Agribusiness Marketing* 28(4): 373-393, 2016.
32. Capps, Jr., O., G. W. Williams, V.S. Salin, and D.S. Brown, "Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the Milk Processor Education Program (MilkPEP), Dairy Management, Inc. (DMI), and Qualified

- Programs,” Prepared for the U.S. Department of Agriculture, Agricultural Marketing Service (AMS), September 2015.
33. Welch, J.M and G.W. Williams, “Competitiveness of U.S. Wheat: The Role of Productivity,” Report to the National Association of Wheat Growers, Washington, D.C., August 31, 2015.
 34. Brown, D.S., O. Capps, Jr., G.W. Williams, and D. Madison, “Evaluating the Effectiveness of the Dairy Checkoff Program: A Simulation Analysis,” AFCERC Publication, May 2015.
 35. Williams, G.W., “Return to the Soybean Checkoff International Market Promotion Program,” Report to the U.S. Soybean Export Council, St. Louis, Mo., December 2014.
 36. Williams, G.W. and J.M. Welch, “An Economic Analysis of the Potential Returns from an Enhanced Wheat Checkoff Program,” Report to the National Wheat Foundation, Washington, D.C., October 2014.
 37. Capps, Jr., O., G. W. Williams, V.S. Salin, and D.S. Brown, “Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the Milk Processor Education Program (MilkPEP), Dairy Management, Inc. (DMI), and Qualified Programs,” Prepared for the U.S. Department of Agriculture, Agricultural Marketing Service (AMS), September 2014.
 38. Williams, G.W., O. Capps, Jr. and S.H. Lee, “The Return to Soybean Checkoff Investments,” A Report to the Audit and Evaluation Committee, United Soybean Board, St. Louis, MO, July 2014.
 39. Ghosh, S. and G.W. Williams, “Returns to Stakeholders from the American Lamb Checkoff Program: A Supply Chain Analysis,” Report to the American Lamb Board, Denver, Colorado, June 2014.
 40. Capps, Jr., O., G. W. Williams, V.S. Salin, J.D. Martini, and D.S. Brown, “Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the Milk Processor Education Program (MilkPEP), Dairy Management, Inc. (DMI), and Qualified Programs,” Prepared for the U.S. Department of Agriculture, Agricultural Marketing Service (AMS), Phase 2, October 2013.
 41. Capps, Jr., O., G.W. Williams, and J. Malaga, “Impacts of the Investments Made in Research, Promotion, and Information on Production and End Uses of Sorghum, Research Report to The United Sorghum Checkoff Program (USCP) Agribusiness, Food and Consumer Economics Research Center, Texas A&M University, Department of Agricultural Economics, July 2013.
 42. Capps, Jr., O., G. W. Williams, V.S. Salin, and S. Dharmasena, “Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the Milk Processor Education Program (MilkPEP), Dairy Management, Inc. (DMI), and Qualified Programs,” Prepared for the U.S. Department of Agriculture, Agricultural Marketing Service (AMS), April 2013.
 43. Williams, G.W., “International Market Promotion Effectiveness of the Soybean Checkoff Program,” International Market Research Report No. IM-01-12, Agribusiness,

Food, and Consumer Economics Research Center, Texas A&M University, College Station, Texas, February 2012.

44. Capps, Jr., O., V.S. Salin, S. Dharmasena, and R. Hanselman, "Effectiveness of Marketing Order 955 in Promoting Sales of Vidalia Onions," Prepared for the Vidalia Onion Committee, December 2011.
45. Williams, G.W., O. Capps, Jr., D. Hudson, S. Pan, and J. Robinson, "Cotton Research and Promotion Program: Economic Effectiveness Study," AFCERC Report No. CM-03-11 Prepared for the Cotton Board, April 2011.
46. Capps, Jr., O., and G.W. Williams, "Analyzing the Effectiveness of the Lamb Promotion, Research, and Information Order," Commodity Market Research Report No. CM-02-11, Agribusiness, Food, and Consumer Economics Research Center, Texas A&M University, College Station, Texas, January 2011.
47. Williams, G.W., O. Capps, Jr., V. Salin, S. Dharmasena, L. Higgins, W.J. Thompson, D. Anderson, "Ethnic Lamb Buying and Preparation Behavior and Preferences," Commodity Market Research Report No. CM-01-11, Agribusiness, Food, and Consumer Economics Research Center, Texas A&M U., College Station, TX, January 2011.
48. Williams, G.W. and O. Capps, Jr., "Is the Cotton Checkoff Program Worth the Cost?" *Journal of Cotton Science* 15:106-126, 2011.
49. Shiflett, J.S., G.W. Williams, and P. Rodgers, "Nontraditional Lamb Market in the United States: Characteristics and Marketing Strategies," Commodity Market Research Report No. CM-02-10, Agribusiness, Food, and Consumer Economics Research Center, Texas A&M University, College Station, Texas, February 2010.
50. Capps, Jr., O., G.W. Williams, and T. Dang, "Effects of Lamb Promotion on Lamb Demand and Imports," AFCERC Commodity Market Research Report No.-CM-01-10, January 2010.
51. Williams, G.W., O. Capps, Jr., and T. Dang, "Does Lamb Promotion Work?" *Agribusiness: An International Journal* 26, 4 (2010): 536-556.
52. Williams, G.W., O. Capps, Jr., and D.A. Bessler, *Is the Soybean Checkoff Program Working?* Commodity Market Research Report No. CM-01-09, Texas Agribusiness Market Research Center, Texas A&M University, College Station, Texas, February 2009.
53. Moore, E.D., G.W. Williams, M.A. Palma, and L. Lombardini, "Effectiveness of State-Level Pecan Promotion Programs: The Case of the Texas Pecan Checkoff Program," *HortScience* 44(7):1-7, 2009.
54. Williams, G.W. and O. Capps, Jr., "Is Lamb Promotion Still Working?" Commodity Market Research Report No. CM-02-08, Texas Agribusiness Market Research Center, Tex. A&M University, College Station, Texas, August 2008.
55. Moore, E.D. and G.W. Williams, "Is the Texas Pecan Checkoff Program Working?" Commodity Market Research Report No. CM-01-08, Texas Agribusiness Market Research Center, TAMU, College Station, TX, Feb. 2008.

56. Williams, G.W., O. Capps, Jr., and M.A. Palma, "Effectiveness of Marketing Promotion Programs: The Case of Texas Citrus," *HortScience* 43(2):385-392, 2008.
57. Williams, G.W., D. Bailey, O. Capps, Jr., L.A. Detwiler, H.S. Glimp, T. Hammonds, D.D. Hedley, H.H. Jensen, and D.L. Thomas, "Changes in the Sheep Industry in the United States: Making the Transition from Tradition," Washington, D.C.: The National Academies Press, 2008.
58. Williams, G.W. and O. Capps, Jr. "Is Lamb Promotion Working?" Commodity Market Research Report No. CM-01-07, Texas Agribusiness Market Research Center, Texas A&M University, College Station, Texas, November 2007.
59. Williams, G.W., O. Capps, Jr., and M. Palma, "Effectiveness of Marketing Order 906 in Promoting Sales of Texas Grapefruit and Oranges," AFCERC Report No. CP-01-07, Prepared for the Texas Valley Citrus Committee, February 2007.
60. Capps, Jr., O., and G.W. Williams, "The Economic Effectiveness of the Cotton Checkoff Program," A Report Prepared for the Cotton Board, November 2006.
61. Capps, Jr., O., and S. Meyer, "Evaluating the National Pork Board Targeted Advertising and Promotion Campaign," A Report Prepared for the National Pork Board, May 2006.
62. Williams, G.W. and O. Capps, Jr., "Measuring the Effectiveness of Checkoff Programs," *Choices* 21:73-78, 2006.
63. Capps, Jr., O., and G.W. Williams, "An Economic Evaluation of the Marketing/Promotion and Non-Agricultural Research Activities Associated with the Cotton Checkoff Program," (December 2005), A Report Prepared for Wilmer, Cutler, Pickering, Hale, and Dorr.
64. Capps, Jr., O., and G.W. Williams, "Measuring the Effectiveness of Lamb Advertising and Promotion: An Updated Analysis," AFCERC Report No. CM-01-06, September 2005.
65. Williams, G.W., O. Capps, Jr., and D.A. Bessler, "Florida Orange Grower Return for Orange Juice Advertising," TAMRC Consumer and Product Research Report No. CP-01-04, February 2004.
66. Williams, G.W., O. Capps, Jr., and D.A. Bessler, Florida Orange Grower Returns from Orange Juice Advertising, Consumer and Product Research Report No. CP-01-04, Texas Agribusiness Market Research Center, Texas A&M University, College Station, Texas, February 2004.
67. Capps, Jr., O., D.A. Bessler, and G.W. Williams, "Evaluating the Economic Impacts Associated with Advertising Effects of the Florida Department of Citrus," Final Report Prepared for the Advertising Review Committee in Association with the Florida Department of Citrus and Florida Citrus Mutual, (May 2003).
68. Williams, G.W., C.R. Shumway, and H.A. Love, "Returns to Soybean Producers from Investments in Promotion and Research," *Agricultural and Resource Economics Review* 31(1):97-111, 2002.
69. Williams, G.W., J.P. Nichols, and B. Smith, "Propane Council Evaluation Plan: Phase I," Confidential Report to the Propane Education and Research Council, Texas

- Agricultural Market Research Center, Texas A&M University, College Station, Texas, April 2002.
70. Park, J., and O. Capps, Jr., "Impacts of Advertising, Attitudes, Lifestyles and Health on the Demand for U. S. Pork: A Micro-Level Analysis," *Journal of Agricultural and Applied Economics* 34, 1 (April 2002): 1-15.
 71. Davis, G.C., O. Capps, Jr., D.A. Bessler, J.H. Leigh, J.P. Nichols, and E. Goddard, "An Economic Evaluation of the Pork Checkoff Program," A Report to the National Pork Board, Department of Agricultural Economics, Texas A&M University, Departmental Technical Report, No. 01-1, (January 2001).
 72. Williams, G.W., G. Davis, and J.P. Nichols, "Check-off Program Evaluation: Why, What, How, When, and Who?" Commodity Market Research Report No. CM-2-00, Texas Agricultural Market Research Center, Texas A&M University, College Station, Texas, September 2000.
 73. Capps, Jr., O., G.C. Davis, D.A. Bessler, and J.P. Nichols, "A Quasi-Structural and Time-Series Evaluation of the Cotton Checkoff Program," January 2000.
 74. Capps, Jr., O., "Empirical Study of the Demand for Honey," in *Estimated Impact of Economic Adulteration on the U.S. Honey Industry*, unpublished report prepared for the National Honey Board, Appendix B, August 1999.
 75. Williams, G.W., "Commodity Checkoff Programs as Alternative Producer Investment Opportunities: The Case of Soybeans," *Agribusiness: An International Journal* 15(4): 539-552, 1999.
 76. Williams, G.W. and J.P. Nichols, "Effectiveness of Commodity Promotion," Consumer and Product Market Research Report No. CP-1-98, Texas Agricultural Market Research Center, Texas A&M University, College Station, Texas, May 1998.
 77. Williams, G.W., C.R. Shumway, H.A. Love, and J.B. Ward, "Effectiveness of the Soybean Checkoff Program," Commodity Market Research Report No. CM-2-98, Texas Agricultural Market Research Center, Texas A&M University, College Station, Texas, May 1998.
 78. Nichols, J.P., O. Capps, Jr., G.C. Davis, and D.A. Bessler, "Evaluating Returns to the Cotton Checkoff Program," *NICPRE Quarterly Newsletter* 3, 2 (Second Quarter 1997): 2-4.
 79. Capps, Jr., O., D.A. Bessler, G.C. Davis, J.P. Nichols, C.G. Anderson, and E.G. Smith, "Economic Evaluation of the Cotton Checkoff Program," Department Technical Report #97-2, Texas A&M University, November 1996.
 80. Capps, Jr., O., P.J. Byrne, and G.W. Williams, "Analysis of Marketing Margins in the U.S. Lamb Industry," *Agricultural and Resource Economics Review* 24(2):232-240, 1995.
 81. Williams, G.W., O. Capps, Jr., et. al., "Assessment of Marketing Strategies to Enhance Returns to Lamb Producers," *TAMRC Commodity Market Research Report No. CM-1-91*, (December 1991).

82. Williams, G.W. and others, "Assessment of Marketing Strategies to Enhance Returns to Lamb Producers," Commodity Market Research Report No. CM-1-91, Texas Agricultural Market Research Center, Texas A&M University, College Station, Texas, December 1991.
83. Williams, G.W., "Returns to U.S. Soybean Export Market Development," *Agribusiness: An International Journal* 1(3):243-263, 1985.
84. Williams, G.W., "Return to U.S. Soybean Export Market Development," Staff Paper 136, Department of Economics, Iowa State University, December 1983.