

2018 Georgia **Ag Forecast**

From production to processing, agriculture is the largest industry in Georgia. It supports the state through jobs, provides Georgians with food and fiber and contributes numerous other benefits that stretch far beyond our corner of the country. Agriculture is Georgia, and we at the University of Georgia College of Agricultural and Environmental Sciences are doing everything we can to support both.

The UGA Center for Agribusiness and Economic Development and the college’s Department of Agricultural and Applied Economics strive to serve Georgians by providing the most up-to-date and relevant agricultural and economic information. Our faculty work to deliver quality research and analyses so that you can make pertinent decisions that will enhance your agribusiness operation.

Georgia agriculture competes in a global market. Economic conditions here and overseas, as well as politics, can have a significant impact on producers here in Georgia. As we look to 2018, agricultural exports are forecast to increase as a result of strong demand, making it the fourth-largest farm export year on record. The Georgia Ag Forecast will explore the impact of these rising exports on Georgia agriculture.

With this in mind, we present the 11th annual “Georgia Ag Forecast Situation and Outlook Reports.” These materials represent the best thinking of economists who work with the various agricultural sectors of our state. Whether you’re interested in row crops, livestock, agritourism, honeybees or timber, we’ve compiled the impacts from 2017 and the potential for 2018. We hope the situations and outlooks addressed in this book will help you make informed business decisions for the upcoming year.

We thank our sponsors, the Georgia Department of Agriculture and the Center for Innovation Agribusiness, for providing the support that allows us to extend research-based information from UGA to our state’s citizens. This is our job now, just as it was when UGA and other land-grant universities were founded more than 150 years ago.

Sam L. Pardue
Dean and Director
University of Georgia College of Agricultural and Environmental Sciences

Kent L. Wolfe
Director
University of Georgia Center for Agribusiness and Economic Development

Octavio A. Ramirez
Department Head
University of Georgia College of Agricultural and Environmental Sciences
Department of Agricultural and Applied Economics

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The National Outlook

The 2018 U.S. economic forecast indicates that the economic upturn that began in the second half of 2009 will continue. The rate of 2018 gross domestic product growth – 2.5 percent – will be about the same as in 2017, but below the average of the last 50 years – 2.9 percent. U.S. GDP growth will be sustained through 2018 for seven reasons: (1) More single-family homebuilding; (2) faster growth in spending by businesses for equipment; (3) faster growth in spending by all levels of government; (4) steady growth in spending by U.S. consumers; (5) steady growth in industrial production; (6) faster growth in exports; and (7) rebuilding properties damaged or destroyed by recent hurricanes. In addition, household balance sheets are in good shape. Corporate balance sheets will not be quite as strong as they were in 2017, but they will be quite

manageable due to low interest rates. Small businesses are in good shape and are poised to expand. In 2018, consumer spending, gross private domestic investment, and industrial production will contribute to U.S. GDP growth. The inventory swing will be a slightly positive factor. In addition, spending by government will be a positive factor in terms of 2018 U.S. GDP growth. The Federal Reserve’s monetary policy stance will become less stimulative as it slowly raises short-term policy interest rates and reduces its balance sheet – the federal funds rate target will reach 2.0 percent in December 2018. The inflation-adjusted federal fund rate will be about zero – significantly less stimulative, but hardly restrictive. Monetary policy, therefore, will be neutral. Due to a weaker dollar and faster foreign economic growth, exports will grow faster in 2018 than in

2017, but because imports will grow even more quickly, net exports will subtract from U.S. GDP growth. The subtraction will be larger than in 2017. Low levels of foreign immigration will also slow U.S. GDP growth. Multi-family homebuilding starts will trend lower due to higher delivery of new units that are already in the pipeline, tighter credit for new apartment development, and the rising proportion of households opting for home ownership. Subpar productivity growth – albeit slightly higher than in 2017 – is another factor that will hold down GDP and personal income growth. Sub-par productivity growth reflects several factors, including the aging of the population, low levels of business investment, less foreign immigration, heavy regulation at every level of government, and the repercussions of many years of mediocre gains in educational achievement.

GEORGIA BASELINE FORECAST, 2017-2018						
Georgia	2013	2014	2015	2016	2017	2018
Gross domestic product in billions of 2009 dollars	424.4	436.9	447.9	461.1	475.9	491.1
Percent change	1.4	3.0	2.5	3.0	3.2	3.2
Nonfarm employment (thousands)	4032.4	4144.9	4261.9	4378.0	4486.9	4574.8
Percent change	2.0	2.8	2.8	2.7	2.5	2.0
Personal income, billions of dollars	371.2	392.1	411.7	431.3	455.5	481.9
Percent change	1.6	5.6	5.0	4.8	5.6	5.8
Housing permits, total	36,174	39,423	45,549	51,675	53,318	60,296
Percent change	48.6	9.0	15.5	23.4	3.2	13.1
Unemployment rate (percent)	8.2	7.1	6.0	5.4	5.0	4.9
Source: The Selig Center for Economic Growth, Terry College of Business, The University of Georgia						

The Georgia Outlook

At this late stage of the economic expansion, the economic outlook for Georgia is surprisingly good. The main factors that contributed to growth over the last few years will continue to do so in 2018. Economic development prowess, a revival of population growth, the housing upturn, and a relatively available supply of skilled labor are the main factors that will cause Georgia’s economy to grow faster than the nation’s economy for the third-straight year. Collectively, these forces will be slightly stronger in 2018 than in 2017. The main economic headwinds will also intensify, but not too much. On balance, the pace of economic growth will be steady in 2018, but the risk of recession has risen. The risk of recession is higher than it was at this time last year because excesses in asset, credit and labor markets have increased. The forecast for 2018 indicates that the pace of Georgia’s GDP and personal income growth will be the same as in 2017, but tighter labor markets and prospects for steady rather than accelerating top-line growth will cause job growth to slow. The slowdown in job growth will be more modest in Georgia than in the nation as a whole. The 2018 job gains will provide good opportunities for almost everyone actively looking for work. For example, all of Georgia’s metropolitan areas will add jobs in 2018. In addition, all of Georgia’s major industries will add jobs. More precisely, Georgia’s GDP will grow by 3.2 percent in 2018. That’s the same as the 3.2 percent growth estimated for 2017. That’s 0.7 percentage points higher than the 2.5 percent growth expected for U.S. GDP. Georgia’s personal income will rise by 5.8 percent, up

slightly from 5.6 percent growth in 2017, and up substantially from 4.8 percent growth in 2015. Georgia’s employment will rise by 2 percent in 2018. That is smaller than the 2.5 percent gain estimated for 2017, but it is almost double the 1.1 percent gain expected for the nation. The fastest job growth will occur in construction, followed by professional and business services, leisure and hospitality, education and health services, and wholesale trade. Solid, but below average, job growth will occur in manufacturing, financial activities and transportation. Positive, but slow, job growth will occur in utilities, information and government. Local government, rather than federal or state government, will account for most of the gains in government employment. On balance, job seekers will have more bargaining power than usual in 2018, which will provide an extra push to personal income growth and, in turn, consumer spending. In 2017, Georgia’s monthly unemployment rate averaged about 5 percent, and it will be slightly below 5 percent in 2018. That is very close to full employment. Fortunately, the strong in-migration of workers from other states, as well as increases in labor force participation, will add significantly to the supply of workers throughout 2018. That labor force growth will prevent Georgia’s unemployment rate from coming down so much that we are no longer attractive to companies looking to expand or relocate. In contrast, the U.S. unemployment rate will drop to less than 4 percent in 2018, which is beyond full employment. That low unemployment rate will be a speed bump for the U.S. economy because it will be difficult to fill open positions. But the tighter U.S. labor supply will

work to Georgia’s advantage in 2018. Economic development projects that might have gone to states like Colorado, Idaho or Tennessee that have very low unemployment rates may go instead to low cost, business-friendly states with available workers. Georgia is one of the states that will have the capacity to accommodate new development. In 2018, Georgia will be one of the most successful states at landing economic development projects. As just discussed, Georgia will have available workers. Plus, Georgia’s workforce development programs rank as the best in the nation. Georgia fields an extremely competitive team of economic development professionals. Georgia is viewed as a place where there is a good working relationship between government and other major players. Government is extremely responsive to the needs of businesses, ranking very high in terms of its regulatory environment and speed of permitting. Many companies will move to Georgia to cut costs, and our business incentive programs ranks second in the nation – South Carolina ranks No. 1 in economic development incentives. Georgia’s shovel ready sites program ranks second in the nation – Tennessee ranks first. Our corporate tax environment ranks third in the nation – Texas and Florida rank first and second. Those factors, plus Georgia’s major transportation and logistical advantages, will keep Georgia’s economic development pipeline full. Another factor that will pay off in 2018 and beyond is that Gov. Deal made an important strategic shift in economic development policy that puts a much greater emphasis on targeted workforce training. For example, the state of Georgia is

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building highly specialized workforce training centers designed to increase the supply of skilled workers, which in turn will attract businesses in targeted industries. The recently opened BioScience Training Center in Stanton Springs, Georgia, and the Georgia Cyber Training and Innovation Center that is under construction in Augusta, Georgia, will be very effective in attracting and retaining businesses that require workers with highly specialized skills. The state also established 17 HOPE Career Grant areas of study with the objective of better aligning college students' fields of study with companies' workforce needs. Over time, this emphasis on skilled workforce training will boost the proportion of high-paying jobs, raise Georgia's productivity and increase our per capita incomes. For these and other reasons, in 2017, site consultants ranked Georgia the top state in which to do business for the fifth straight year.

In 2018, there will still be many economic development projects in play, but some types of projects will become more common and others less common. For example, more professional and business services companies will be looking to expand or relocate, but fewer corporate headquarters will be looking to relocate. Within manufacturing, producers of capital goods and basic consumer goods will expand faster than producers of luxury goods or highly discretionary products. Transportation and logistics firms will be looking for new sites. Biotechnology and other growth industries that are less impacted by economic cycles also will be expanding.

In 2018, providers of professional services and business services will

favor sites in Georgia – especially the Atlanta metropolitan area. The good business climate, logistical advantages in terms of serving far-flung clients, and the available professional workforce are among the factors that will attract professional and business services firms to Georgia. Providers of business services that either lower costs or provide necessities should do very well. The outlook for consultants is positive due to continuing economic expansion, growth in corporate profits, more business expansions and relocations, and higher revenue collections by state and local governments. The Boston Consulting Group's 2017 decision to create a new regional support center in Atlanta reflects the ease of using the area as a geographic hub from which to serve clients throughout the Southeast. Similarly, Accenture – one of the largest consulting firms – announced a major expansion of its operations in Atlanta.

Georgia's transportation and logistics industry will do very well in 2018. More spending by consumers, increases in industrial production, a weaker dollar, Georgia's expanding role as a logistics and distribution center, and larger shipments via Georgia's ports will cause total statewide cargo volumes to outpace state and U.S. GDP growth in 2018. That is quite an accomplishment for an industry that typically moves in lockstep with the overall economy. Due to a weaker dollar and faster foreign growth, exports will grow faster in 2018 than in 2017, which boosts prospects for transportation and logistics firms. Exports are especially important to economic activity in Gainesville, Dalton and Coastal Georgia. Transportation and logistics will gain from the

continuing recovery of construction because construction is one of the most transportation-intensive sectors of the economy. Georgia's manufacturing activity will upshift in 2018, providing yet another tailwind to transportation and logistics firms. In 2017, Georgia landed many economic development projects involving distribution and logistics, including the Elk Group, Coyote Logistics, Safavieh, DNL_RBW Logistics, Distribution Services International and Z Gallerie. Sonoco Packaging will create 595 jobs in a new packaging center in Fairburn. Georgia's logistical advantages led Luxottica Group to choose Henry County for an assembly and distribution center. This project will create about 1,000 new jobs. Georgia will benefit from many new logistical/distribution centers for both online and brick-and-mortar retailers, including Amazon, ASOS, Dollar General, Sports Warehouse and VMInnovations.

In 2018, new high tech industries including healthcare IT, cyber security, software and mobile app development will underpin Georgia's economic growth. IT companies that announced major projects in 2017 include Switch, Sysnet Global Solutions, Global Technology, Better Cloud, athenahealth and OneTrust.

The relocation of manufacturers to Georgia contributes to the positive outlook for 2018. Manufacturers of basic consumer goods will be actively looking for new sites. In fact, food processors dominated the list of economic development projects announced in 2017 and will continue to do so in 2018. Examples of food processors that announced relocations or expansions in 2017 include Diana Foods, Colorado Premium, Lake Foods,

Star Snacks, Farmax Merchandise, Starbucks and Nestle Purina.

High-tech and advanced manufacturing projects will also be a force powering Georgia's industrial sector in 2018. Projects announced in 2017 include Pratt & Whitney, SILON, Advanced Digital Cable, Meggitt Polymers & Composites, and Kamstrup.

Georgia's film industry will make a substantial contribution to economic growth in 2018. Georgia's film industry ranks No. 1 globally in the production of the top grossing feature films, followed by the United Kingdom, Canada and California. State incentives assure that nearly all studio space will be booked.

Housing and real estate development will be a powerful driver of Georgia's economy in 2018. Georgia's housing market will respond to a more favorable balance of supply and demand. Increased demand for housing will come mostly from job and population growth. Those new jobs, and slightly bigger paychecks – plus appreciating home values – will give more people the wherewithal, and the confidence, to buy homes. Listings will remain scarce, with extremely limited supplies of mid-priced homes. The scarcity of listings in combination with steadily increasing demand for housing will cause the number of single-family home starts for new construction to rise by 16 percent in 2018. Existing single-family home prices will rise by 4 percent in Georgia in 2018. The home price increase will be even greater if homebuilders do not quickly ramp up the production of new homes.

On average, Georgia's home prices have fully recovered. In mid-2017, the average price of an existing home was 4 percent higher than its pre-

recession peak. But the degree of home price recovery varies widely within the state. For example, the average price of an existing home in the Atlanta MSA is 8 percent higher than its pre-recession peak value. In Athens, home prices also have fully recovered and exceeded their pre-recession peak by 4 percent. Augusta, Savannah, Rome and Gainesville are close to full price recovery. In contrast, home prices in Columbus, Dalton, Hinesville, Macon and Warner Robins are still 5 to 10 percent below their pre-recession peak. The home price recoveries in Brunswick, Valdosta and Albany are seriously lagging, with existing home prices more than 10 percent below their pre-recession peak. On average, existing home prices in Georgia's small towns and rural areas are 8 percent below their pre-recession peak value. Home price appreciation will continue in 2018, but home prices will rise more slowly than in 2012-2017.

Demographic forces are another factor behind our improving economic performance. Corporate relocations, sustained job growth, the housing recovery, and retiree migration are bringing more people to Georgia. The trend of higher migration to Georgia will persist in 2018. Georgia's population will grow at a pace that's over double the national average in 2018 – 1.5 percent for Georgia versus 0.8 percent for the U.S. Population growth, therefore, will be a stronger driver of Georgia's GDP in 2018 than in 2008-2017. Georgia's population will grow the fastest in Athens, Atlanta, Augusta, Gainesville, Savannah and Warner Robins, which boosts the prospects for homebuilders and B-to-C companies operating in those parts of our state.

As always, there will be some headwinds. Here are five: (1) The Federal Reserve will hike interest rates and reduce the size of its balance sheet, which will increase



borrowing costs on the margin; (2) multifamily homebuilding is likely to trend lower due to the recent high delivery of new units, tighter credit for new apartment development, and an uptick in the proportion of households opting to buy their own homes instead of renting; (3) auto loan delinquencies are rising quickly, especially for subprime loans, and lenders will tighten credit for auto loans in 2018; (4) uncertainty regarding healthcare policy and the lack of administrative support regarding the Affordable Care Act will limit growth of the healthcare industry; and (5) low productivity growth will limit increases in wages and salaries, which in turn limits growth in consumer spending. Even though economic growth is expected for Georgia in 2018, the economy is operating in either the late-middle or late stage of the current economic expansion. That in and of itself does not mean a recession is imminent. After all, Australia has avoided a recession for over 25 years. Still, excesses are developing in both the financial markets and the labor markets, which makes the overall economy increasingly vulnerable to the unexpected shock or policy mistake.

The main risks to growth are: (1) massive shifts in asset prices; (2) contagion from financial turmoil in China, which has its own asset price and investment bubbles; (3) mistakes in U.S. fiscal or monetary policy; and (4) geopolitical tensions. I estimate that the probability of recession beginning sometime in 2018 is about 40 percent. As you probably noticed, the primary risks likely to trigger a new recession are all external to Georgia. But, because Georgia's economy is strongly linked to the national economy, Georgia's economy

will not escape a U.S.-led downturn. What does this forecast mean for you? The main takeaway is that it's not too late to take advantage of the economic expansion, but it's also definitely time to prepare for the next recession. Still, the next downturn is much more likely to begin in 2019 than in 2018. The most likely scenario is that the economy will grow at about the same pace in 2018 as in 2017, but the risk of a recession has risen quite a bit over the last couple of years.

In terms of asset prices, the main concern is about stock prices, but the prices of many asset classes have been bid up. That is partially due to Central Bank policies that have kept interest rates very low for a very long time. High asset prices also reflect the demographics of many rich countries – large proportions of their populations are in their peak earning years and are saving a lot. Home prices are not a major concern. On average, Georgia's home prices are slightly above their pre-recession peak, but that does not mean that another home price bubble has developed. Considering that cumulative inflation between 2007 and 2017 was 22 percent, Georgia's home prices are not that high.

Economic imbalances often correct gradually, but sometimes such corrections are more disruptive. The trigger for a dramatic adjustment is always difficult to see in advance, but it could be financial turmoil in China or an oil supply shock due to political turmoil in Saudi Arabia. There is also a concern that, at the federal level, a combination of extreme policy uncertainty and miscommunication on some very important matters could put decisions by businesses and households on hold, delaying investments, new hires and spending for big-ticket items. Thus far, the

financial markets, households and businesses have shrugged off policy miscommunications. Nonetheless, the risk of major policy miscommunications is higher than normal. At this stage of the business cycle, missteps could prove disruptive to the financial markets, potentially triggering a recession.

Of course, some developments could cause the economy to do much better than currently forecast. Possible developments that provide upside potential to both the short-term and the long-term performance of Georgia's economy include: (1) more aggressive deregulation, especially if deregulation were to catch on at all levels of government; (2) a large infrastructure package targeted towards projects that increase productivity; and (3) immigration reform that substantially increases the number and proportion of highly skilled immigrants.

On balance, the economic outlook for Georgia is good. The odds of a recession are higher than they were one year ago, but there is also considerable upside potential to do even better than the forecast suggests. The most likely scenario is that Georgia will outperform the nation in 2018. Georgia's prospects for growth reflect an available supply of workers, a pipeline that's full of economic development projects, the housing recovery and faster population growth.



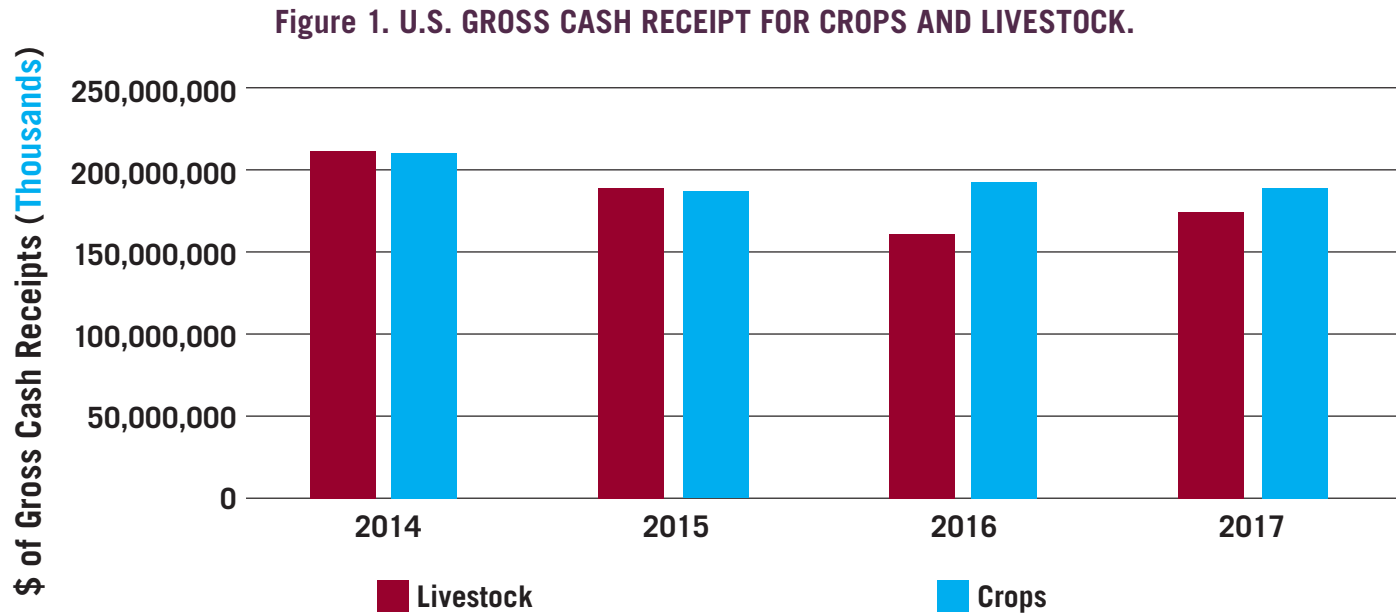
According to the 2017 farm income and expense estimates by the U.S. Department of Agriculture's (USDA) Economic Research Service (ERS), gross farm receipts for 2017 are expected to be \$406 billion. This represents a 2 percent increase from 2016. As for cash receipts from the two major farm industry categories, crops and livestock, crops decreased from their 2016 levels by 1.9 percent and livestock increased by 7.6 percent (Figure 1). These changes in gross receipts are reflective of a stabilization of commodity prices for crops and livestock, as both categories are still significantly lower than their 2014 highs for cash receipts. This stabilization of commodity prices is evident when looking at overall net cash income; national net cash income increased by 2.7 percent from 2016 to 2017.

For Georgia, the trends for gross receipts for crops and livestock as well as net cash income are similar to the overall national trends. The USDA does not release individual state estimates until year-end, thus, at the time of this writing, there are no 2017 numbers for Georgia individually. However, the previous year trends for Georgia from 2015 to 2016 provide insight into what we can expect for the upcoming year, using the national trend as confirmation that Georgia farm receipts should stabilize from their previous trend of declining since 2014. From 2015 to 2016, Georgia's crop receipts increased 2.9 percent and livestock receipts declined 12.4 percent.

The income statement of farmers shows that despite the mixed results for gross cash receipts, as stated previously, net cash income has

increased by 2.7 percent in 2017. This increase has been aided by decreasing production expenses. Expenditures on fertilizer, lime and soil conditions decreased by 7.2 percent from 2016 to 2017. Pesticide expenditures also decreased by 0.5 percent and seed expenditures decreased 1 percent. For livestock farms, feed expense decreased by 3.3 percent. In addition to decreasing costs, farmers also spent 2.1 percent less on machinery and equipment in 2017. These decreases in costs provide relief for many types of farms; however, farm types that utilize labor experienced a 4.1 percent increase in hired labor cost.

While the income statement of farms from 2017 showed positive trends, the balance sheet still tells of caution and high debt loads for farms. Examining the balance



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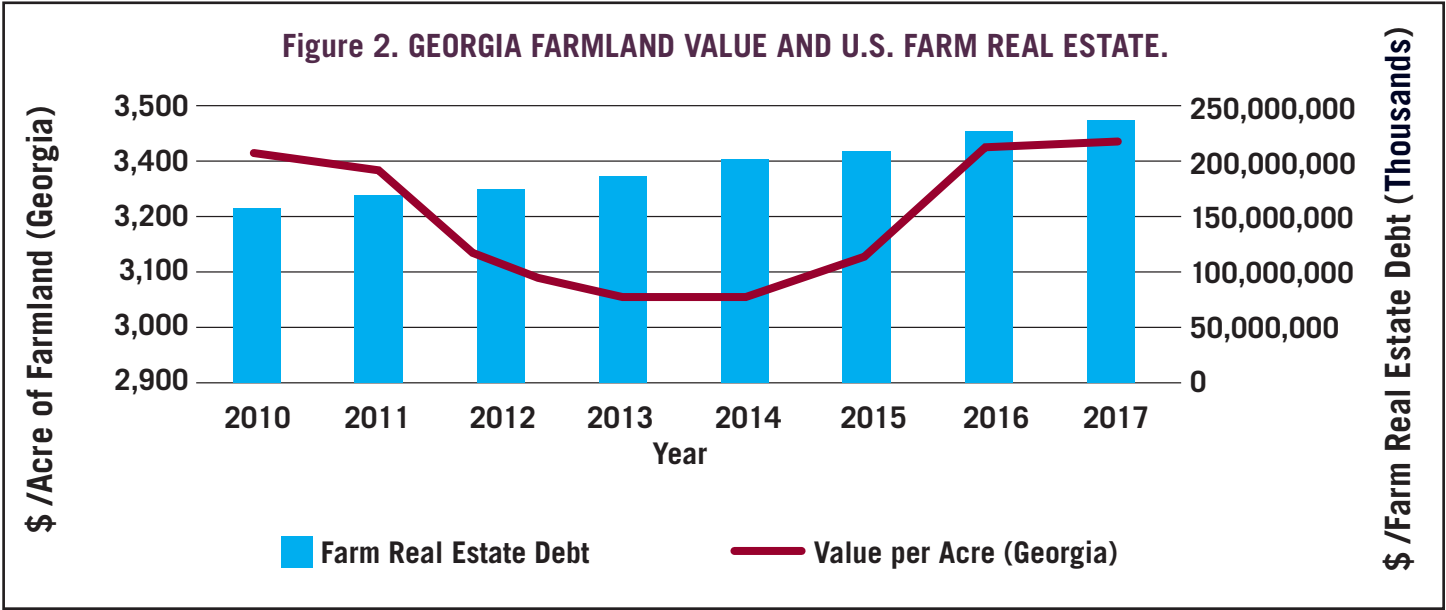
sheet of farmers shows that the average debt-to-asset ratio increased in 2017 for the sixth straight year. This means that the market value of assets relative to the debt held by farms is decreasing. When examining the short-term position of farm balance sheets, one particular area of concern for agricultural lenders is the amount of working capital farms have access to. Working capital is the amount of current assets that are left over once a farm has paid all of its current debt obligations. In many cases, agricultural lenders are reporting a deterioration of working capital with farmers they lend to. This may pose issues with the 2018 operating loan renewals if lenders see an increased risk profile due to less working capital.

When looking at the long-term portion of a farmer's balance sheets, it is important to remember that according to the USDA ERS, farmland can comprise up to 80 percent. Thus, farm real estate values have implications for farmers seeking inputs, and credit as farmland is a common source of collateral. The U.S. has experienced steady growth in

farmland values for the past 15 years; however, this growth has stagnated for much of the U.S., and this is true for Georgia as well. Decreasing or stagnating farmland prices imply that the equity base farmers use for capital purchases is not increasing, which slows equity growth and increases a farm's financial risk. The average price of agricultural land in Georgia was \$3,410 per acre in 2016, and this saw a marginal change to \$3,420 per acre in 2017, according to USDA National Agricultural Statistics Service (NASS; Figure 2). In contrast, the amount of farm real estate debt held by U.S. farms increased by 4.5 percent in 2017. This may indicate that farmers put down smaller down payments for farm real estate purchases this previous year. The overall debt load of U.S. farms increased 2.9 percent from 2016 to 2017. Another long-term balance sheet item to highlight is that machinery inventory for U.S. farms decreased by 2.1 percent from 2016 to 2017. This further highlights the decreasing cash on hand farmers have available to replace older equipment.

One area of concern moving

forward is how the current debt that is issued to farmers will fare if interest rates were to increase. According to the "Agricultural Finance Databook" that the U.S. Federal Reserve publishes, farm real estate interest rates are at historic lows. Figure 3 shows the current trend in interest rates since 2002. The current farm real estate interest rate is reported as 5.66 percent for the first quarter of 2017 (Figure 3). These low interest rates are a result of the current federal funds rate being close to zero due to the previous recession. However, the Federal Open Market Committee (FOMC) announced in early 2017 that over the course of the next few years, it will be raising the federal funds rate. However, it is expected that the FOMC will increase the federal funds rate in small, gradual steps, which should give debt holders time to adjust. However, with the Farm Credit Administration reporting that around 70 percent of all farm real estate loans are secured with a fixed interest rate, any movement of the federal funds rate won't have significant impacts on already



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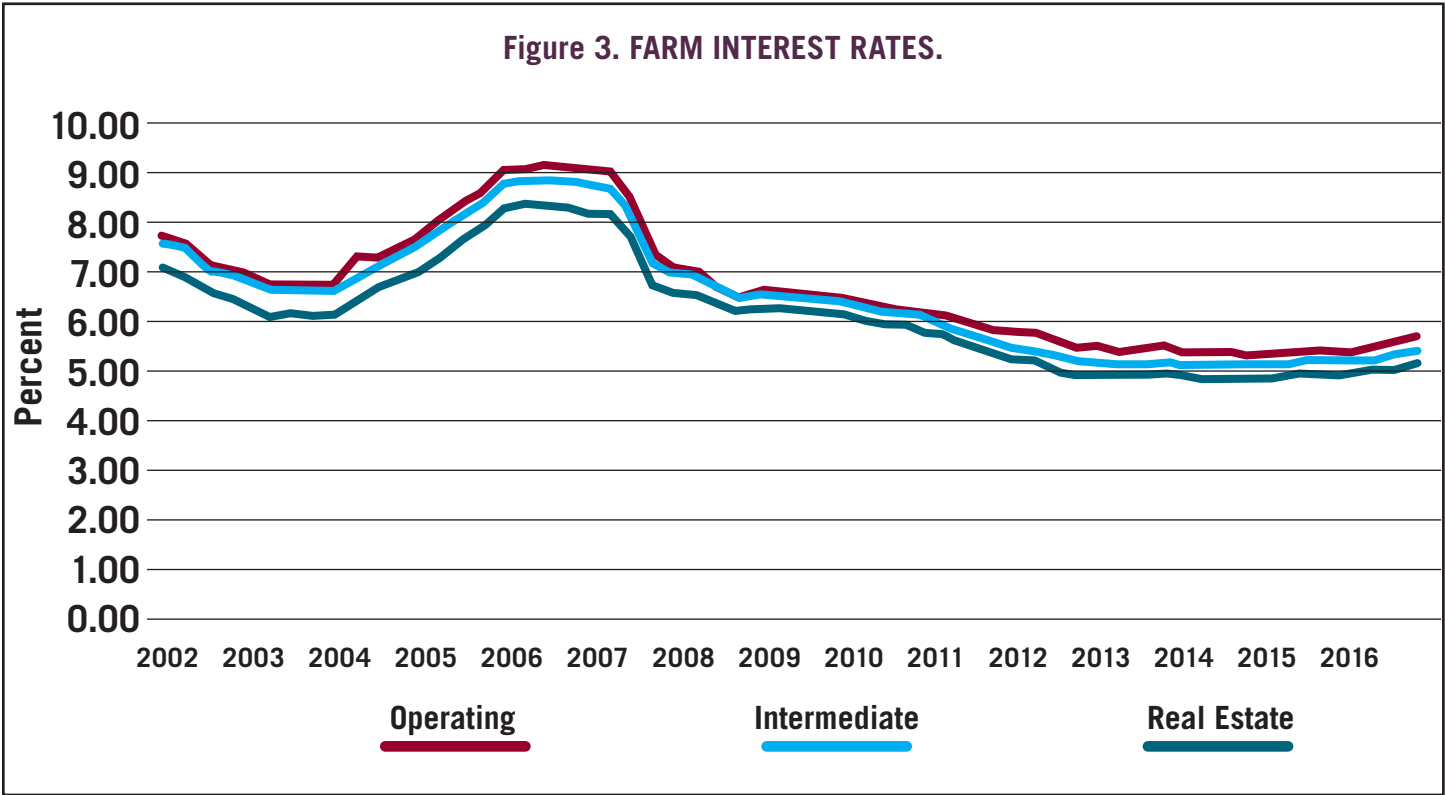
secured farm real estate debt, which accounts for 60 percent of the U.S. farm balance sheet. This would affect any operating or intermediate debt that farmers hold that are secured with variable interest rates.

With the increase in net cash income that has been reported in 2017, another area of emphasis is how U.S. and Georgia farmers will fare in the lending sector. Agricultural lenders report that despite the increase in net cash income for farms,

lenders expect continued financial stress to continue as farmers attempt to rebuild lost working capital. These same loan officers expect banks to tighten restrictions and increase the collateral required to underwrite a loan over the coming months.

Overall, the financial health of U.S. and Georgia farms improved in 2017 due to the stabilization of key commodity prices. However, with the deterioration of working capital positions from previous year's net

losses, farmers are still facing cash flow issues and tighter restriction on loans. Moving forward through 2018, key areas to watch include where farm real estate prices go and if capital expenditures on machinery and equipment increase, which would signal an improvement of the working capital position of farmers.





Peanuts

Adam Rabinowitz

The year 2017 looks like it will be a record year for the peanut crop in Georgia and the U.S. Total planted acres in Georgia were 840,000, up 14 percent from 2016. The total U.S. acreage was about 1.88 million acres. These numbers represent the highest levels of planted acres since 1991 in both Georgia and the U.S. Peanut yields were also on pace to set records in 2017. The November U.S. Department of Agriculture estimated yield was 4,600 pounds per acre in Georgia and 4,176 pounds per acre in the U.S. as a whole. Over the last 10 years, late-season yield estimates by the USDA have been lower than actual yields in all but the last two years. If the November estimate is realized, total production during 2017 will be 1.9 million tons in Georgia and 3.8 million tons in the U.S., both setting new records. The previous production record was 1.682 million tons in Georgia (in 2015) and 3.377 million tons in the total U.S. (in 2012). At the time of writing, final numbers have not been released, and there are indications that November estimates were too high, even though total production in the U.S. should be close to record levels.

The market did not expect such a high level of production early in the year. As the season progressed and timely rains occurred in Georgia, the potential for a record crop was realized. Even Hurricane Irma in early September was not enough to harm the Georgia peanut crop like it did other crops in the state. In fact, the amount of rain provided by Irma

was timely, needed and beneficial to Georgia peanut production. Some reports during harvest indicated that dryland peanuts looked as good, if not better, than irrigated peanuts. However, this varied significantly throughout the state with late plantings producing lower yields.

A bountiful peanut crop is certainly good news for the industry, but one must consider quality as well as yield. After peanuts are harvested, they are graded into three different classifications. Segregation 1 is the highest value peanut used in the edible market, Segregation 2 has excess damage that loses substantial value, and Segregation 3 has had aflatoxin detected and cannot be used in the edible market. During the last three years, 2014 through 2016, an average of 2.6 percent of the peanuts graded in Georgia were classified as Segregation 2 and another 1.1 percent were classified as Segregation 3. This changed in 2017, however, as less than 1 percent of the peanuts graded in Georgia were classified as Segregation 2 and only 0.1 of a percent as Segregation 3. Thus, 2017 peanuts in Georgia have been of high quality.

Peanut prices in 2017 also contributed to good news for the industry. Contracted peanuts in early 2017 were in the \$450 to \$500 per ton range. However, with good news comes bad news, and farmers who did not contract their peanuts faced few options at harvest other than entering the loan program and waiting for the market to develop.

Assuming total production does not reach November estimates and the industry is able to find new marketing opportunities to keep demand in pace with supply, redemptions will occur from the loan program throughout the year at prices better than the loan guarantee. This is a wait-and-see situation right now and will largely depend on the potential to continue high levels of exports.

The demand for peanuts remains strong in the U.S., with domestic food use continuing to increase and projected to be 3.2 billion pounds for the marketing year ending July 31, 2018. Crush is also expected to increase to 978 million pounds, up 11 percent from the prior year and 38 percent from two years ago. Exports are also expected to stay strong at 1.5 billion pounds. While the strength in both domestic and export demand is a positive signal for the industry, ending stocks are forecast at 2.5 billion pounds come the end of the marketing year. This is based on the November production estimates that are likely too high. It does appear, however, that ending stocks will be around 2 billion pounds, which would still be 38 percent higher than a year prior.

The U.S. Farm Bill Price Loss Coverage (PLC) program continues to make payments on peanuts, as prices have stayed below the reference price of \$535 per ton. The payment rate for the 2016 crop (paid in October 2017) was 7.05 cents per pound or \$141 per ton. This was before applying any

payment limits, base acreage limits and sequestration. This rate was \$8 per ton lower than the payment rate for the 2015 crop. One contributing factor to the payment issued for the 2016 crop was the low peanut prices that resulted from an error in the stocks reporting issued by the USDA. Had that error not occurred, 2016 crop prices would have been higher and the PLC payment issued in October 2017 would have been lower. USDA projections for the 2017 harvest indicate a PLC payment rate of 7.25 cents per pound (or \$145 per ton) issued in October 2018. This payment rate is most likely too high given the contracting that took place in the \$450 to \$500 per ton range. However, the final payment is dependent upon the entire marketing year through July 31, 2018, so a lot of time will pass before we know a final price. Factors that will contribute to this number include the amount of uncontracted 2017 peanuts and the potential for excess supply to put a downward pressure on price.

Looking ahead to 2018 and the projected large ending stock on July

31, there is a good indication that lower contract prices will prevail compared to early 2017. With the continued low price of other commodities, peanuts are one of the more viable options on farms in southern Georgia. Thus, we expect that 2018 will result in another year of greater than 700,000 planted acres. If this occurs, it would be the fourth year in a row, something that has not happened in Georgia since the early 1950s. After a year of strong yields, there will be concerns about high acreage and high yields continuing to produce record levels of production. This should depress contract prices and limit marketing opportunities.

In order to realize higher farm prices in 2018, some combination of two things must occur. Additional demand needs to be created and/or supply needs to be constrained. Demand continues to be on an upward trend both on the domestic market and for exports. New product innovation continues in the industry, which will help expand the demand for peanuts. The export market

also continues to be strong, but it is dependent upon trade agreements successfully being completed with favorable terms for agricultural commodities. China also continues to be a key player and export opportunities there should expand.

In addition to demand, supply is continually questionable. Farmers need to consider rotation after having consistently planted peanuts in an effort to capitalize on the current PLC program and higher prices compared to other commodities. While we expected this trend to negatively affect yield in 2017, we did not have that outcome. In a year without favorable weather conditions, we expect to see significantly lower yields as a result of this practice. The alternative to favorable weather in maintaining yields would be to increase the cost of production through additional chemical treatments to limit disease and/or additional irrigation events to counteract drought conditions. Thus, without incurring greater costs of production, we expect to see a decrease in overall production from where we expect 2017 to finish, but that will not be enough by itself to increase prices. A decrease in planted acres would also reduce future supply, and this will likely occur only if rotation crops increase in price and become a more competitive option.

Ultimately, there are a lot of unknown factors with respect to future prices at this time. As of late November, there have been no reported contracts for 2018. A price near \$400 is projected for 2018. When determining how to proceed with early marketing and planting decisions, farmers need to consider their individual risk tolerance and what makes sense for their business given their own financial situation.



Estimated Comparative Row Crop Net Returns

Amanda Smith, Adam Rabinowitz and Don Shurley

As of November 2017, commodity prices for the major row crops grown in Georgia are similar to what they were at this time last year. Cotton prices are expected to be up slightly from \$0.70 to \$0.72 per pound. Peanut prices are expected to be down because of abundant supplies resulting from record production. Corn, soybean and wheat prices are expected to be relatively unchanged from a year ago due to another year of excellent U.S. and global production and stable demand. From an input standpoint, fertilizer, fuel, labor and equipment prices are up slightly, and chemical and seed prices are mixed. This upcoming year will mean even tighter margins for growers compared to 2017. Producers need to thoroughly

evaluate expected prices, yields and costs before determining what to plant in 2018. Furthermore, they need to consider the impact that the farm bill safety net programs, such as crop insurance, the Stacked Income Protection Plan (STAX) for cotton, and the Price Loss Coverage (PLC) or Agricultural Revenue Coverage (ARC) programs for other commodities, may have on cash flow and net returns. Producers base planting decisions on expected price, input costs, historical and projected yield, crop rotation, availability of credit, potential government payments and weather expectations. Risk management tools, like crop insurance, are also part of the decision process. Figure 1 shows the

planted acres for select row crops in Georgia from 2013 through 2017. Producers' planting decisions in 2017 resulted in a nearly acre-for-acre shift from corn and soybeans to cotton and peanuts. For the third year in a row, Georgia producers increased cotton. They planted 110,000 more cotton acres than in 2016, bringing the state total of 1.29 million acres closer to the five-year average at 1.27 million acres. They also planted 120,000 more acres of peanuts, resulting in the highest total number of peanut acres planted (840,000 acres) in the state in over 20 years. This increase was due to the attractive peanut contracts offered to farmers at the beginning of 2017. Georgia producers planted less corn (down 120,000 acres)

and fewer soybeans (down 105,000 acres). Producers in Georgia planted 20,000 fewer acres of wheat in 2017 than in 2016 due to another year of low prices resulting from abundant domestic and global supplies of wheat. Grain sorghum acres remained unchanged at 20,000 acres, a historically low number of acres for Georgia.

Table 1 (overleaf) shows preliminary estimates of how net returns are likely to compare for Georgia row crops in 2018. Both nonirrigated and irrigated expected prices, yields, income, costs and net returns are shown for comparison. These are estimates of relative net returns based on current market conditions and expectations prior to planting. Expected income does not include potential payments received from government programs, such as the PLC or ARC programs, or the cotton-specific STAX crop insurance program. Expected yields and variable costs are based on the 2018 UGA enterprise budgets for corn, cotton, grain sorghum, peanuts, soybeans and wheat. These budgets and the 2018 Crop Comparison Tool can be accessed online at <http://agecon.uga.edu/extension/budgets/> or by contacting your local county Extension agent.

Budget estimates should be used as a guideline or starting point for individual operations whose yields and local prices for inputs will vary. Producers are encouraged to use the budgets by entering their own numbers to determine which crop enterprise will provide the highest net return to their operation.

Breakeven price and yield are included in Table 1 for producers to consider when making a pricing decision. The breakeven price is the price a producer must receive

to cover their variable costs, or operating expenses, at the expected yield (found in the third column in each table). The breakeven yield is the yield needed to cover variable costs given the expected price. The expected price for Georgia's major row crops is found in the second column of each table. Expected prices are estimates based upon current (November 2017) 2018 harvest time futures prices and adjusted for expected basis, except for peanuts.

The expected peanut price is a weighted average price based on contract expectations on limited quantities and anticipated harvest price. Expected cotton price includes a loan deficiency payment or marketing loan gain and accounts for expected adjustments for fiber quality. Producers should consider forward pricing a portion of their production at prices that have the highest probability of profit. The breakeven prices and yields shown do not include returns to land (land rent) and management (payment to the producer). A producer should account for these costs when marketing their crop.

Relative net returns for non-irrigated production appear to favor peanuts and cotton. Producers may also consider double-cropping some nonirrigated acres with wheat prior to planting cotton or soybeans. Irrigated production appears to favor cotton and peanuts followed by soybeans and corn. Producers should place priority on crop rotation when net returns are comparable among crops. Cotton acres should remain relatively stable in 2018. Corn and soybean acres are likely to increase. Peanut acres will most likely decrease as producers remain mindful of crop rotations. Wheat and grain sorghum acres are likely to remain low due to the depressed prices of wheat and the added costs associated with treating pests like sugarcane aphids on grain sorghum.

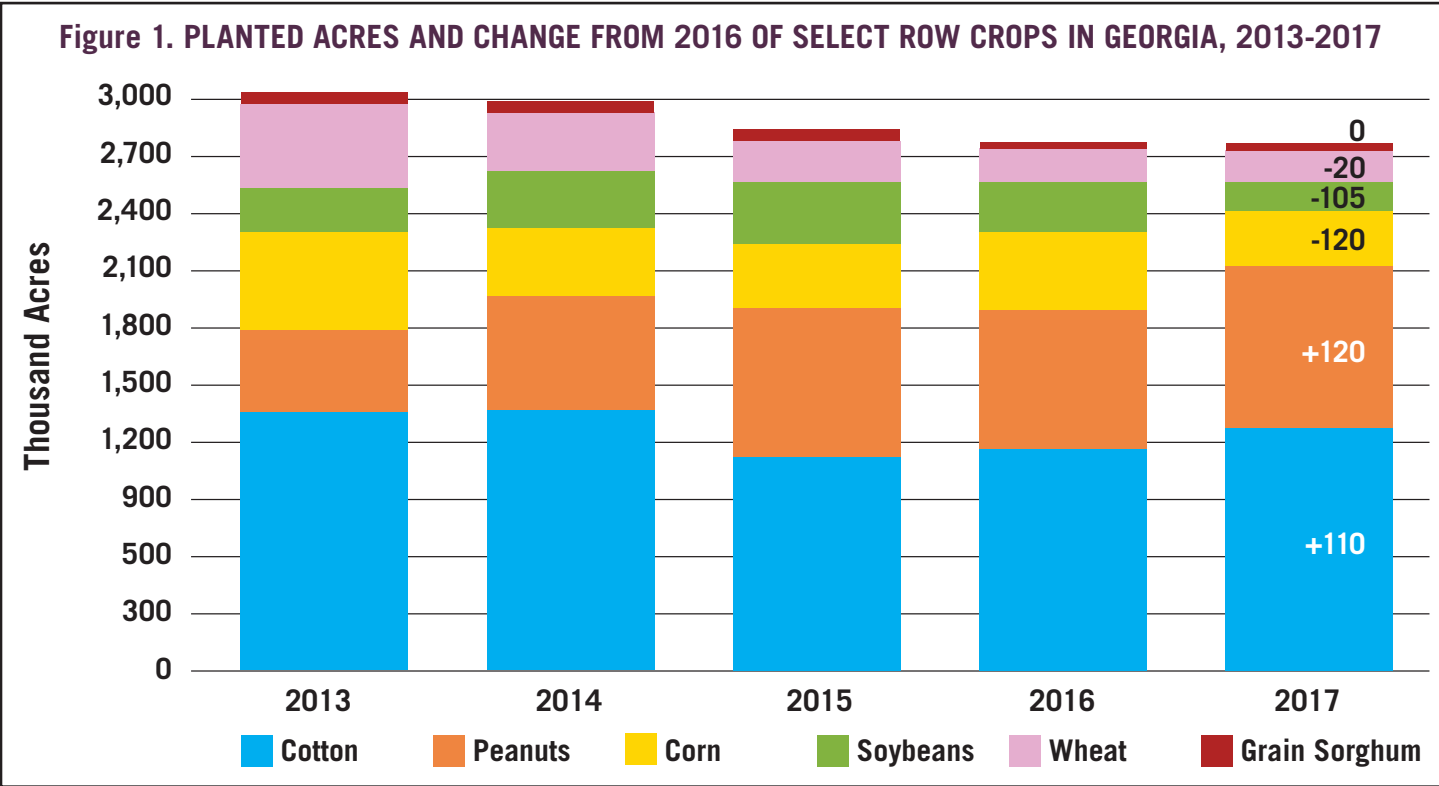


Table 1. PER ACRE NET RETURN ABOVE VARIABLE COST, BREAKEVEN PRICE AND YIELD.							
Nonirrigated Production							
	Expected Price ¹	Expected Yield Per Acre	Income Per Acre	Variable Costs per Acre ²	Net Return Per Acre ³	Breakeven Price	Breakeven Yield Per Acre
Corn	\$4.15/bu	85 bu	\$353	\$303	\$50	\$3.56/bu	73 bu
Cotton	\$0.72/lb	750 lb	\$540	\$435	\$105	\$0.58/lb	604 lbs
Grain Sorghum	\$3.85/bu	65 bu	\$250	\$210	\$40	\$3.23/bu	55 bu
Peanuts	\$400/ton	1.70 ton	\$680	\$550	\$130	\$324/ton	1.38 ton
Soybeans	\$9.50/bu	30 bu	\$285	\$210	\$75	\$7.00/bu	22 bu
Conventional Wheat	\$4.15/bu	55 bu	\$228	\$208	\$20	\$3.78/bu	50 bu
Intensively Managed Wheat	\$4.15/bu	75 bu	\$311	\$286	\$25	\$3.81/bu	69 bu
Irrigated Production							
	Expected Price ¹	Expected Yield Per Acre	Income Per Acre	Variable Costs per Acre ²	Net Return Per Acre ³	Breakeven Price	Breakeven Yield Per Acre
Corn	\$4.15/bu	200 bu	\$830	\$585	\$245	\$2.93/bu	141 bu
Cotton	\$0.72/lb	1,200 lb	\$864	\$549	\$315	\$0.46/lb	763 lbs
Grain Sorghum	\$3.85/bu	100 bu	\$385	\$315	\$70	\$3.15/bu	82 bu
Peanuts	\$400/ton	2.35 ton	\$940	\$635	\$305	\$270/ton	1.59 ton
Soybeans	\$9.50/bu	60 bu	\$570	\$270	\$300	\$4.50/bu	28 bu
<p>^{1/} Prices are 2018 harvest time futures price as of November 2017, adjusted for expected basis. Peanut price is weighted average based on contract expectations on limited quantities and anticipated harvest price. Cotton price includes an LDP or MLG and adjustments for fiber quality. Season average prices may vary. This analysis shows “relative” returns for comparison and ranking only.</p> <p>^{2/} Income per acre does not include government payments from PLC, ARC, STAX or other crop insurance programs.</p> <p>^{3/} Excludes hand-weeding, land rent, fixed costs, and any custom harvesting, storage, hauling, etc., if necessary. Due to volatility in the input markets, variable costs could change ±5%.</p> <p>Source: Data based on the 2018 UGA Enterprise Budgets for Corn, Cotton, Grain Sorghum, Peanuts, Soybeans and Wheat</p>							



The 2017 U.S. cotton crop was impacted by two hurricanes, Harvey and Irma, and yet may still be larger than most could have predicted. Despite the larger crop, prices have improved due to strong exports and improved demand. The dynamics of the global cotton situation have changed within just a few years, and the outlook appears to now have a more positive foundation.

This is not to say we will return to 80-cent cotton or that the days of prices in the 60-cent range are behind us — but the problems that led to supply-demand imbalance over the past few years have improved. Crop futures prices for 2017 are back over 70 cents and approaching the previous range of contract highs. Crop futures prices for 2018 are also over 70 cents.

Basis remains strong, and producers will likely have opportunities to price a portion of expected 2018 production at 72 to 75 cents. Factors impacting 2018 crop prices include U.S. plantings and production; global demand; Chinese production, stocks and imports; and U.S. exports.

U.S. Acreage and Production

Cotton producers planted 12.62 million acres in 2017 — the second consecutive year of increased planted acreage and the highest acreage since 2011. Acreage has now increased 47 percent since the low in 2015. Acreage has rebounded especially in the mid-South (Arkansas, Louisiana, Mississippi, Missouri

and Tennessee). The increase is due primarily to lower corn and soybean prices and improved relative net returns for cotton.

The 2017 crop is currently projected at 21.38 million bales. The net overall size of the crop has increased despite losses in Texas and Louisiana due to Hurricane Harvey and in Georgia due to Hurricane Irma. Despite U.S. Department of Agriculture estimates to the contrary, the 2017 crop is still in question — some analysts still believe that the final crop will be lower than the current estimate. This factor has helped to support 2017 crop prices and the early outlook for the 2018 crop.

Acreage in 2018 is not expected to be much different than 2017. The earliest industry and USDA estimates will be released in January through March. Based on yields and acres harvested as a percentage of acres planted for the past five years, if acres planted in 2018 are similar to 2017, total production could be 19.22 million bales — 2.16 million bales less than 2017.

Crop futures prices for 2018 are currently about 71 cents. This compares to futures prices of mostly 72 to 75 cents during the planning and decision-making time prior to planting the 2017 crop. Compared to last season, current relative price ratios are slightly more favorable toward corn and soybeans. Any acreage shift this may cause would be expected in the mid-South and North Carolina and Virginia in the Southeast.

Demand Improving

World demand or use for the 2017 crop marketing year that ends July 31, 2018, is projected at 119.25 million bales (USDA, November 2017). If realized, this would be 15 million bales, or a 14 percent increase, since the most recent low in the 2011 crop year.

The first USDA projection for the 2017 crop year was 115.75 million bales. The latest estimate is 3.5 million bales higher. The rebound since 2011, and specifically, the large revisions made for the 2017 crop, have fueled optimism about the outlook.

World cotton use peaked at roughly 124 million bales but declined 10 million bales, or 16 percent, to a low of 104 million bales for the 2011 crop year. Use has slowly begun to recover, and if projections for the 2017 crop year hold true, this will be only 5 million bales below the peak of 2005. This rebound in use is significant for two reasons. First, usage is one-half of the supply/demand equation. Increased demand sets the foundation for higher prices depending on what happens on the supply side. Secondly, demand and demand growth ultimately determine how much production (and planted acreage) is needed both here in the U.S. and abroad. In other words, demand is the key component to a vibrant, growing U.S. cotton industry.

China and Foreign Situation

World stocks were 111.15 million bales at the end of the 2014 crop marketing year, and 66.9 million bales, or 60 percent, of those stocks were in China. Globally, stocks were the equivalent

of more than a year’s use. In China, stocks were equal to almost two years of use. The massive buildup of stocks was due to declining demand and several years of production exceeding demand.

For the past two years, China has had a successful program of selling a portion of these stocks for mill use within its own country. Availability of these stocks appears to have helped kickstart China’s mill industry. In recent years, China has reduced its area planted and limited imports in an effort to utilize its stocks. Entering the 2018 crop year, it is projected that stocks in China will be 39.67 million bales, a 41 percent reduction, and world stocks will be 90.88 million bales. Stocks in China and the rest of the world are still large by historical measure, but the decline has moved stocks in the right direction.

China’s mill industry currently uses about 38 to 39 million bales of cotton per year. China produces only 24 to 25 million bales. This “China Gap” is filled by imports and utilizing stocks. China’s cotton production has increased somewhat but is still below historical levels.

If China’s use continues to rebound, it could create the need for more imports depending on its production and stocks situation. Exports account for almost three-fourths of the total demand for U.S. cotton. China is still one of our major markets, although they are currently limiting imports. Eventually, China will likely ramp up its imports — it would be a matter of when, by how much and the pace of it happening. This could bode well for prices.

Exports and U.S. Market Share

U.S. cotton exports are projected at 14.5 million bales for the 2017 crop year. This compares to 14.92 million bales for 2016, the second highest year on record. These levels of exports are quite an achievement and are due to improving demand and increased trade share for the U.S.

Although export sales to China have been limited, China has still been a major buyer. Vietnam and Bangladesh have also become major users and importers of U.S. cotton. Other major buyers include Indonesia, Pakistan, Turkey and Mexico.

U.S. market share (the percent of total world exports) has increased in recent

years. The U.S. currently accounts for 38 percent of all exports. The increase in market share is due to increased U.S. production and available supply, lower production in competing exporting countries, and strong demand for high-quality U.S. fiber.

Crop exports in 2017 may exceed the current 14.5 million bale estimate. Export sales for the 2017 marketing year are strong and far ahead of the previous year’s pace. Should the U.S. crop get smaller and should exports continue to be strong, this could provide price support for the remainder of the 2017 crop year and 2018 contract opportunities.

Georgia Situation

Georgia farmers planted 1.29 million acres in 2017, up 110,000 acres from 2016. Cotton and peanut acres were up; corn and soybeans were down. Thus far in the 2014 U.S. Farm Bill, peanut acreage has averaged up 182,000 acres and cotton has averaged down 180,000. This is compared to 2014, because 2015 was effectively the first year of making acreage decisions under the 2014 farm bill due to late passage and delayed signup.

Cotton acreage in Georgia has proven to be very stable. This is due to there being few competitive crops with the exception of peanuts, and peanut acreage, while being up, is limited due to crop rotation. Georgia cotton yields and fiber quality have improved markedly and the basis for good quality fiber has been strong.

Cost of production continues to be a concern, but cotton and peanuts continue to be the front-runners in net returns. The price the cotton farmer receives for cottonseed has declined significantly since 2015. This adds about \$25 to \$45 per acre to the cost of production depending on yield.

Georgia cotton acreage in 2018 is expected to be about the same as 2017. This will depend on prices as we approach planting time as well as the peanut situation.

Policy Update

Efforts continue to improve the income safety net for cotton — for the remainder of the current farm bill (2018) and in the next farm bill (beginning with the 2019 crop year). The House has passed a supplemental disaster funding bill which contains an agriculture component. The

bill also includes language that would establish seed cotton, a combination of both lint and seed, as a covered commodity and with ARC and PLC eligibility.

This policy, if approved, would begin with the 2018 crop. Landowners would have several options to convert the generic base on a farm to seed cotton base and/or bases of seed cotton and other covered commodities, based on a history of acres planted to cotton and covered commodities. Generic base and its provision of earning temporary base of covered commodities based on acres planted would cease to exist. It is hoped that a seed cotton program would carry forward to the new farm bill beginning in 2019.

The Senate is expected to take up the bill in early 2018. Changes are likely. The bill is wide ranging and expensive. Any differences between House and Senate versions must be resolved. Depending on timing and if the cotton proposal survives to a final bill, landowners could have a narrow window to make decisions on how to convert generic base acres.

Efforts also continue to extend the Cotton Ginning Cost Share (CGCS)

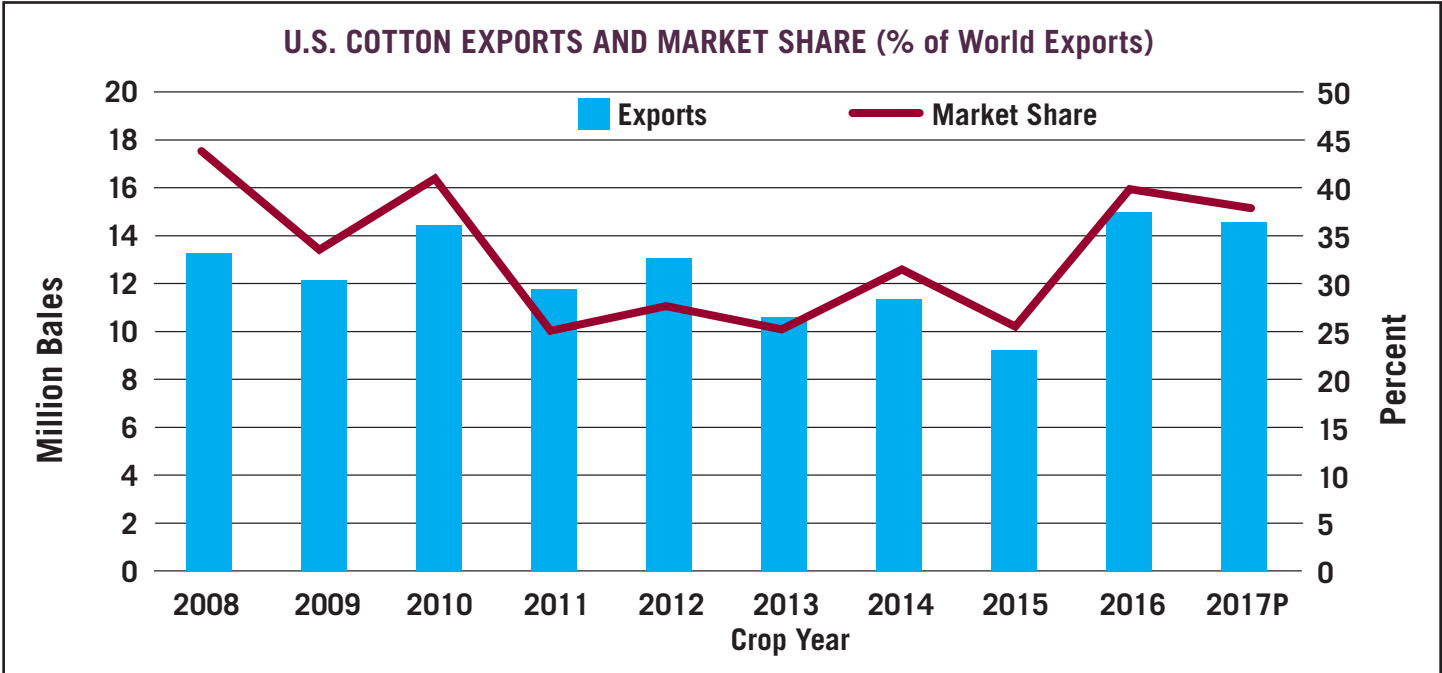
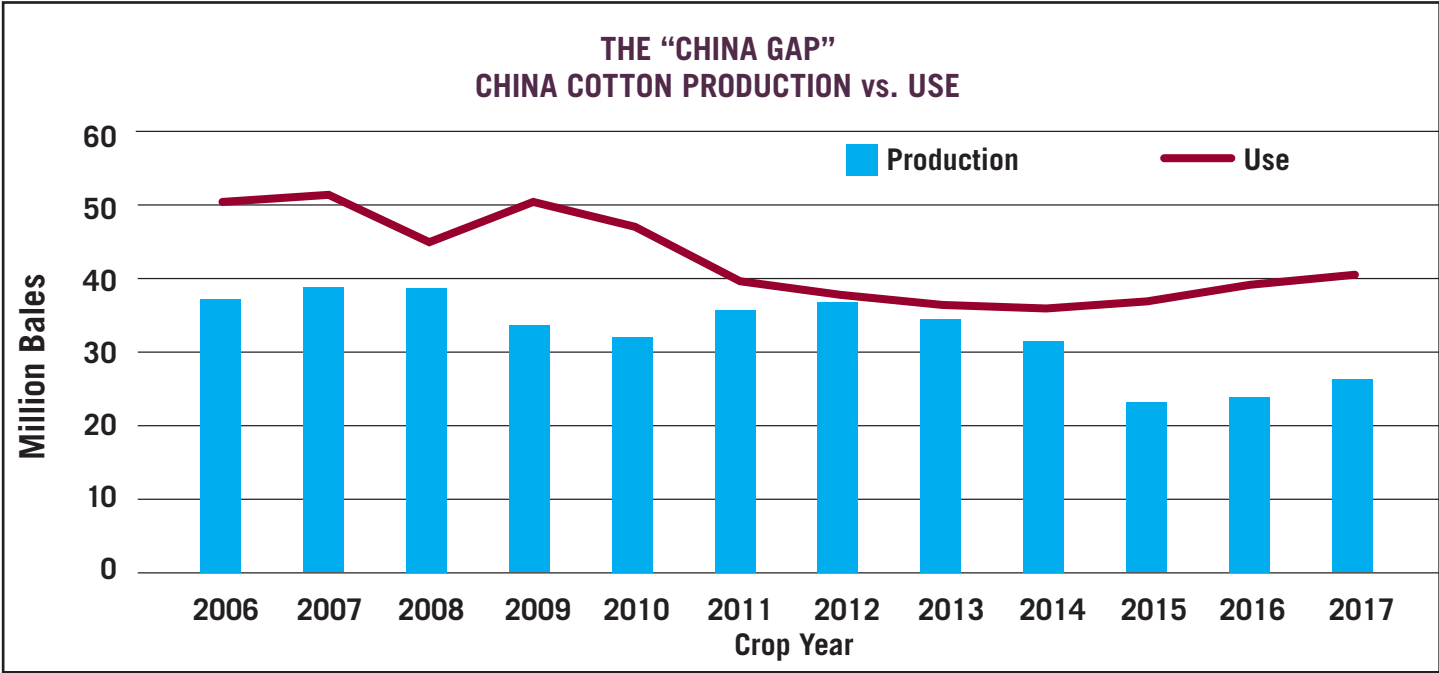
program to include 2016 acres planted. If approved by the USDA, it is expected that the payment would be roughly one-half of the 2015 amount.

Summary Outlook

The dynamics of the global cotton situation have changed from just a few years ago and the outlook appears to now have a more positive foundation. Acreage in 2018 is not expected to be much different than 2017. Production could be 2 million bales less than 2017.

World cotton demand has improved. World and Chinese stocks have declined. U.S. exports have been strong and U.S. market share has increased. Potentially lower U.S. production in 2018 coupled with improved demand and strong exports should provide support for 2018 crop prices.

December 2018 futures are currently around 71 cents. Basis remains strong and producers are likely to have opportunities to price a portion of expected 2018 production at 72 to 75 cents. Depending on the factors discussed, a range of mostly 67 to 73 cents on December 2018 futures is likely.





The producer price index (PPI) is an economic indicator that depicts the different prices farmers receive for produce every year. Although the PPI for fruits and nuts started off strong in 2016 compared to the previous three years, 2017 experienced a sluggish start due to a bumper harvest of many fruit and nut crops that put a downward pressure on prices received (Figure 1).

Similar to the PPI, the consumer price index (CPI) took a nosedive, with a 4.3 percent decrease in the first quarter of 2017 compared to last year, but it quickly recovered in the second quarter. Due to the increased production of several domestic and imported fruits from Mexico and Chile, retail prices for fruits such as blueberries, strawberries, oranges, apples and grapes declined, putting

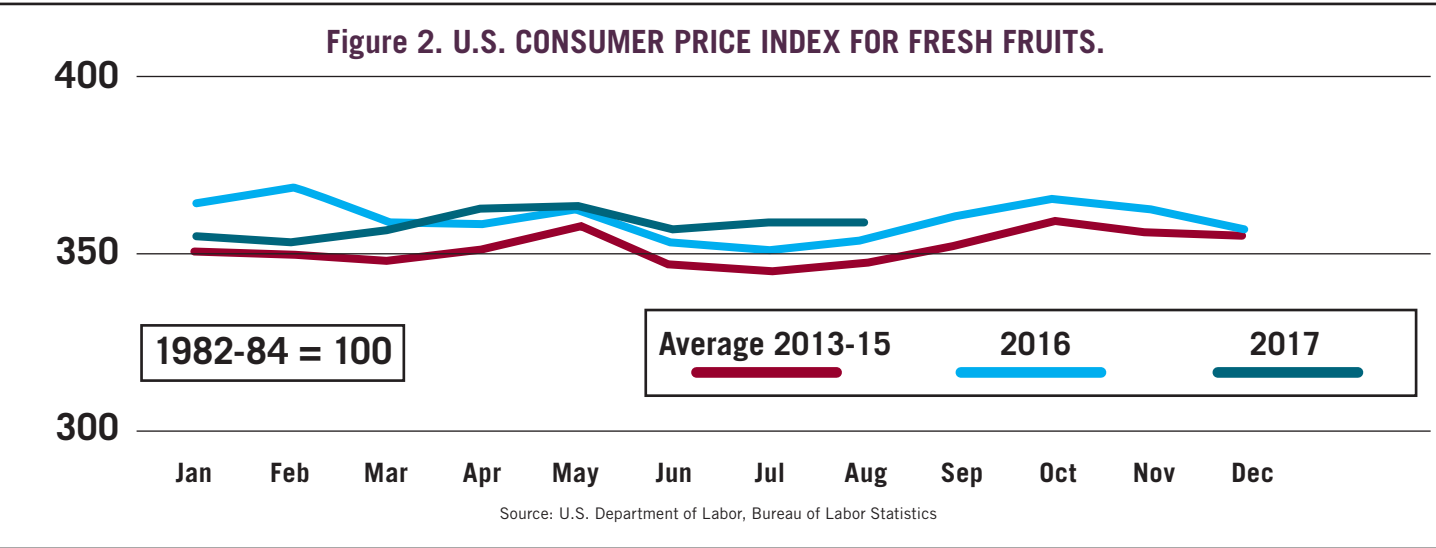
downward pressure on the overall CPI in the first quarter (Figure 2).

Per capita consumption of fresh blueberries is expected to increase in 2018. In 2016, it was 1.71 pounds, and in 2015, it was 1.58 pounds. This is welcome news for Georgia blueberry growers as the state continues to dominate the industry. Georgia production will continue to increase due to an increase in acreage and better agricultural practices, although national production has been declining since 2014.

Despite the rapid growth of blueberry production, importing blueberries is a necessary and sufficient condition of meeting local demand (Figure 3). Due to favorable growing conditions caused by a mild winter, blueberry harvesting started in early March 2017 in Florida with

a bumper crop that put a downward pressure on prices. The increased import volume from Chile and Mexico also contributed to the low prices of spring 2017. In early spring 2017, blueberries from Mexico were sold at \$12 compared to \$19 per flat of 12 6-ounce cups in 2016. With another mild winter in 2017-2018 and a bumper crop, chances are that prices will not improve. However, if the damage caused by Hurricane Irma in Florida and Georgia is significant enough to reduce the overall quantity of blueberries produced, then we might see prices go up.

Although it's now classified as fruit, watermelon ranks high in the top five vegetables produced in Georgia in terms of farm gate value. Due to increased production in Florida,



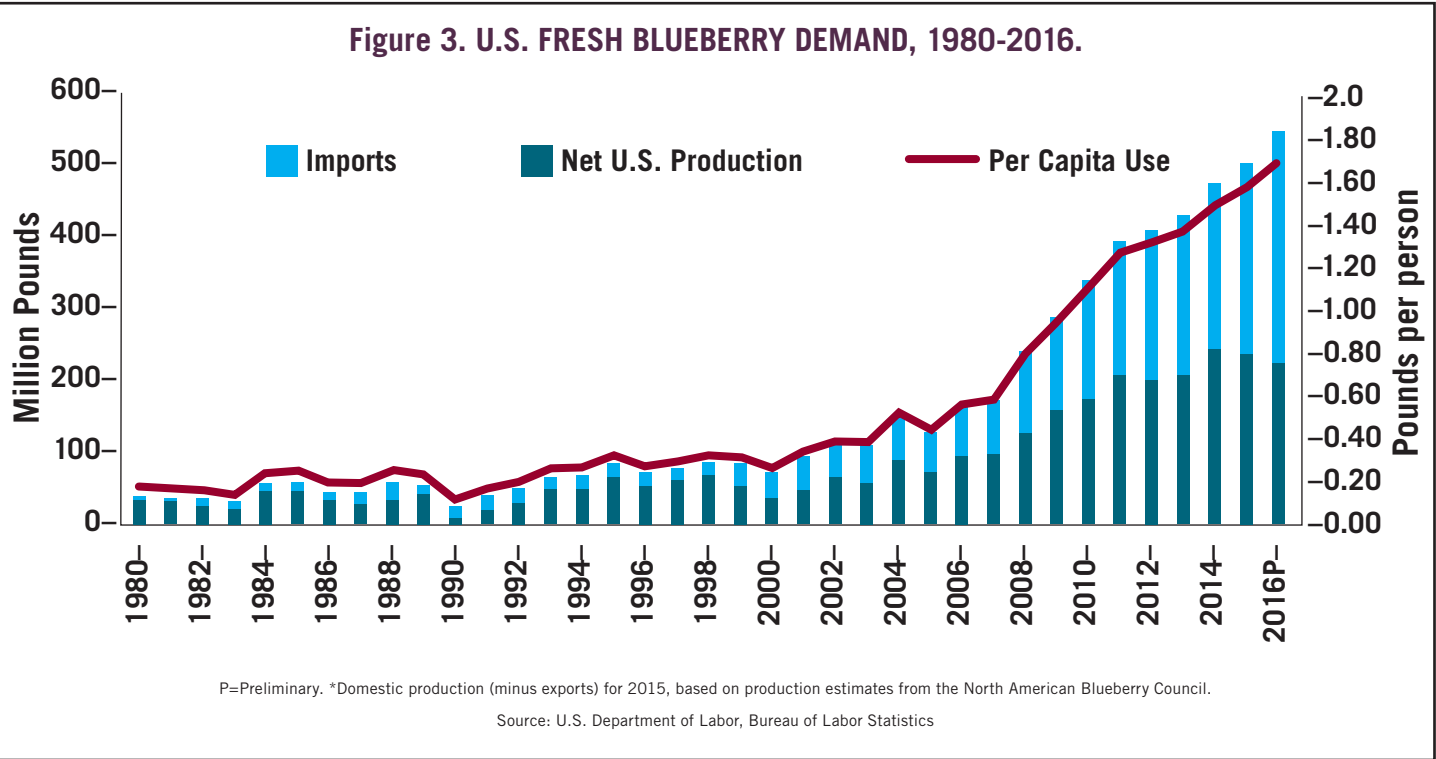
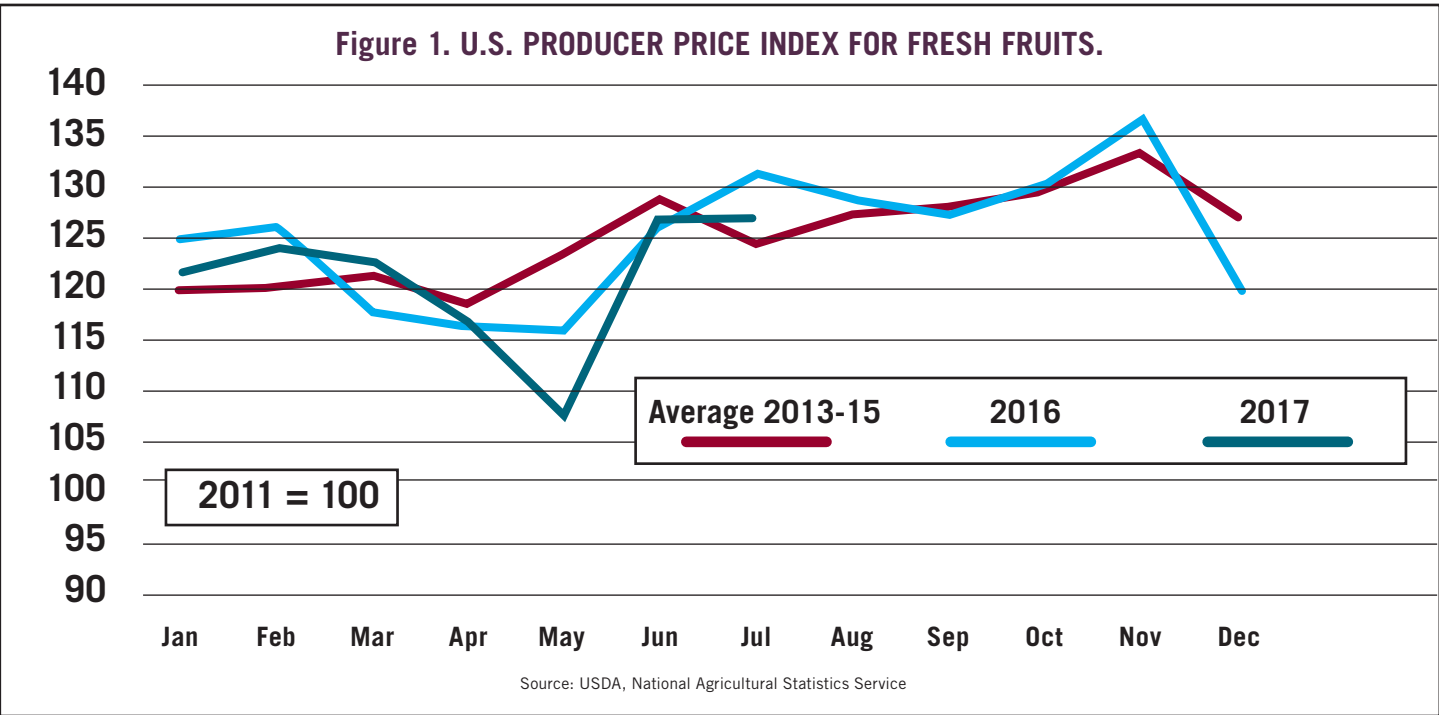
Texas, California and Georgia, the top-producing states chronologically, total U.S. production has been on the rise since 2014. Similar to blueberries, import demand is needed to meet domestic consumption, which is also at an all-time high (Figure 4, overleaf).

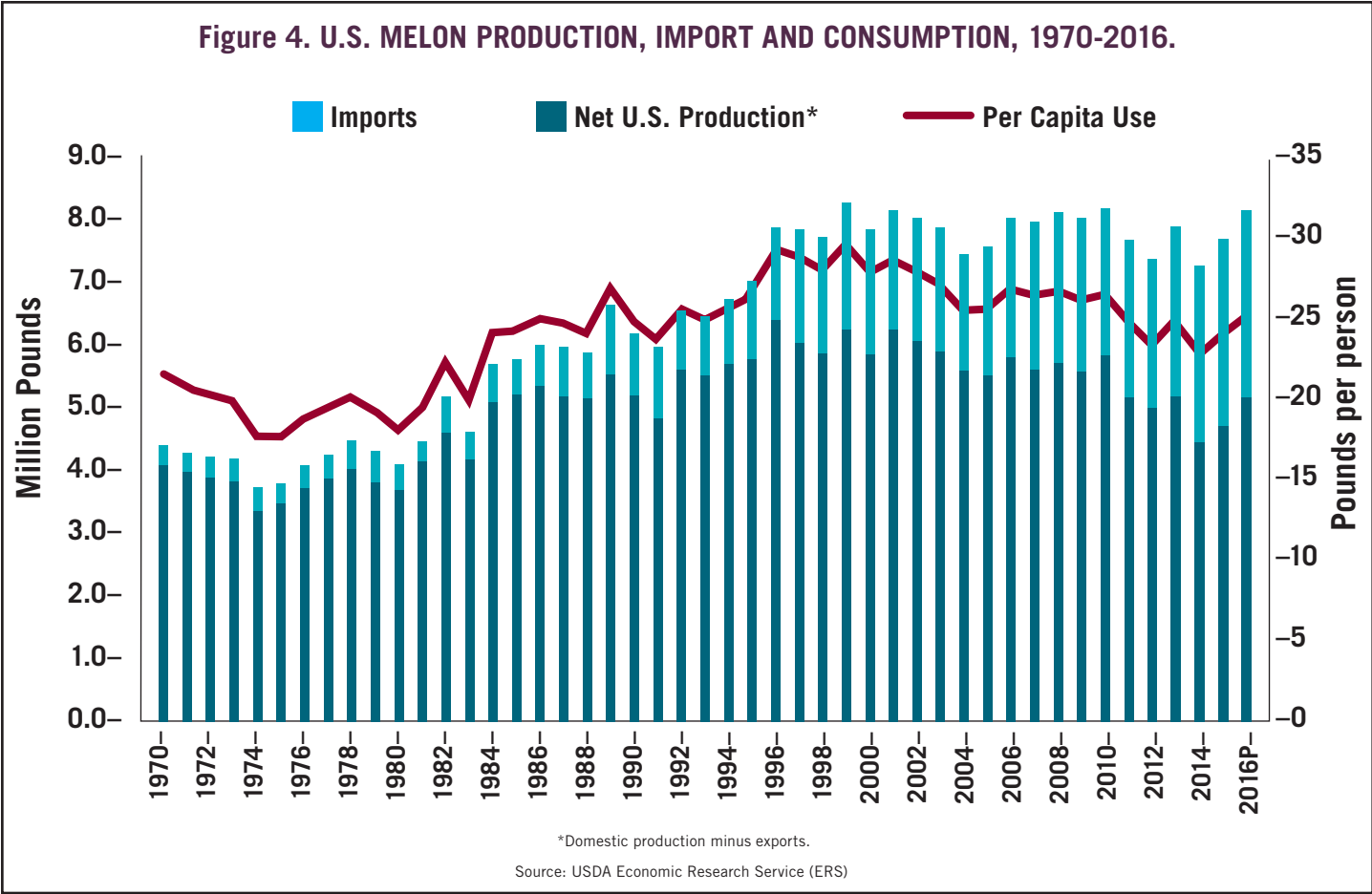
The U.S. Department of Agriculture report shows that 1.71 billion pounds worth \$329 million were imported in 2016, and this trend is expected to

continue in 2018. Although our main importing countries are Mexico, Costa Rica, Honduras, Brazil and Canada, 84 percent of the total 2016 import came from Mexico. If the U.S. backs out of the North American Free Trade Agreement (NAFTA) between Canada, Mexico and the U.S., there will be a huge impact to the three countries involved and to the fruit and vegetable industry at large.

Although California, the No. 1

peach-producing state, is expected to increase production this year, Georgia and South Carolina, which both rank within the top five peach-producing states, suffered a heavy loss from low chill hours, an early bloom and a late-spring freeze. This significant loss in Georgia and South Carolina may create an unexpected shortage and increase peach prices.





The North American Free Trade Agreement (NAFTA) has been a topic of interest during the 2016 U.S. presidential campaign and throughout President Trump’s term in office. It is widely believed that NAFTA has actually improved and expanded trade between its partners, Canada, Mexico and the U.S., since it was enacted in 1994. Despite its flaws, pulling out of the agreement, as threatened by President Trump, may not be a sound political and trade policy. For instance, one of the proposed reasons for pulling out is that even though the U.S. agriculture sector has experienced some benefits from NAFTA, the specialty crop industry has been marginalized and seen little or no benefit, especially

in the Southeast region. It is worth recalling that the specialty crops sector became a strong economic force only a decade ago, when it finally appeared as Title X — Horticulture and Organic Agriculture of the 2008 U.S. Farm Bill. Total U.S. vegetable and pulse area harvested increased by 6.3 percent in 2016 compared to 2015, whereas total per unit value decreased by 6.5 percent. On the other hand, total production decreased by 0.4 percent in the same time period. In 2016, U.S. fresh vegetable production was roughly 365 million hundredweight (cwt) and per capita consumption was roughly 145 pounds, up by 2.4 percent from 2015. With the current population of roughly 326

million Americans, we need to produce 47,270 million cwt to meet domestic consumption. In the same light, our total vegetable and pulse production was 1,289 million cwt in 2016. With a 1.6 percent increase in per capita consumption, we need 124,858 million cwt of vegetables and pulses to meet total domestic consumption (Table 1). This explains why it is absolutely necessary for us to import vegetables and pulses from other countries to meet domestic consumption.

According to the U.S. Department of Agriculture (USDA) Economic Research Service (ERS) report, fresh vegetable imports totaled \$7.5 billion in 2016, a 13 percent increase compared to 2015. Although the

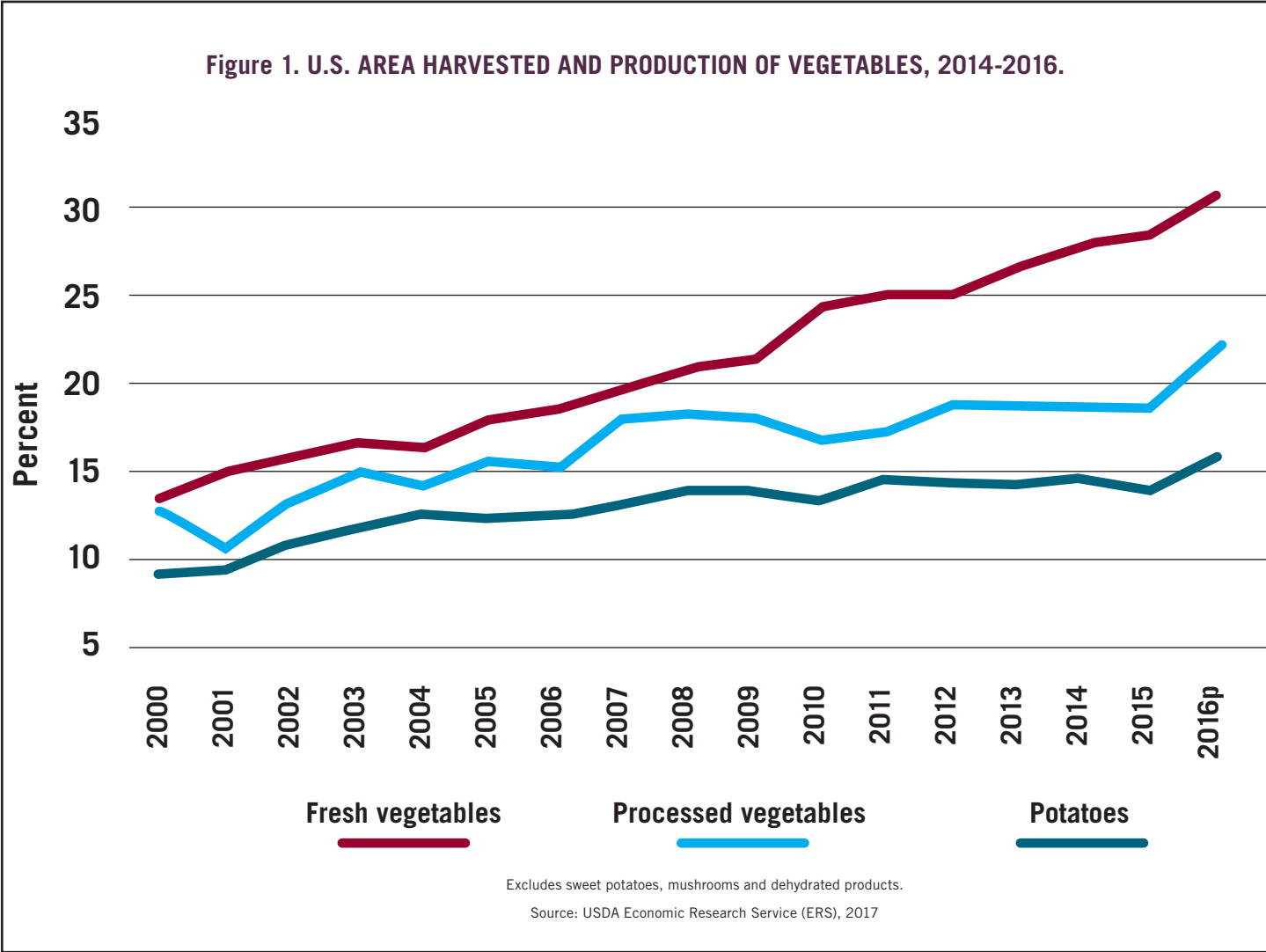
Table 1. U.S. AREA HARVESTED AND PRODUCTION OF VEGETABLES, 2014-2016					
Area Harvested	Unit	2014	2015	2016p	Percent Change 2015-2016
Vegetables, fresh	1,000 acres	1,402	1,393	1,392	-0.1
Vegetables, Processed	1,000 acres	1,098	1,076	1,007	-6.4
Potatoes	1,000 acres	1,051	1,054	1,008	-4.4
Dry beans, peas and lentils	1,000 acres	2,824	3,291	3,833	16.5
Other ²	1,000 acres	138	156	167	6.5
Total	1,000 acres	6,513	6,970	7,406	6.3
Production	Unit	2014	2015	2016p	Percent Change 2015-2016
Vegetables, fresh	Million cwt	369	358	365	2.0
Vegetables, processed	Million cwt	400	402	374	-7.2
Potatoes	Million cwt	442	440	440	0.0
Dry beans, peas and lentils	Million cwt	50	54	69	29.0
Other ²	Million cwt	39	40	41	1.5
Total	Million cwt	1,300	1,295	1,289	-0.4

Source: Vegetable and Pulses Outlook/VGS-358/April 28, 2017, USDA Economic Research Service (ERS)

major U.S. suppliers were Mexico, Canada, Peru and China, 87 percent of total volume came from NAFTA partner countries, Mexico (74 percent) and Canada (13 percent). This also explains why NAFTA will continue to play an important role in the trade relations between the three countries. Suffice to say, instead of completely pulling out,

renegotiation of certain aspects of the agreement, such as improving the H2A programs and facilitating the process of securing farm labor, could provide partial solutions that would be beneficial to our growers. Figure 1 shows a persistent percentage of growth in fresh, processed vegetables and potatoes from 2000 to 2016. Fresh vegetables

were at their peak in 2016, with a 130 percent increase from 2000 (Figure 1). This trend and the demand for vegetables is expected to continue increasing in 2018, especially given that the per capita availability and population continue to increase.



Corn, Wheat and Soybeans

Adam Rabinowitz

Corn, wheat and soybean acres all decreased in Georgia during 2017. Even with increasing yields, this is projected to decrease total production in the state for all three crops. While there were some expectations a year ago for a slight rebound in prices, this did not occur, and prices for all three commodities remain low. With large current inventories and projected increasing ending stocks, there is little confidence in a significant upward trend in prices. It will likely take a major weather event somewhere in the world to adversely affect production before we see a significant price increase. Current North American Free Trade Agreement (NAFTA) discussions are also important to watch, as this is critical for continued strong exports to Canada and Mexico.

Corn

After a 24 percent increase in acreage in 2016, growers in Georgia decreased corn acres by 29 percent in 2017 to 290,000 acres. This is 21 percent below the 10-year average and is the fewest number of planted acres since 2006. Harvested acres for 2017 are projected to be at 250,000. The average yield is projected to be at a near record level at 179 bushels per acre, 10 percent higher than the 10-year average and second only to the record of 180 bushels per acre set in 2012. If projected yields hold true, production will be 44.8 million bushels; however, there have been reports that indicate yield will not meet these levels for 2017.

Total U.S. corn production is projected to be down to 14.6 billion bushels in 2017, a 3 percent decline from 2016 but the second-highest production on record. The decrease in production was a result of a 4 percent decline in planted acres. Overall corn yields in the U.S. are projected at a record of 175.4 bushels per acre. Ending stocks for corn are projected to continue rising to almost 2.5 billion bushels, representing the highest level since 1987-88.

Exports of U.S. corn have improved in 2017, largely due to challenges with Ukraine exports and increased demand in Mexico. This continues to stress the importance of agricultural trade with Mexico as NAFTA talks continue between the U.S., Mexico and Canada.

Total corn use in the U.S. for the marketing year ending August 31, 2017, totaled 14.6 billion bushels. This included food, seed and the industrial use of 6.9 billion bushels; feed and residual use of 5.5 billion bushels; and exports of 2.3 billion bushels. For the 2017-18 marketing year, projections are for increases in all uses of corn, although ending stocks are also expected to increase come August 2018, the end of the marketing year.

Corn prices have been on a steady decline given the strong production of recent years and the projections of increased stocks. Total U.S. farm prices dropped to \$3.27 in September, but futures markets indicate a slight increase into next year. In Georgia, the forecasted prices for corn during the harvest of 2018 have a positive

basis and are expected to be in the range of \$4.06 to \$4.23.

Wheat

Georgia's planted acres dropped to 160,000 acres in 2017, while harvested acres dropped 36 percent to 70,000 acres. The crop was far below the 10-year average crop of 280,000 acres planted and 210,200 acres harvested. While the average yield increased one bushel per acre from the prior year to 47 bushels per acre, this too was below the 10-year average of 49 bushels per acre. Producers were slightly ahead of the five-year average harvest rate at the end of May, with almost all harvest completed by the end of June. Total production in Georgia in 2017 dropped by 35 percent to 3.29 million bushels. This level of production represents an 84.8 percent decrease from the recent high in 2013 and a 70.8 percent decline from 2014.

For 2017-18, the soft red winter wheat production is projected to decrease by 53 million bushels to 292 million bushels, well below hard red winter wheat and just 17 percent of all wheat. Total winter wheat acreage is estimated to be down 3.4 million acres to 32.7 million planted acres in 2017. With yields back down from record levels, production of all winter wheat is projected to decrease by 24 percent to 1.3 billion bushels.

Total U.S. wheat production decreased in 2017 with a drop in acreage and a decrease in yields. Total supply has dropped with the decline in production; however, there is still

a substantial buildup of stocks. Total production of all U.S. wheat for 2016-17 is down 25 percent to 1.7 billion bushels. This level of production is the lowest since 2002. The carryover U.S. wheat supply grew in 2016-17 to reach 1.2 billion bushels by the end of the marketing year. With the decreased production estimated in 2017-18, ending stocks will drop but are still forecast to be above most recent years.

The 2016-17 global wheat production set a record of 753.3 million tons. While projections are slightly down from that record for 2017-18, total world wheat production is forecast to be 744.9 million tons and has recently been revised upwards. Close to record global wheat production is projected for 2017-18.

Total use of all wheat in the U.S. increased in 2016-17 to 2.219 million bushels. Projections for 2017-18, however, show a slight decline to 2.141 million bushels. The decrease is expected to mainly be in exports as a result of increased global competition. The percentage breakdown of major U.S. wheat use includes food use (44.4 percent), exports (45.5 percent), feed and residual use (7 percent) and seed use (3.1 percent).

Total use of soft red winter wheat is projected to be 307 million bushels in 2017-18. This represents a 4 percent decrease from 320 million bushels in 2016-17. The decrease is attributed to an 18.5 percent decrease in feed and residual use. Food use is projected to stay the same while exports are expected to drop 1.8 percent. The percentage breakdown of major U.S. soft red winter wheat use includes food use (48.9 percent), exports (29.3 percent), feed and residual use (17.9 percent) and seed use (3.9 percent).

Prices for all wheat in the U.S. have been on a steady decline in

recent years, falling almost \$1 per bushel each of the last four years. The marketing year annual price in 2016-17 averaged \$3.89 per bushel, the lowest price since 2005. Since the middle of the 2016-17 marketing year, the price of all wheat has started to increase, with the September 2017 price at \$4.65 per bushel. Prices have been dropping, though, with future prices falling closer to \$4 in late 2017 before increasing again to the mid-\$4 range in the middle of 2018. Georgia prices for 2018 are forecast to range from \$4 to 4.26 per bushel with a negative basis.

Soybeans

Planted soybean acres in Georgia declined for the second straight year, back to 2011 levels of 155,000 acres, of which 145,000 acres are to be harvested. Yields are back up to a projected 40 bushels per acre after falling below 40 bushels in 2016 for the first time in four years. Even with the increased yield, the declining acreage projects a 2017 total production of 5.8 million bushels, 19 percent lower than 2016.

Once again, while there is lower production in Georgia, this is not what is occurring on a national level. U.S. yields are down from near record highs of 52 bushels per acre in 2016 to a projected 49.5 bushels per acre. Planted acres, however, have surpassed 90 million acres for the first time ever, with 90.2 million acres planted and 89.5 million acres projected to be harvested. This will result in a crop of 4.4 billion bushels of soybeans, a U.S. record surpassing the record of 4.3 billion bushels set in 2016.

Use of soybeans continued to increase in the 2016-17 marketing year. Crush was up slightly to 1.9 billion bushels for the U.S. Seed and

residual use also increased to 141 million bushels. Exports were up the most, 12 percent, to 2.2 billion bushels. While the total use of soybean continues to increase for the 2017-18 marketing year, the second year in a row of record production is projecting ending stocks at 425 million bushels on August 31, 2018. If realized, this would be 116 percent higher than the ending stocks just two years prior.

Soybean prices in the U.S. have stayed in the \$9 range for a year after briefly reaching \$10 in the summer of 2016. The September 2017 price of \$9.35 is up from the year low of \$9.10 in June. Futures prices indicate an increase above \$10 per bushel by early 2018 and up to \$10.25 by midsummer. With a slight negative basis, prices in Georgia during the 2018 harvest are forecast to be between \$9.52 and \$9.61.



Georgia beef cattle producers started the year in a serious drought that did not lift state-wide until late July, according to drought monitor data. Short hay supplies in Georgia and neighboring states resulted in higher prices that put pressure on profits for many producers. Later in the year, though, the typical seasonal steer price decline did not materialize, primarily because of very strong feedlot demand. Overall, steer and heifer prices in Georgia were stronger in 2017 than in 2016 starting about halfway through the second quarter, meaning that the overall marketing situation improved for the spring calving herd. While prices are still well below the sky-high record prices in 2014 and early 2015, supply and demand conditions have normalized to some extent, implying improved prospects for cost and marketing planning in 2018.

Supply Outlook

The beef herd has grown quickly over the past few years recovering from a significant drought in the western U.S. A look at nationwide supply factors provides insight into the current pace of growth of the herd and, ultimately, some idea of when the herd size will level off. Except for drought problems here in the Southeast and in Montana and the Dakotas, the bulk of the supply chain has benefited from relatively plentiful forage and low feed prices in 2017. In spite of this, we continue to see signs of a slowdown in herd expansion.

Heifer slaughter in 2017 exceeded 2016 slaughter in every week of the year and moved above the 2011-2015 average (which includes some very high

heifer slaughter numbers from the herd reduction during those years) in August. Beef cow slaughter was similarly high in 2017. If herd growth levels off in 2018, we will likely see herd numbers in the neighborhood of 35.5 to 36 million head, similar to 2009 levels. The U.S. Department of Agriculture predicts that steer prices will fall in 2018 which implies continued but slower herd growth during 2018.

The primary reason for unseasonably high steer prices in late 2017 is strong feedlot demand for feeders. Low feed prices and relatively strong wholesale beef prices have strengthened profits for feedlots and packers, which has kept feeder prices relatively strong through the year. Steer slaughter has met or exceeded 2016 slaughter nearly every week during 2017 and carcass weights are lower than in 2016 and are much closer to the 2011-2015 average.

Feedlot placements will likely slow in 2018, which will weaken feeder and steer calf prices to some extent. The futures market implies a 10 to 12 dollar per hundredweight decline in price from November 2017 to November 2018. Specifically, the price range for 550 lbs. No. 1 & 2 medium and large steer calves in Georgia range from \$142-152 for the end of November 2017 and a range of \$130-\$143 for the end of November 2018. The strength of calf prices will depend to a large extent on how consumers respond to continued increases in beef, pork and chicken prices at the meat counter.

The USDA reports a 3.7 percent increase in U.S. beef production from 25.29 billion pounds in 2016 to 26.22

billion pounds in 2017. Production will increase another 4.5 percent in 2018, climbing to 27.4 billion pounds. Imports fell 2.4 percent from 3.02 billion pounds in 2016 to 2.94 billion pounds in 2017 and will likely fall another 7% to 2.74 billion pounds in 2018.

Domestic Demand Outlook

Beef prices at the retail and wholesale levels remained generally elevated relative to the 2011-2015 average and were broadly consistent with 2016 prices for much of the year. Retail beef prices started the year below 2016 prices but increased during grilling season before declining in August through the last quarter of the year. Wholesale ribeye, chuck and round prices followed a similar pattern, while loin prices were generally consistent with 2016 prices throughout the year.

Given the increases in the production of beef and competing meats, these relatively strong prices are an indicator of strong consumer demand, and potentially, a shift in consumer preferences toward beef. Specifically, beef's status as a healthy food combined with continued improvements in the domestic economy may be causing consumers to prefer beef over other products. Although the consumer price index calculations indicate that 2017 retail beef prices will be 0.75 to 1.75 percent lower than 2016 prices overall, prices are expected to rebound in 2018 and increase 1.5 to 2.5 percent.

While these projections of higher retail prices in 2018 would put positive pressure on wholesale beef, live cattle, feeder cattle and calf prices, such

Table 1. BEEF SUPPLY AND DEMAND, 2016-2019

	million pounds							pounds
	Beginning Stocks	Production	Imports	Total Supply	Exports	Domestic Consumption	Ending Stocks	Per Capita Domestic Consumption
2016	683 10.8%	25,288 3.7%	3,015 -2.4%	28,986 3.2%	2,556 10.0%	25,673 2.8%	757 -5.5%	55.44 2.0%
2017	757 -5.5%	26,220 4.5%	2,941 -7.0%	29,918 3.1%	2,810 3.2%	26,393 3.0%	715 7.0%	56.56 2.2%
2018	715 7.0%	27,398 2.1%	2,735 -1.8%	30,848 1.9%	2,900 2.9%	27,183 1.7%	765 3.3%	57.82 1.0%
2019	765	27,983	2,685	31,433	2,985	27,658	790	58.38

projections are not consistent with the overall supply and demand picture. Such price increases would be consistent with higher domestic consumption and exports than is expected by the USDA or further innovation in value-added cuts.

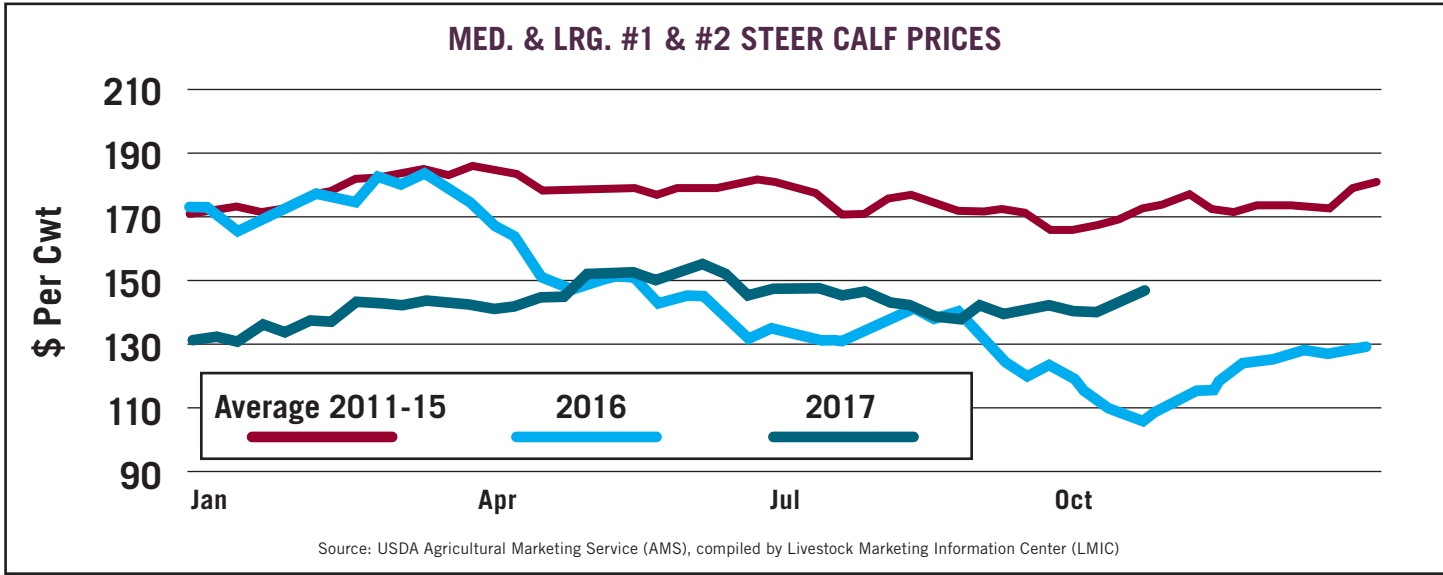
Domestic consumption is expected to increase 2.8 percent from 25.67 billion pounds in 2016 to 26.39 billion pounds in 2017. A slightly larger increase of 3.0 percent is expected into 2018 with domestic consumption increasing to 27.18 billion pounds. This is equivalent to an increase in per capita domestic consumption of 2.2 percent from 56.56 pounds annually to 57.82 pounds. The USDA expects significant downside price risk in nationwide average steer prices, projecting a decline from \$121.80 in 2017 to \$113-\$122 in 2018.

Export Outlook

USDA projections indicate a 10 percent increase in exports from 2.56 billion pounds in 2016 to 2.81 billion pounds in 2017. Exports are projected to increase 3.2 percent to 2.9 billion pounds in 2018. The reopening of beef trade with China was certainly a much-anticipated event in 2017, but it is not likely to be a significant trade partner in the near term due to the relatively stringent regulations China’s government stipulates for export of beef from the U.S. to China. However, exports to three of the U.S.’s primary markets increased during 2017 and show promise for 2018 as well. Specifically, exports to Japan, South Korea and Mexico all increased during the year. A weakening dollar relative to Japanese and South Korean currencies will likely help boost exports to those nations.

Summary

Overall, Georgia beef cattle producers should expect prices in 2018 to be consistent with a typical seasonal pattern, with the possibility of some downside price risk due to weakening feedlot placements and continued, but slower, herd expansion. While prices are expected to be lower in 2018 than in 2017, cow-calf profitability should be in reach for producers willing to adopt appropriate strategies given current forecasts of local prices and barring a significant increase in production costs due to adverse weather. Winter stocker operations are also projected to be profitable for steers placed in late fall 2018. While such opportunities will be more limited in 2018, there are opportunities for profitability in 2018 if sound marketing and production practices are observed.



Low feed costs have driven production increases in the hog sector in recent years. In 2017, pork production increases were driven both by increases in pigs saved per litter and the number of sows farrowing. Slaughter capacity was exceeded late in 2016 and new production facilities have come online in 2017 to handle increased capacity. 2018 will see more of the same. Looking ahead, there is little chance we will see feed prices rise significantly. Thus, any downward pressure on supply must come from demand factors. Exports will likely grow in line with production in 2018, but we may still see some price weakness. Average barrow and gilt prices have improved and are projected to average \$49.01 per hundredweight in 2017 compared with an average of \$46.16 in 2016. U.S. Department of Agriculture projections for 2018 are in the \$43-47 range reflecting some risk of inadequate demand.

Supply Outlook

The number of sows farrowing continued its upward trajectory in 2017 on low feed prices and sky-high belly prices, the latter of which lasted until mid-September. Increases in production efficiency were also a primary driver of increased supplies, with the number of litters per sow and pigs saved per litter increasing as they have the past several years. In late 2016, these increases in breeding inventory and production efficiency led to a situation in

which slaughter was higher than is considered economically efficient at current capacity. When slaughter capacity is exceeded, slaughter facilities must incur additional costs to process additional hogs. This incentivizes investment into additional capacity, which has come online during 2017 and will lead to increased slaughter capacity in 2018. Figure 1 shows capacity plotted against weekly slaughter numbers. In 2017, we have seen increased slaughter nearly every week compared with 2016, and the end-of-year surge in slaughter has generally met or exceeded last year’s numbers. Thus, the increase in capacity was certainly warranted. Increased competition for finished animals has pushed prices higher in 2017 than in 2016.

From 2016 to 2017, U.S. pork production increased from 24.96 billion pounds to 25.6 billion pounds, an increase of 2.6 percent. Imports also increased in 2017, leaving total supply 2.2 percent above 2016 levels at 27.22 billion pounds. Domestic production is expected to increase in 2018 and 2019, with 2018 production 3.1 percent above 2017 levels at 26.38 billion pounds. Imports are expected to fall the next two years, with 2018 imports at 1.03 billion pounds, 7.5 percent lower than in 2017.

Projections for corn and soybean yields for 2017 indicate that we are unlikely to see increases in feed costs anytime soon. Low feed prices have driven increases in production the past few years and will continue to

do so in 2018. Supply-side factors are positive for the hog and pork industry in general, but domestic and export demand are not likely to be strong enough to maintain 2017’s prices.

Domestic Demand Outlook

Domestic demand has been strong and is expected to grow. Domestic retail per capita pork consumption was 64.45 pounds in 2016 and remained unchanged in 2017. The year 2018 will see a larger increase to 65.34 pounds per person. Overall domestic consumption increased 0.8 percent from 20.9 billion pounds in 2016 to 21.05 billion pounds in 2017. In 2018, an increase of 2.2 percent is expected, resulting in overall domestic use of 21.51 billion pounds. However, these increases in domestic consumption will not be enough to keep ending stocks from growing. Hog and pork prices are expected to be slightly lower in 2018 compared with 2017, but in 2019, insufficient increases in demand will likely lead to much lower pork and hog prices.

During 2017, pork belly prices have been a significant bright spot and have buoyed slaughter hog prices at a time when the prices of other cuts have been relatively weak. Retail bacon prices have skyrocketed during much of 2017, while other cuts have posted significant gains (e.g., pork chops) or recovered from previous declines (e.g., ham). Pork demand is affected by the prices of other meats. Lower beef and chicken prices at the wholesale and retail levels present a risk for pork production. Although

Table 1. PORK SUPPLY AND DEMAND, 2016-2019

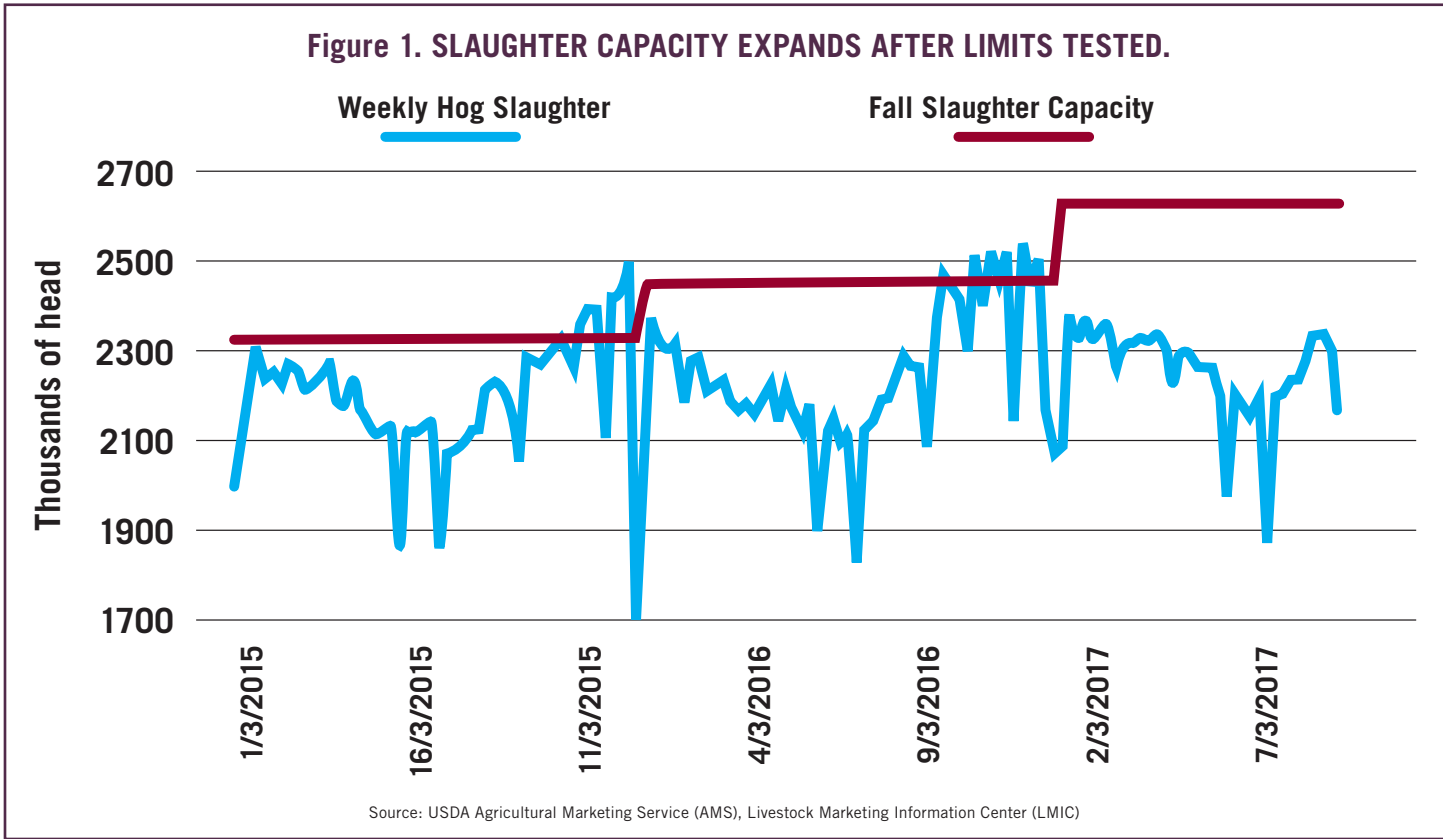
	million pounds							pounds
	Beginning Stocks	Production	Imports	Total Supply	Exports	Domestic Consumption	Ending Stocks	Per Capita Domestic Consumption
2016	590 -14.1%	24,957 2.6%	1,091 2.1%	26,638 2.2%	5,239 6.3%	20,892 0.8%	507 18.3%	64.45 0.0%
2017	507 18.3%	25,596 3.1%	1,114 -7.5%	27,217 2.9%	5,568 4.3%	21,049 2.2%	600 15.8%	64.44 1.4%
2018	600 15.8%	26,380 2.3%	1,030 -8.3%	28,010 2.2%	5,810 3.2%	21,505 1.5%	695 13.7%	65.34 0.7%
2019	695	26,976	945	28,616	5,995	21,831	790	65.83

we expect to see increases in pork consumption, low competing meats prices will likely mean that domestic consumption will not keep pace with production increases. Domestic and international demand will likely remain strong enough to ensure profitability in the hog industry during 2018 with some significant risk of lower profitability in 2019.

International Trade Outlook

Export markets will likely be crucial for pork and hog prices in coming years. While domestic consumption will continue to grow, it will not be enough to absorb increases in production in 2018 and 2019. Pork exports faltered in July of this year due mainly to a sudden drop in exports to China, Japan, Hong Kong and South Korea. However, August and September exports recovered and continued to post

year-over-year gains relative to 2016. Although pork exports will likely grow in coming years, it is unlikely that we will see export growth exceed the pace of domestic production growth. Exports are the key demand factor to watch for the pork industry in 2018. Relatively low prices and a weaker U.S. dollar relative to Asian currencies will help U.S. export competitiveness in 2018.



The broiler industry has faced a couple of significant challenges in 2017. Woody breast, a condition that leads to low-quality breast meat, continues to be a problem and has led to several quarters of very little bird weight growth. However, by the end of 2017, bird weights have resumed their year-over-year increases and we are set to see some significant growth in bird weights in coming years. Avian influenza was also a problem in the U.S., especially a highly pathogenic avian influenza (HPAI) outbreak that led to trade restrictions from several Asian countries on U.S. broilers.

Broiler prices have been buoyed by strong breast and wing prices during much of 2017. Though low feed prices have been a boon to producers, increased broiler production, as well as increases in competing meats production, sent prices on a significant decline in late 2017. Prices will continue to be weak in 2018 and 2019 due to continued increases in production above 2017's record high.

Supply Outlook

We have seen continued increases in the number of broiler eggs set and chicks placed from 2016 to 2017 and will likely see that trend continue into 2018. The number of eggs set and chicks placed exceeded 2016 levels in nearly every week of 2017 through the middle of the 4th quarter. During 2017, the increase in the number of birds was enough to more than offset lower bird weights, leading to record high broiler production.

Low feed costs and relatively higher prices led to another year of record production in 2017. Despite lower bird

weights in 2017, production increased 2.2 percent from 40.26 billion pounds in 2016 to 41.14 billion pounds in 2017. This increased production was partially offset by a reduction in imports of 4.2 percent from 131 million pounds to 125 million pounds in 2017. Total supply in the U.S. for 2017 was 42.04 billion pounds, an increase of 2.0 percent from 2016's total supply of 41.22 billion pounds.

Feed costs are not expected to increase in 2018, implying that we will see yet another record production year. Although bird weights declined until the third quarter of 2017, weights began to rise again later in the year. The combination of lower feed costs, more chicks placed and heavier bird weights sets the industry up for a production increase of 1.8 percent from 41.14 billion pounds to 41.89 billion pounds in 2018. Imports are expected to fall again to 118 million pounds in 2018, leaving total supply at 42.91 billion pounds, an increase of 2.6 percent over 2017. This increase in supply will put downward pressure on prices in 2018, with prices expected to fall from the U.S. Department of Agriculture projected average of 93.8 cents per pound in 2017 to 85-92 cents per pound in 2018. Though these prices are lower than the 2017 average, they are higher than prices in 2016, implying that with lower feed costs we will see yet another production increase into 2019.

The primary production risks in 2018 will continue to be avian influenza and woody breast. In March of 2017 HPAI was found in Tennessee, leading to trade restrictions at the national level by South Korea and more limited restrictions by Japan, Singapore,

Hong Kong and Taiwan. The bans were lifted later in the year. Despite these risks, the industry in general should remain profitable in 2018.

Demand Outlook

Although exports and domestic consumption increased during 2017, poultry in storage is expected to rise from 778 million pounds at the end of 2016 to 898 million pounds by the end of 2017. Exports rose from 6.65 million pounds in 2016 to 6.7 million pounds in 2017. Domestic consumption rose 1.9 percent from 33.8 billion pounds in 2016 to 34.45 billion pounds in 2017. Increased ending stocks in 2017 coupled with another year of record production imply lower prices and a need to increase both exports and domestic consumption in 2018.

For most of 2017, chicken wing prices soared, peaking at \$2.17 per pound in September. Though lower than their 2011-2015 average prices, breast and leg prices were significantly higher through much of 2017 than in 2016. However, record supply began to affect wholesale prices significantly in the third quarter, and broiler prices overall will likely finish the year between the 2011-2015 average and 2016 prices.

Lower prices in 2018 are likely to help export markets and push domestic consumption higher, with exports expected to increase 1.6 percent from 6.7 billion pounds in 2017 to 6.8 billion pounds in 2018. Further boosting export markets are expectations of increased economic growth in the Asia-Pacific region. An important part of this increased economic growth is

BROILER SUPPLY AND DEMAND, 2016-2019

	million pounds							pounds
	Beginning Stocks	Production	Imports	Total Supply	Exports	Domestic Consumption	Ending Stocks	Per Capita Domestic Consumption
2016	832 -6.5%	40,261 2.2%	131 -4.2%	41,224 2.0%	6,645 0.8%	33,801 1.9%	778 15.4%	89.58 1.1%
2017	778 15.4%	41,141 1.8%	125 -5.9%	42,044 2.1%	6,696 1.6%	34,450 2.1%	898 4.0%	90.60 1.3%
2018	898 4.0%	41,892 2.4%	118 0.0%	42,908 2.4%	6,806 1.5%	35,168 2.5%	934 6.0%	91.79 1.7%
2019	934	42,881	118	43,933	6,910	36,033	990	93.34

the expected dramatic expansion of the global middle class, especially in Asia. Additionally, the dollar has begun to weaken relative to many countries' currencies that make up U.S. export markets. If there is any upside to low prices, improved U.S. competitiveness in export markets is it.

Domestic consumption is also expected to increase from 34.45 billion pounds in 2017 to 35.17 billion pounds in 2018, an increase of 2.1 percent. This implies a per capita increase of 1.3 percent from 90.6 pounds per person in the U.S. in 2017 to 91.79 pounds in 2018. However, chicken will have to compete at the retail level with pork and beef, the production of which are expected to increase in 2018. Increased production of competing meats

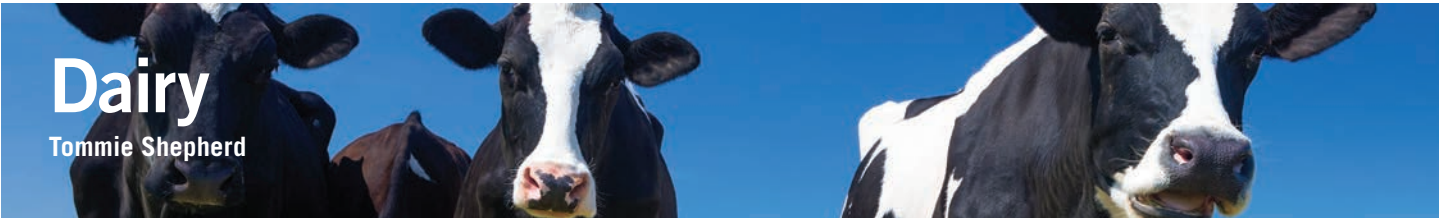
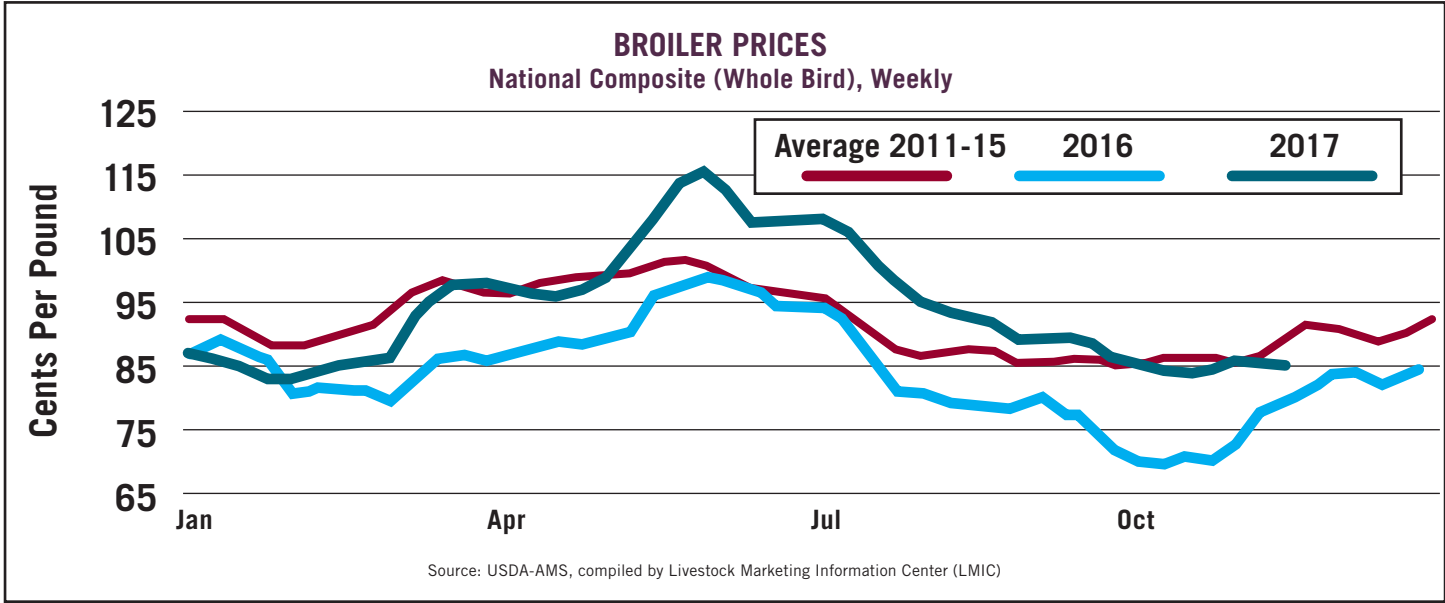
and the lower prices they could generate will put additional downward pressure on prices at the retail shelf. Profitability was quite strong for much of 2017, surpassed only by profits in 2014. As they say, the cure for high prices is high prices, and this is likely to be the story in 2018, unless export or domestic demand surpasses expectations.

Egg Outlook

After a seriously difficult year in 2016, table egg prices rebounded in 2017, increasing from an average of 85.7 cents per dozen in 2016 to an average projected price of 94.7 cents per dozen in 2017. Low feed prices combined with the rebound in price will drive an increase in supply into 2018. While imports are expected to

fall from 121.9 million dozen in 2016 to 37.4 million dozen in 2017 and 40 million dozen in 2018, domestic production is expected to increase from 8.57 billion dozen in 2016 to 8.77 billion dozen in 2017 and 8.91 billion dozen in 2018.

Exports and hatching use will both increase along with domestic consumption, leaving ending stocks essentially flat over the next two years. Total domestic consumption is expected to increase from 7.4 billion dozen in 2016 to 7.47 billion dozen in 2017 and 7.6 billion dozen in 2018. Annual per capita domestic consumption will increase from 274.7 dozen in 2016 to 275.2 dozen in 2017 and 278 dozen in 2018. Since stocks will remain flat, prospects are good for strong table egg prices into 2018.



It has been a number of years since this annual column has reviewed the basic principles that drive dairy markets and, consequently, form the basis for the outlook and projections presented here. The brief overview that follows is intended to provide a basic understanding of how dairy markets function. Milk is produced, processed and distributed for consumption in fluid form regionally due to its perishable nature. In the U.S., per capita fluid milk consumption has been slowly declining for decades. This decline in per capita consumption is partially offset by a growing population, meaning that overall fluid milk consumption is fairly flat. Total milk production, however, continues to grow each year with the balance going toward the growing market for manufactured dairy products that may be stored for longer periods of time or exported. These products have historically been cheese, butter, ice cream and other dairy-based desserts, and dry milk powder. In more recent times, specialized dairy products such as milk protein concentrates, nonfat dry milk and skim milk powder have become important ingredients in many manufactured food products and are produced and traded all over the world.

Global Market Conditions

Besides the U.S., major exporters of manufactured dairy products include the European Union (EU), Australia, New Zealand and Argentina. Fluctuations in production conditions, such as weather, feed

prices and availability, and dairy cow inventories, may impact production, either positively or negatively, in any of these countries, altering global supply conditions. Global demand conditions may be influenced by an abundance or shortage of dairy product stocks, growth in population and disposable income, and changing consumer preferences for dairy products or other foods made with dairy ingredients.

Fluctuating exchange rates also serve to make various exporting countries more or less competitive in world markets at different times. For these reasons, the price outlook for dairy farmers in the southern United States is dependent on a highly competitive global market for dairy products, where even small changes in supply or demand can have a dramatic impact on farm milk prices. The prices paid to dairy farmers for the milk they produce are based on a set of pricing formulas administered by the U.S. Department of Agriculture that are driven by U.S. dairy product prices, which, in turn, are heavily influenced by global dairy prices. For these reasons, any discussion of the outlook for milk production and prices in the southeastern U.S. is necessarily based on a broader view of global supply and demand conditions.

Following a lackluster year for dairy farmers in 2016, characterized by the lowest farm level milk prices since 2009, 2017 saw only modest improvement. Dairy markets will enter 2018 plagued by many of the same conditions that prevailed at the end of 2017. Dairy product stocks

remain relatively high, both in the U.S. and globally. Although milk production in the U.S. had begun to slow in late 2017 due to stagnant commodity prices, current indications are that production will be strong in the EU and New Zealand, setting the stage for competitive global markets and putting additional downward pressure on prices. Consequently, U.S. milk production is projected to grow at a slower than normal pace in 2018, based on moderate growth in cow numbers and little, if any, change in per cow productivity, as producers respond to lower milk prices. While domestic consumption may benefit somewhat from lower dairy product prices, any major price recovery will be largely dependent on exports, which will compete in a very competitive global marketplace.

National Trends and U.S. All Milk Prices

Thanks to a combination of slower than normal production growth, strong domestic consumption and an improved export market, the 2017 U.S. All Milk Price, the average price for milk across all product categories, rose by about 10 percent over 2016 levels, from \$15.93 per hundred pounds of milk in 2016 to about \$17.70 in 2017. Slow growth in milk production during 2017 was, no doubt, a response to the low milk prices of 2016. Nationwide, both dairy cow numbers and productivity per cow grew by slightly less than 1 percent from 2016 to 2017. The resulting overall growth in national milk production was only 1.6

LIVESTOCK

percent, significantly below long-term growth trends.

The milk production trend that prevailed throughout 2017 is expected to continue well into 2018. Dairy cow numbers are projected to grow by only about 0.5 percent in 2018, while per cow productivity is likely to exhibit a slightly stronger growth rate of around 1 percent. This will translate into about 1.8 percent milk production growth in 2018, which is below the industry’s long-term trend. USDA forecasts that the 2018 U.S. All Milk Price will be in a range of \$16.90 to \$17.80, reflecting the uncertainty inherent in forecasting long-range prices that are subject to fluctuations in both supply and demand conditions. The midpoint of this forecast price range, \$17.35 per hundredweight (cwt) of milk, represents the likelihood of a slight decline from 2017 price levels, foreshadowing another lackluster year for farm milk prices.

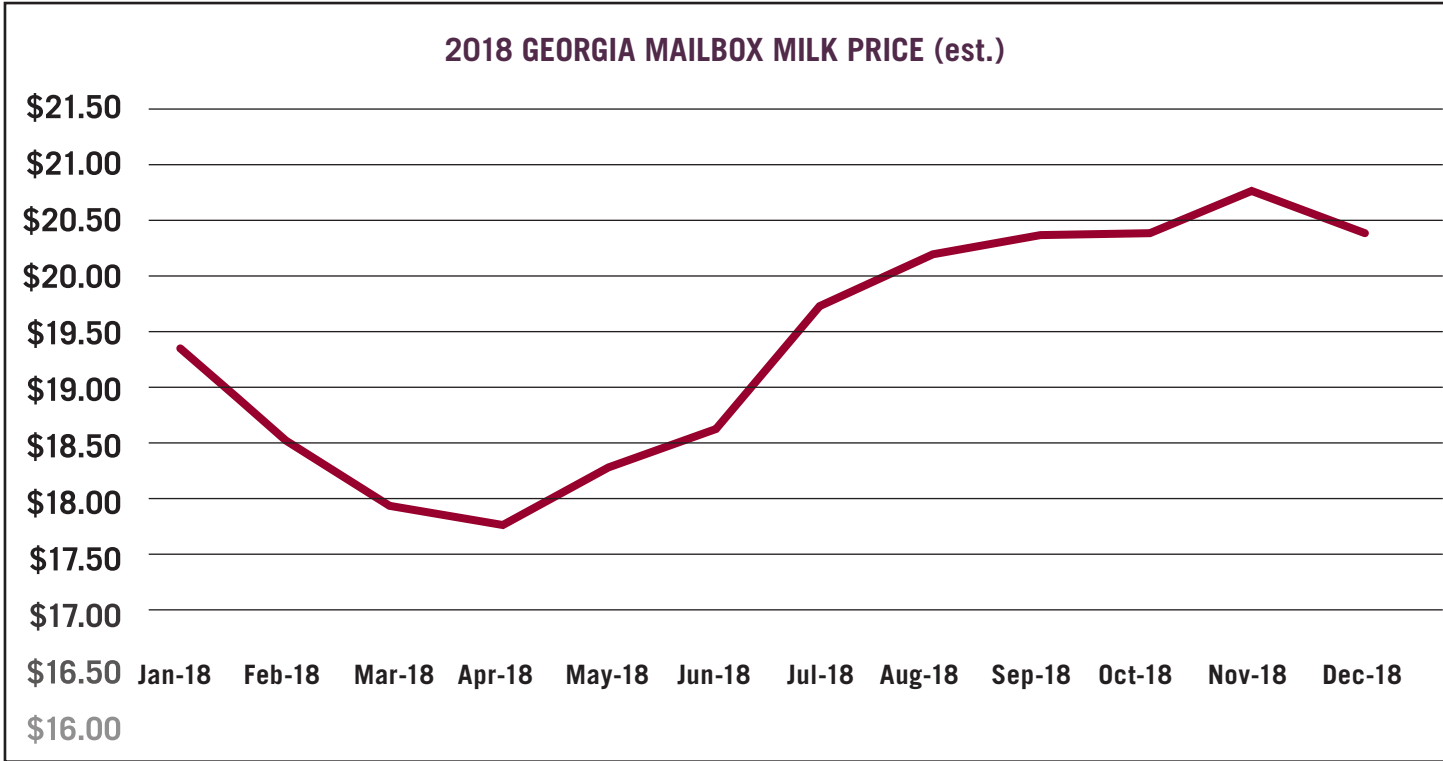
U.S. cheese and butter stocks remained high at the end of 2017 despite strong export sales. Stocks of milk powder and whey were also high as a

result of export opportunities lost to an increasingly competitive EU, placing additional downward pressure on U.S. dairy commodity prices. The EU also faces the dilemma of divesting itself of a substantial stock of aging skim milk powder that accumulated more than a year ago under its price support program. Selling these stocks on the world market will almost certainly place additional downward pressure on world prices. With late 2017 price declines for butter, nonfat dry milk, dry whey and skim milk powder likely to persist well into 2018, the U.S. faces an uphill battle in export markets and an array of declining commodity prices that will ultimately translate into lower domestic farm milk prices.

Dairy Outlook for Georgia

Georgia ranks second in terms of milk production in the Southeast, behind Florida, and 23rd in the nation. It is home to approximately 84,000 dairy cows that collectively produce about 1.8 billion pounds of milk each year. While milk production has declined in

many southern states over the past two decades, production levels in Georgia have remained stable or grown over many years, thanks to the state’s milk processing infrastructure, growing population (and growing demand), and proximity to the lucrative Florida market. Farm level milk prices in Georgia fluctuate in step with U.S. prices through a series of milk pricing formulas administered by USDA. Georgia dairy farmers have historically received a farm level milk price that is, on average, about \$3.00 per cwt higher than the U.S. All Milk Price. This price difference reflects the additional value that is typically placed on milk produced in the milk-deficit regions of the Deep South. The implication is that, based on the USDA’s current 2018 forecasts, Georgia dairy farmers could realistically expect to see average farm level milk prices in the range of \$19.90 to \$20.80 in 2018.



OTHER INDUSTRIES



The Georgia green industry, comprising production, wholesaling, logistics and retailing, along with a host of other operation types, varies in both size and location throughout the state. The largest concentration of firms is around the Atlanta area. This is as expected, given the population base in and around Atlanta, and this area has higher median incomes compared to Georgia as a whole. Increased population and income provide advantages; however, the increased number of firms contributes to intense competition within the area. South Georgia does have less firm density, but demand in these areas is not as concentrated as it is around Atlanta.

According to the Center for Agribusiness and Economic Development (CAED), the green industry had a farm gate value of \$831 million in 2016. The greenhouse sector continued to have the largest farm gate value, followed by container nursery, turfgrass and field nursery sectors. From 2015 to 2016, the latest available numbers, the greenhouse sector grew by 5 percent in farm gate value, while the field nursery, container nursery and turfgrass sectors grew by 12 percent, 7 percent and 1 percent, respectively.

The growth of the Georgia green industry is dependent on a number of factors (e.g., economic growth, weather, external events) that play a critical role in industry growth. With respect to economic growth, state economic growth and housing starts are two areas that can be

looked at to provide an indication of how the industry will trend in 2018. Housing starts throughout the U.S. increased by 6 percent from spring 2016 to spring 2017 (U.S. Census Bureau). Further, there is a projected 2.4 percent increase in U.S. gross domestic product with the Georgia state product expected to increase by around 2.9 percent in 2018 (Kiplinger; Trading Economics). Given that there is anticipated economic growth for 2018, we would expect continued growth in housing starts. Furthermore, Georgia’s real median incomes have trended slightly upward over the last couple of years, which is another good sign for the Georgia green industry.

Weather is also an important factor of green industry product demand. National Weather Service projections indicate a warmer winter with normal temperatures and precipitation for most of Georgia during spring 2018. However, inclement weather at inopportune times (e.g., weekends) could be detrimental to product demand. There is no way to forecast when rain will fall or temperatures will be warm enough for the spring season to start, but early 2018 projections indicate favorable temperatures and precipitation that could be a driving force of demand.

In essence, there are multiple forces, including a growing economy



OTHER INDUSTRIES

led by increased housing starts and normal weather during prime retail time, which lead to optimism for the industry. However, somewhat stagnant or slowly increasing median income and the uncertainty of changing governmental policies are potential negative factors. Using the green industry farm gate values from the CAED in conjunction with other data, it is anticipated that there will be small growth in the industry as a whole during 2018, with firms that can manage/cut costs or find new marketing opportunities experiencing higher growth. The expectation would be for growth similar to that experienced by the Georgia economy as a whole.

Similar to 2018, all firms within the industry will not see growth, as continued competition from within Georgia and from outside exports will make less efficient firms less profitable or drive them out of business altogether. Firms that

can facilitate demand by pricing competitively, using marketing methods that directly appeal to likely consumers, or identifying a niche market (either a unique product or consumer group) will have the largest growth. Pricing competitively should be a primary goal in 2018 as it was in 2017. As more firms enter the market and current firms expand production, there will be increasing pressure for firms to be price competitive. Firms that are able to reduce costs can raise their margins, thereby increasing their profitability.

One of the leading factors that will contribute to costs is labor, especially given potential immigration changes put forth by the new presidential administration. Firms that are proactive and are able to effectively manage labor costs will see improved profitability and increased growth. With respect to marketing, firms that understand their customer base and market and advertise appropriately

will increase demand for their products. Millennials are connected to hand-held devices and need to be reached with online methods, while baby boomers will respond to more traditional types of advertising. Being efficient with marketing and advertising dollars is essential. Finally, firms that can think outside the box and identify a new or unique product or find a consumer group that values something the firm is selling will position themselves for increased profitability and growth. Many consumers continue to key in on production practices as an aid in purchasing decisions. Key practices that will continue to be at the forefront in 2018 include neonicotinoid pesticide use and genetically modified organisms (GMOs). Firms that can effectively navigate these issues while increasing their environmental friendliness will appeal to a broader group of consumers.

OTHER INDUSTRIES



According to the U.S. Travel Association, travel and tourism is a \$947 billion industry in the U.S. and has directly generated more than 8.1 million jobs. The U.S. travel industry ranks as the seventh largest employer and among the top 10 industries in 49 states, including the District of Columbia, when measured by employment. Travel and tourism generates \$147.9 billion in tax revenue for federal, state and local governments, with the restaurant industry accounting for the majority of this economic activity.

In Georgia, travel and tourism generate \$27.5 billion dollars in the economy and \$5.5 billion in taxes, employing over 260,000 people. The U.S. Census of Agriculture clearly shows an increasing trend in agritourism and related recreational services. Agritourism can be generally defined as activities that include visiting a working farm, or any agricultural, timber, horticultural or agribusiness operation, to enjoy the rural setting, be educated or become involved in a nature-based activity. Between the 2007 and 2012 censuses, 10,249 farms grossing \$546 million in income increased to 13,334 farms grossing \$674 million. Farms with gross farm receipts of \$25,000 or more increased from 3,637 farms to 4,518. This strongly suggests that the rural U.S. is a popular tourist destination. This is fortunate because agritourism is an increasingly popular and growing opportunity for agricultural producers.

According to research from the U.S. Travel Association, several trends back statistics showing an increase in agritourism. According to the research, tourists are traveling by car more often,

taking shorter, last-minute trips and seeking to spend quality time with loved ones. All of these factors are beneficial to agritourism destinations, which are generally ideal for speedy, local daytrips where visitors can enjoy new experiences together.

Consumers are making more thoughtful choices about travel and also about food. People are more concerned than ever with learning where and how their food is sourced. At a farm, ranch or vineyard, adults and kids can see the process firsthand, in a hands-on way. They appreciate the fresh air, the wholesome relaxation and, perhaps most importantly, the enduring memories they make while touring the heartland.

Emerging Travel Trends Transformational Travel

Travelers are looking for experiences where they can become informed, enlightened and changed after an experience. This is true of agritourism, as people get to experience activities and settings they may not be familiar with. Agritourism provides them the opportunity to learn about agriculture and experience a working farm. This is great given that, as Georgians, many residents are far removed from their agrarian and rural roots. It fosters greater understanding and awareness because it celebrates our differences and recognizes what makes us all similar.

Sustainable Travel

Sustainable travel is a segment that is gathering popularity and is expected to become a part of the traveling mainstream. Sustainable travel is more involved than just being “green”; it goes

much deeper, encompassing support for the protection of cultural and natural heritage and provides social and economic benefits for local communities and culture.

Generational and Situational Travel

Greatest Generation: This generation is starting to shrink. These consumers like to take day trips and experience new things. They may travel in groups on short daytrips and are still looking for relational activities that provide educational and social opportunities.

Baby Boomers: This segment of the population is recognized as a primary driver in many segments of the U.S. national economy, and this includes the travel industry. People in this generation tend to lead healthy, active lives, and as retirees they will demand access to many different and new activities, facilities and events. This will include activities that provide quality recreation experiences and opportunities to spend time with their families.

Generation X: This generation prefers quality food, both healthful and indulgent, great atmosphere, family-friendly activities, an overall great social experience and a good value for their money. This can add up to a winning formula for agritourism, attracting the Gen X generation and their disposable entertainment and food dollars.

Millennials: This is the second-largest generation and is expected to surpass the baby boomer generation in the near future. Millennials are concerned about health and they are looking to get

back to the basics. This generation is generally more concerned about what they are eating and what it does to their bodies than other cohort groups. In addition, according to research, 90 percent of new mothers are millennials compared with 50 percent a decade ago, and they make purchasing decisions differently than past generations. Millennials gravitate towards companies with “authentic” narratives that resonate with their own worldviews, oftentimes bundled with social causes. They look for four characteristics in a product: authenticity, meaningfulness, uniqueness and innovation.

Single-parent families: Many single-parent families seek recreational and educational opportunities to maximize quality time with their children. This segment of the population has grown from 9 percent in 1960 to 26 percent today.

School-age groups: Farms provide excellent opportunities for preschools, elementary schools, 4-H clubs, Boy Scouts, Girl Scouts and other groups to learn about nature and agricultural processes. This segment measures approximately 73.6 million and is expected to increase to 74.1 million in 2020.

Economic Factors

Fuel prices

As in 2017, cheaper fuel will continue to positively impact agritourism.

Gasoline prices are expected to stay moderate going into 2018, allowing consumers to spend less on fuel and have more disposable income.

Moderate fuel prices should have a positive effect on travel plans. School field trips are important to agritourism operations. On-road diesel is expected to rise slightly in 2018, which should not negatively impact school field trips the way it did in 2014, when on-road diesel cost \$3.83 per gallon.

Tax revenue

According to the Georgia Budget and Policy Institute, the 2018 budget is expected to be 5.3 percent higher than the previous year. However, the 2018 budget reduces K-12 spending to a level that is \$167 million below the funding target. This decrease in funding may increase financial pressure on schools, forcing them to reallocate funds that may negatively impact field trips opportunities.

Unemployment

Georgia’s economy continues to grow and is expected to increase to 3.2 percent in 2018, identical to the 3.2 percent observed in 2017. Anticipated continued rising home prices and continued stock market appreciation indicate that Georgia’s economy will expand in 2017. Georgia’s nominal personal income will grow by 5.8 percent in 2018, which is up from 5.6 percent in 2017. Georgia’s nonfarm employment is forecast to increase by 2.0 percent in 2018, which

is below the 2.5 percent nonfarm employment of 2017.

Leisure Travel

Industry research has found that Americans aren’t afraid to go the distance, and they are planning to take long-weekend trips. A majority of travelers in a recent survey indicated that they are willing to travel three or more hours from home for their long-weekend getaways and overwhelmingly will travel by car.

The anticipated growth in both employment and wages in 2018 will positively impact leisure travel, as long as there is not a major economic shock to the U.S.’s economy. Industry figures show that domestic leisure travel will grow by about 2 percent in 2018.

The average leisure traveler is approximately 48 years of age. Approximately 36 percent of leisure travelers are between 35 and 55 years of age. These travelers generally travel with children. In addition, Georgia is one of the top U.S. travel destinations for international travel. International travelers rank visiting historical venues among their top-five activities when visiting the U.S.

Domestic leisure travelers are still looking for escapes and are interested in exploring new and adventurous activities. As a result, they are incorporating winery visits, horseback riding, local food venues, festivals and more into their quick leisure travels. According to the U.S. Energy Information Administration, gasoline prices are expected be similar to the 2017 national annual average. As a result, prevailing fuel prices will be partially offset by increased fleet fuel efficiency, making automobile travel affordable to most Georgians and allowing them to visit agritourism venues across the state.



Honey bee popularity in 2017 was still on the rise; however, honey production in Georgia was well below average, which seems to be the trend these days. Overall, nectar flows were below average, with estimates ranging from 15 to 20 percent below normal yields.

For the second year in a row, gallberry tanked as far as a reliable honey source. Gallberry, considered to be Georgia’s No. 1 honey crop, is a good honey for packing since it is light in color and doesn’t crystallize as readily. Prices for 2017 hovered around \$2.20 per pound, lower than what it brought in last year. Wildflower nectar flows were above average in the northern states, but not in Georgia. Lower yields for both wildflower and gallberry were due to consecutive days of rainy weather during bloom. Honey prices for spring wildflower remained about the same as gallberry.

Cotton honey from the middle to southern regions of Georgia had average yields, but much of the honey harvested was too “wet.” Moisture content in honey should be in the 17 to 18 percent range so that it won’t spoil, ferment or crystalize. Cotton honey this year had a higher moisture content and had to be dried out before it could be bottled. Prices for cotton honey averaged around \$1.85 per pound.

Yields of tupelo honey were extremely low to nonexistent. As experienced in 2014 and 2016, ill-timed rainy weather was the culprit. Tupelo blooms for about two weeks, which is exactly when the rainy weather set in. The rains kept the bees in the hive as opposed to foraging

in the field. Because of supply and demand, prices for tupelo honey remained very high because it was so difficult to find (\$8 per pound as opposed to \$4 per pound).

The sourwood crop was yet another disappointment for beekeepers, even though predictions were pointing to an above average flow. The blooms were there, but the nectar did not materialize. On average, a strong colony can usually bring in 50 to 60 pounds, but this year, most colonies were struggling to bring in 20 pounds. Price for sourwood in a barrel was \$5 per pound wholesale and \$10 per pound retail. Hopefully, the next year will bring better nectar flows from north to south Georgia, but it’s almost impossible to predict.

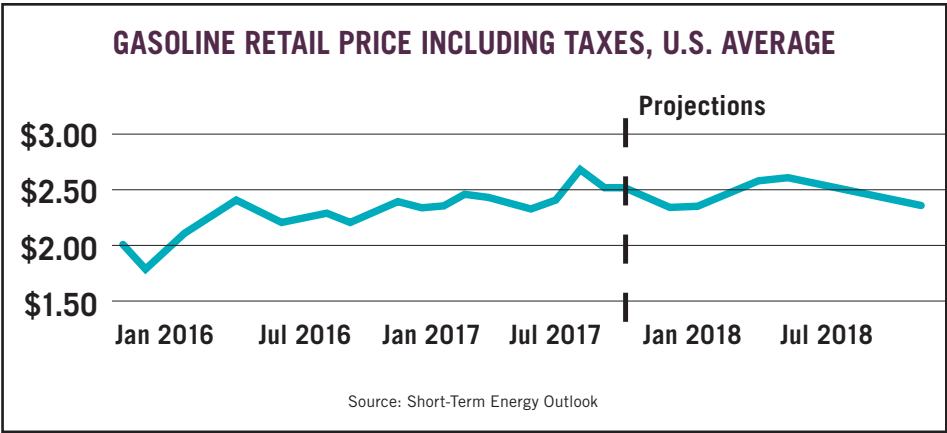
Unlike last year, reports of colony failure are higher than normal, with some counts as high as 70 percent loss. Even though late spring and summer temperatures were above average, and sunny weather allowed bees to forage day after day, the increase in brood production allowed varroa populations to flourish. *Varroa destructor*, a parasitic mite, is by far the most devastating issue that impacts honey bees. If mite populations were not controlled, colonies perished. Even with two new nationally approved miticides for use in hives, amitraz and oxalic acid, mites are still the No. 1 killer of colonies throughout the US.

Higher than normal small hive beetle (SHB) populations were also reported in the southern and northern regions of Georgia, possibly due to warm temperatures and moist soil

conditions. In late summer and early fall, most beekeepers were feeding, administering mite treatments and applying other techniques to reduce pest-population levels.

Public interest in beekeeping is still on the rise, which has added backyard beekeepers along with sideliners and commercial operations to the state. The number and size of beekeeping clubs and associations have also increased. All of this is certainly due, at least in part, to all the media attention in recent years on colony collapse disorder (CCD) and the importance of honey bees and pollination. This increase also results in high demand in the market for queens, packages and nucleus colonies, which have seen steady increases in sales over the last several years. Indications are that the 2018 season will follow the same trend; some suppliers are already reporting anticipated shortages based on pre-orders before the end of 2017. However, prices across the board for packages, bees and nucleus colonies are not anticipated to increase very much.

The demand for pollination services still looks good for the upcoming 2018 season. By mid-January, truckloads of bees from Georgia and the South will be heading west. Contract fees for pollinating almond will be slightly higher than last year. Beekeepers across the state and nation are still diligently trying to keep colonies healthy and strong in order to supply bees necessary for the almond-bearing trees and other pollinator-dependent crops.





The timber situation and overall economic outlook look strong for the U.S. As both domestic and international economies continue to grow, the demand for forest products will likely rise. This rise in demand is spurred by the continued industrialization and increased consumer spending of nations around the world. Domestically, the amount of housing starts continues to rise and is expected to continue on this trend, which has huge implications for lumber demand.

Higher expectations for consumer spending, increased domestic demand for goods and services, and lower unemployment rates signal a positive outlook for the U.S. macroeconomy as we enter 2018. The economic growth of the domestic economy is expected to remain strong, with growth expected to be above 2 percent. Additionally, consumers can expect to see their disposable incomes grow around 2.5 percent for the year, with increasing household wealth as real estate values rise. Business fixed investment will likely increase as sales data show gains in the sector in addition to low interest rates. Congress has passed a tax reform bill that should result in benefits throughout the economy. Wage growth is expected to pick up through 2018 as the economy experiences a tightening of the labor supply, which should lead to higher demand for forest products. Concerning the monetary policy outlook, Federal Reserve Board Chair Janet Yellen's remarks in the third quarter of 2017 may signal a loosening of monetary policy in the near future.

Indicating possible structural changes in the economy that were previously overlooked, the Fed is open to more aggressive policies to achieve higher inflation rates. As such, Yellen believes that the economy is healthy enough for a reduction of the Fed's \$4.5 trillion balance. With the long-term inflation rate below the favorable 2 percent target, the Fed is reviewing its model and is looking for potential policy deficiencies that fail to address inflationary issues. As for the housing market, a strong indicator of the demand for forest products, 2017 experienced fewer starts than previously forecasted, even while traditional factors that normally correspond to higher housing starts were healthy. Going forward, 2018 is expected to see annualized housing starts just shy of 1.3 million, still lower than pre-Great Recession numbers.

Commodity prices

Commodity prices were rattled by extreme weather events in the third quarter of 2017, but they are expected to level in 2018.

The Random Lengths softwood framing lumber composite price increased 9.8 percent in the third quarter to \$436 per thousand board feet. This is 22 percent higher than prices from the same time last year. Prices rose throughout August before dipping to a low of \$403 in early September, partly due to the suspension of the preliminary countervailing duty (CVD) rates on Canadian lumber imports. Severe weather during the hurricane season also suppressed demand for a period, especially in Texas

and Florida. Prices began to rebound in mid-September, especially in southern yellow pine, as mills attempted to replenish inventories. Prices increased rapidly towards the end of the quarter, finishing just below levels reached during the spike last quarter, which was also driven by the uncertainty surrounding the CVD rates on Canadian lumber exports.

Pulp prices (on northern bleached softwood kraft pulp) averaged \$1108 over the third quarter of 2017, a slight increase of 1.4 percent over last quarter, and up 11.1 percent from this time last year. After a dramatic increase in the second quarter, prices were mostly flat in July and August before rising toward the end of the quarter. The modest increase in the third quarter was partially due to disruptions in supply, caused by hurricanes, as well as strong demand from China. Although autumn is typically a strong season for the pulp market, this year has been somewhat unusual after a five-month run of price increases to start the year.

As of the third quarter of 2017, year-over-year average stumpage prices for pine in the South declined slightly by \$0.64/ton. TimberMart-South reported a third-quarter 2017 average southern pine sawtimber price of \$23.66 per ton. Average pine pulpwood stumpage price was reported at \$9.32 per ton, down by 8.4 percent year over year. Over the past 10 years, the current pine sawtimber stumpage price average has declined by 36 percent, highlighting the slow pace of recovery in stumpage prices for southern forestland owners. Local market conditions for stumpage vary.

For up-to-date market prices, please check with local forestry consultants.

Demand outlook

South-wide demand for pine grade remained mostly unchanged from the end of the second quarter, declining 0.06 percent. Pine grade demand for southern yellow pine has followed a modest downward trend since the fourth quarter of 2016. Florida sustained the largest decline in demand, while North Carolina observed the largest increase during the third quarter of 2017. Considerable investment in southern softwood sawmills should lead to rising demand in the upcoming year. Several new softwood lumber mills began production late in the third quarter, including mills owned by Conifex Timber, Two Rivers Lumber and Klausner Lumber. Georgia-Pacific also revealed plans to convert an existing nonoperational plywood facility into a sawmill with an estimated capacity of 230 million board-feet (MMBF) annually. However, investment in sawmill optimization may have a dampening effect on demand, as mills are able to extract more product from the same timber supply. Healthy economic indicators coupled with sawmill investment have pine grade demand rebounding in the fourth quarter of 2017 (Figure 1).

As landowners anxiously await timber prices to return to long-term trends observed prior to 2008, standing timber inventory remains strong. Exploiting the ability to delay harvest has resulted in a large supply of standing timber that will continue to moderate prices even as demand increases. However, extreme weather events, like the hurricanes witnessed in the third quarter, can have significant impacts on short-term supply, driving up prices. Canadian lumber-producing companies continue to invest in the U.S. South, highlighted

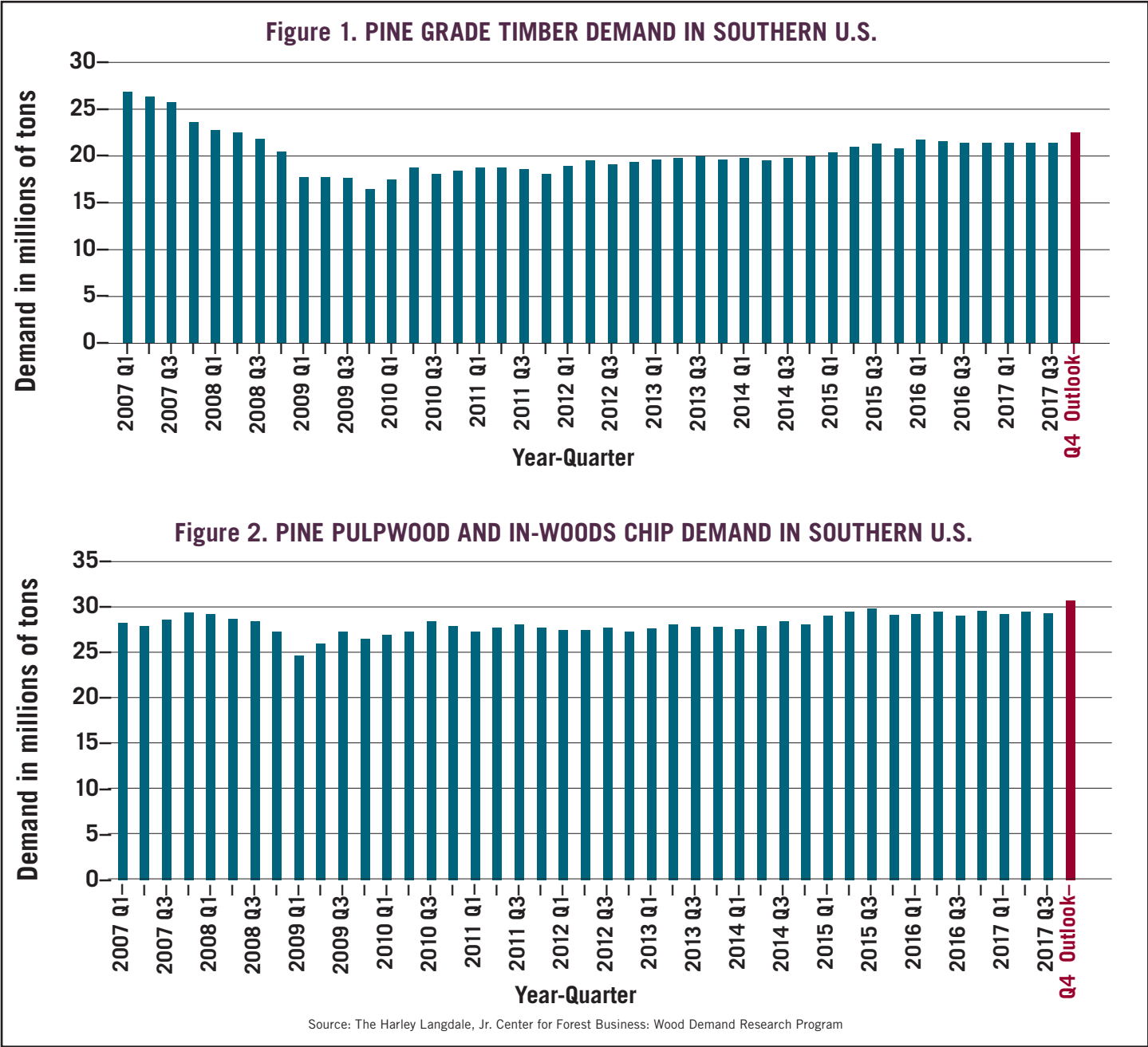
by West Fraser's acquisition of several sawmills scattered throughout the region. Canadian investment is driven in part by strong market fundamentals, a decimated Canadian timber supply and concerns over the Canadian Softwood Lumber Agreement.

Hardwood grade demand (including timber used in lumber and pallet production) declined by 0.02 percent in the third quarter, and decreased 0.51 percent year-over-year. The largest decline in demand was reported in Georgia and North Carolina. The state of Virginia saw the highest increase in demand during the third quarter. Hardwood demand is highly variable based on species, resulting in different end uses and quality. Demand for ash and red oak is projected to increase due to robust export markets and the popularity of hardwood flooring, while the high demand of white oak and poplar is expected to remain steady.

For 2017, pine pulpwood and woods-direct chips (delivered wood chips from in-woods chipping operations) demand increased by 3.7 percent across the South. Models from the Wood Demand Research Program suggest that this upward trend in demand will continue as we enter 2018, with estimates suggesting increases in demand near 4 percent through the third quarter of 2018. Currently, Georgia holds the largest share of this market, followed by Alabama. Through the third quarter of this past year, the South experienced a 6.7 percent increase in pine pulpwood demand from oriented strand board (OSB) and panel mills. Pulpwood demand from chip and pulp/paper mills, which represent the largest user of pine pulpwood in the South, saw a minimal increase of 0.3 percent year-over-year through the third quarter of 2017. Woods-direct chip demand were 1.3 percent higher over the past year, and the demand for this product class is

anticipated to rise in the upcoming year (Figure 2).

For pine pulpwood, consumption across the South continues to be driven higher by steady demand from pulp and paper mills in addition to rising demand from pellet producers. Demand for pulp used in newsprint and writing papers has declined substantially in recent times, as consumers' propensity toward technological devices continue. Fortunately, the decline in this market segment is being offset by increasing production of paperboard and paper products, specifically fluff pulp. As worldwide populations and economies continue to grow, demand for pulp consumer products such as incontinence products, paper towels and napkins is expected to be especially strong. Demand for OSB, another use of pulpwood-sized trees, is also expected to rise as U.S. housing starts continue to rise slowly. Existing and planned bioenergy facilities (including pellet mills) in the South may have a noticeable impact on prices and demand for pulpwood timber in wood baskets throughout the region. Led by the United Kingdom, global demand for U.S. pellets is expected to increase to roughly 26 million tons by the end of the decade, with a significant majority of the current and announced production capacity to occur within the U.S. South. Bioenergy projects will increase demand for wood-based raw materials and compete with the traditional forest industry at the local level. Several current operations are already starting to impact local market dynamics.



Footnotes

¹ Grade timber includes large- and medium-sized logs that are primarily used in lumber production. Some portion of medium-sized logs, known as chip-n-saw, are chipped and further used in pulp production.

² Pulpwood is a common name for small-sized logs that have historically been used primarily in pulp production. More recently, they have also been used for oriented strand board (OSB) and bioenergy production, particularly wood pellets.

³ “Effect of Policies on Pellet Production and Forests in the U.S. South.” U.S. Department of Agriculture, Forest Service. General Technical Report SRS-202. December 2014. Retrieved from: [www.forisk.com/UserFiles/File/WBUS_Free_201209\(1\).pdf](http://www.forisk.com/UserFiles/File/WBUS_Free_201209(1).pdf)

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Jennifer A. Berry

University of Georgia
College of Agricultural and Environmental Sciences
Department of Entomology
Email: jbee@uga.edu; Phone: 706-769-1736

Brady Brewer

University of Georgia
College of Agricultural and Environmental Sciences
Department of Agricultural and Applied Economics
Email: bebrewer@uga.edu; Phone: 706-542-2632

Christopher “Kit” Burgin, master’s degree candidate

University of Georgia
Warnell School of Forestry and Natural Resources
Harley Langdale Jr. Center for Forest Business

Ben Campbell

University of Georgia
College of Agricultural and Environmental Sciences
Department of Agricultural and Applied Economics
Email: bencamp@uga.edu; Phone: 706-542-0852

Esendugue Greg Fonsah

University of Georgia
College of Agricultural and Environmental Sciences
Department of Agricultural and Applied Economics and UGA Cooperative Extension
Email: gfonasah@uga.edu; Phone: 229-386-3512

Christopher “Perry” Humphreys

University of Georgia
Warnell School of Forestry and Natural Resources
Harley Langdale Jr. Center for Forest Business

Jeffrey M. Humphreys

University of Georgia
Terry College of Business
Director, Simon S. Selig Jr. Center for Economic Growth
Email: jhumphre@uga.edu; Phone: 706-425-2962

Robert L. Izlar

University of Georgia
Warnell School of Forestry and Natural Resources
Harley Langdale Jr. Center for Forest Business
Email: bizlar@uga.edu; Phone: 706-542-6819

John Miller

University of Georgia
Warnell School of Forestry and Natural Resources
Harley Langdale Jr. Center for Forest Business

Adam N. Rabinowitz

University of Georgia
College of Agricultural and Environmental Sciences
Department of Agricultural and Applied Economics
Email: adam.rabinowitz@uga.edu; Phone: 229-386-3512

Levi Russell

University of Georgia
College of Agricultural and Environmental Sciences
Department of Agricultural and Applied Economics
Email: lrussell@uga.edu; Phone: 706-542-0755

Tommie Shepherd

University of Georgia
College of Agricultural and Environmental Sciences
Center for Agribusiness and Economic Development
Email: tlshp@uga.edu; Phone: 706-542-9081

W. Don Shurley

University of Georgia
College of Agricultural and Environmental Sciences
Department of Agricultural and Applied Economics and UGA Cooperative Extension
Email: donshur@uga.edu; Phone: 229-386-3512

Amanda R. Smith

University of Georgia
College of Agricultural and Environmental Sciences
Department of Agricultural and Applied Economics and UGA Cooperative Extension
Email: a.smith@uga.edu; Phone: 229-386-3512

Kent L. Wolfe

University of Georgia
College of Agricultural and Environmental Sciences
Center for Agribusiness and Economic Development
Email: kwolfe@uga.edu; Phone: 706-542-0752

LETTER FROM THE DEAN

Welcome to the 2018 Georgia Ag Forecast. Forecasting anything is an enterprise fraught with some degree of peril. Forecasting the year in agriculture is all the more challenging. Last year I wrote about the uncertain times in which we live. Today we continue to face questions about the nature of the future we will all inherit. Anyone involved in agriculture needs to be optimistic. What other profession or vocation requires its practitioners to put a significant portion of their total assets at risk on an annual basis?



Our nation has certainly experienced risky times. On Sept. 3, 1929, the stock market peaked, with the New York Times index of industrial stocks closing at 452. To give you a sense of the magnitude of change that has occurred since then, the Dow Jones index closed at a record high in December 2017, above 24,800.

Less than two months after the peak, on Oct. 29, 1929, known as “Black Tuesday,” the New York Times index of industrial stocks dropped nearly 40 points – the worst drop in Wall Street history at the time. A 40-point drop today seems rather pedestrian. By Nov. 13, 1929, the stock market had reached a low for the year, with the index falling to 224. In little more than eight weeks, the stock market had lost 50 percent of its value.

Risk is inherent in agriculture. Uncertainties abound: weather, access to labor, disease, geopolitical trade policies, domestic market conditions and unforeseen events. My high school basketball coach continually emphasized that we should always be prepared to address the things we could control. In ag, as in basketball, we can only control part of the outcome.

Louis Pasteur commented over 150 years ago: “Chance favors the prepared mind.” I hope the information you learn today will help you reduce the impact of chance and assist in making the best business and production decisions for the coming year. We appreciate your support, praise where it is merited, and criticism when we fail to do our best.

Sincerely,

A handwritten signature in black ink that reads "Sam L. Pardue".

Sam L. Pardue
Dean and Director
University of Georgia College of Agricultural and Environmental Sciences