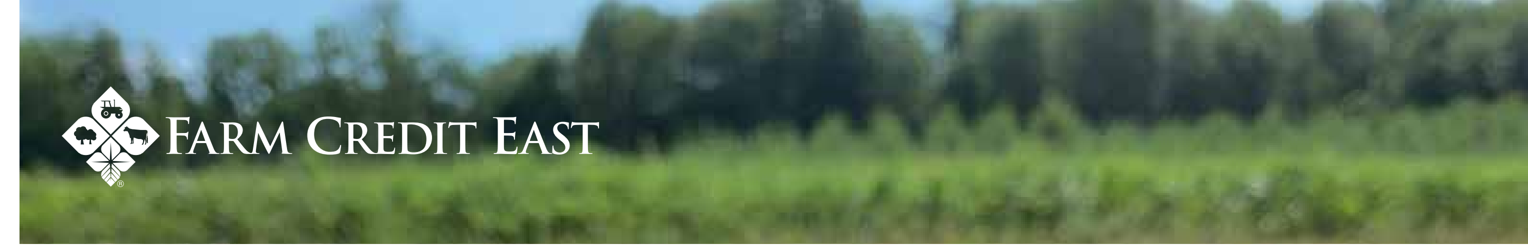
2020 NORTHEAST AGRICULTURE

INSIGHTS & PERSPECTIVES

Economic Analysis and Papers on Agriculture, Commercial Fishing and the Forest Products Industry

Farm Credit East



Dear Farm Credit East Customer:

As we begin a new decade, it's a good time to step back and look at your operation to position it for success in the coming year and beyond.

While recent years have brought a number of challenges—difficult weather, volatile markets, rising costs, and a tight labor market among them, our customer-owners have shown the fortitude and innovation to overcome these and other challenges, and to think strategically about their businesses to lead them to success.

Regardless of what type of business you may be in; whether it's crops, livestock, fishing, forest products, or supporting industries, the one constant today seems to be change. While change can be difficult, it also usually presents opportunity: New possibilities for quality and efficiency; new markets to pursue; and new growth opportunities for you and your enterprise.

As Farm Credit East, we're embracing the changes that have come our way, including staff changes, new technologies and a dynamic marketplace. Throughout these changes, however, one overarching principle remains constant: Our commitment to Northeast agriculture, forest products and commercial fishing. As a customer-owned cooperative, your success is our success, and our goal is to provide you both the services, as well as the knowledge and expertise you need to make smart and informed business decisions.

In this edition of **Insights and Perspectives**, I share some of my thoughts on leadership and successful teambuilding. We are also pleased to include:

- *The Northeast Farm Economy*, Chris Laughton, Farm Credit East
- *Crop Insurance: A Critical Tool for Farm Risk Management*, Jeremy Forrett, Crop Growers
- *2020 Dairy Outlook*, Catherine DeRonde, Agri-Mark
- *Grain & Oilseed Outlook*, Seth Meyer, University of Missouri
- *Northeast Fishing Industry Shows Long-Term Economic Resilience*, John Sackton, SeafoodNews
- *Green Industry Outlook*, Charlie Hall, Texas A&M University
- *The Forest Products Industry: A Key Part of the Northeast Economy*, Eric Kingsley, Innovative Natural Resource Solutions
- *A New Age in Grocery Retailing for Produce Suppliers*, Jim Prevor, Phoenix Media Network / Produce Business Magazine

In addition to this outlook report, our Knowledge Exchange program provides industry information throughout the year, including our monthly Knowledge Exchange Partner e-newsletter, our webinar series, market outlooks and other reports. This information is intended to provide our customers with insights relevant to your business.

We hope that this report will provide some thought-provoking **Insights and Perspectives** you can use in your business today and over the coming year.

Sincerely,

Michael J. Reynolds

Mike Reynolds
Chief Executive Officer
Farm Credit East

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LEADERSHIP FOR 2020 AND BEYOND

Leadership. It's something that is discussed and written about a great deal in the business press and academic literature. Many business owners have multiple books on their shelf on the topic. But understanding and putting into practice what it means to be a real leader can be a challenge. As we enter 2020, it's a good time for reflection on what leadership really means for today's top agricultural, commercial fishing and forest product producers.

MIKE REYNOLDS
CHIEF EXECUTIVE OFFICER
FARM CREDIT EAST

Many Northeast producers, whether they started the enterprise themselves, or grew up in a family operation, have a real passion for their livelihood and what they produce—be it crops, livestock, fish, or forest products. In many cases they would say that the business is "part of who they are," and that passion is exhibited in what they do every day. But as businesses grow and mature, and scale up, we are often called upon less for technical expertise, and more often as a leader of a team or the entire organization.

As a business grows, the owners or principals must transition from workers to managers to leaders. Many agricultural business owners are able to make the transition from worker to manager, but some struggle with the transition from manager to being a true leader. Management is all about the task at hand—doing things and doing them right. It's essential for any business to have good managers. But increasingly, in today's world, it's not enough. That's where leadership comes in.

"When employees know, understand, and are incentivized towards the goals of the organization, remarkable things can happen. But it takes work."

Leadership has been described as the "art of aligning people's efforts together to achieve a set of shared goals." It's less about the task at hand, and more about the overall goals of the firm. If management focuses on "doing things right," then leadership can be said to focus on "doing the right things." It means stepping back to get a broader perspective and making sure your organization is really on the right track. It's one of the reasons Farm Credit East produces outlook publications like this one, to stimulate that kind of strategic thinking for the year ahead. Sometimes it means pausing from the task at hand and really questioning why and how your organization does things. And ultimately it means achieving goals and objectives with and through the efforts of others.

That premise is probably not controversial, but how does this translate to reality when business owners are handling the day-to-day challenges that every agricultural business faces? The key, and the hardest part of leadership, is going from theory to action.

It's a good practice periodically to take some time to think about your organization's core products and processes. Are your staff's goals aligned with yours? Obviously, the concerns and goals of an entry-level worker are going to be different than those of a business owner. But ideally, everyone in an organization should know and understand the business's overall goals and objectives and be working in the same direction.

Think about what incentivizes your employees. Are their incentives in alignment with your goals? That is to say, does the achievement of objectives which benefit them, also benefit the firm? If you use bonuses or incentives, do they encourage action that brings you closer to your goals?

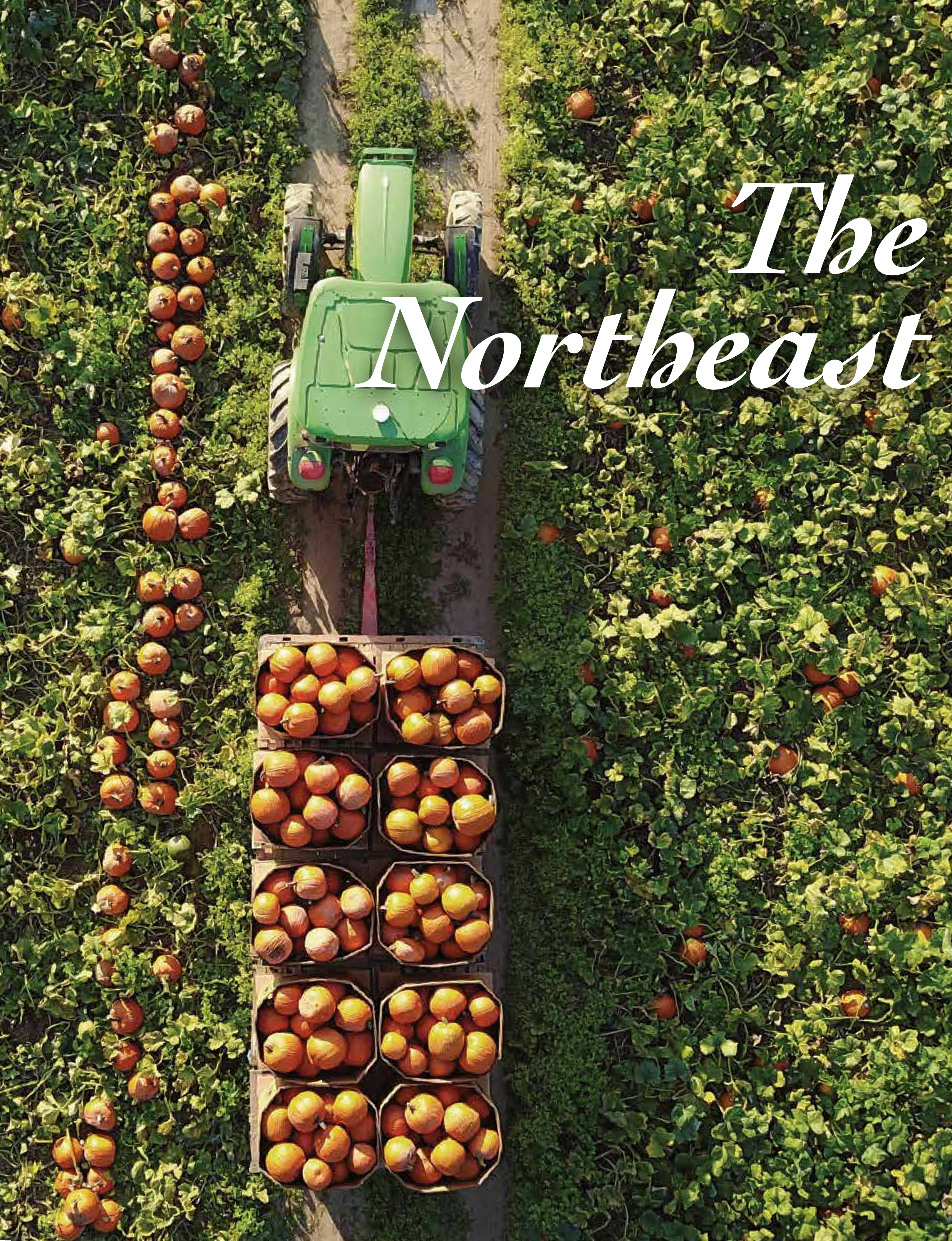
When employees know, understand, and are incentivized towards the goals of the organization, remarkable things can happen. But it takes work. Both the owners and employees need to understand how important everyone on the team is, from the newest entry-level worker, to the owner who has been there since day one.

Giving everyone on your staff a sense of belonging and purpose is key to achieving exceptional results. For companies that treat people like replaceable "cogs in the wheel," it can become a self-fulfilling prophesy, resulting in low engagement and high turnover. Learning and understanding what is important to your staff and what their concerns are tells them that they are valued members of the organization and can help take your team to the next level. As a leader, your objective of organizational success becomes achievable when your staff feels that they have the ability to achieve their personal goals.

In the "real world," this isn't easy. Differences in backgrounds, cultures and personalities raise many challenges. But striving to build a high-performing organization is worth the effort.

As one transitions from "manager" to "leader," one of the most important skills to have is the ability to convey your organization's core objectives to staff, the ability to step back, listen to, and understand their concerns and objectives, and to bring everyone together to really get the "right things" done, the "right way."

Some of this may require leaving the comfort zone of a typical farmer—and may seem foreign to a producer used to a task-oriented workday. But making that personal evolution from "doing" to "leading," is something that can help enable your business achieve exceptional results. ♦



The Northeast FARM ECONOMY

CHRIS LAUGHTON

DIRECTOR OF KNOWLEDGE EXCHANGE FARM CREDIT EAST

The National Economy

The U.S. general economy remains relatively solid, particularly compared to other developed nations. However, estimates indicate that the economy has slowed somewhat in the second half of 2019, and going into 2020. Estimates indicate that U.S. GDP growth decelerated somewhat from the 3.1% and 2.0% seen in the first and second quarters of 2019, to 2.1% and 1.9% respectively, for the third and fourth quarters. Forecasts suggest that GDP growth will average around 2.0% in 2020.[1]

Consumer spending is likely to soften going forward, but will continue to support the economy, as consumer confidence remains high. Job growth has slowed as well, as the nation nears full employment, but the labor market will remain extremely tight going into next year, given that the headline unemployment rate currently stands at a 50-year low (3.5%). The labor market has become so tight in fact, that it, in and of itself, may be hindering economic growth as businesses across all sectors struggle to find help.

While U.S. consumers remain confident, business sentiment shows signs of weakening amidst market volatility, tariffs and trade uncertainty, a strong dollar, and a global manufacturing slowdown. Overall, economists forecast slower, but still positive economic growth for 2020, and rate the risk of recession in the coming year as fairly low.

Trade

The ongoing trade and tariff disputes with major trading partners around the globe remain cause for concern entering 2020, although some progress has been made recently. While some U.S. manufacturers are benefiting from a more protected domestic market, others are facing both higher prices for imported raw materials and reduced access to international markets due to foreign countries' retaliatory tariffs on U.S. exports.

The U.S.-Mexico-Canada Agreement (USMCA), was recently ratified by the U.S. Congress, and now awaits ratification by the Canadian legislature (Mexico ratified the agreement in June of last year). While some Canadian lawmakers have raised concerns about the agreement, its ratification seems likely. The USMCA is generally considered to be a favorable agreement for U.S. agriculture.

On September 25, the U.S. and Japan agreed to a significant trade deal, after resolving some last-minute concerns from Japan regarding tariffs on Japanese-made cars and auto parts. U.S. exporters, including agriculture, have been concerned about trade with Pacific-rim nations since the U.S. pulled out of the Trans-Pacific Partnership, or TPP. Japan, the world's third-largest economy, represents a significant market for American farm products, averaging $11 billion in purchases annually over the last 20 years. This is despite an average 17.3% tariff on U.S. ag products, which would be

[1]The Conference Board

significantly reduced in the new agreement. Under the agreement, Japan will eliminate or reduce tariffs on a long list of U.S. agricultural products, including a number of dairy products

Trade with China remains the most prominent of our numerous trade disputes around the globe. On January 15, 2020, the U.S. and China agreed to a partial truce in their ongoing trade war, signing what is being referred to as the "Phase 1" China trade deal. In the deal, the U.S. agreed to roll back some of the tariffs that have been imposed on Chinese imports, as well as forego the imposition of tariffs on an additional $160 billion in Chinese imports, that had been scheduled for December. Existing tariffs on $112 billion worth of Chinese goods were decreased from 15% to 7.5%. Despite this thaw in the trade dispute, 25% tariffs remain on a number of product categories coming from China, many of which are components that American manufacturers use to produce finished products.

For its part, China pledged to increase its purchases of U.S. goods and services over the next two years by $200 billion, an increase of more than 50%. This would potentially include an average of about $40 billion in agricultural purchases over the next two years, $52 billion in energy products, and $38 billion in U.S. services. Some analysts have expressed skepticism that China can absorb, and that the U.S. can supply, such a dramatic increase in U.S. exports in such a short period. In short, while the "Phase 1" agreement leaves major areas of dispute between the two nations unresolved, it does mark significant progress and perhaps a turning point in the trade war with China.

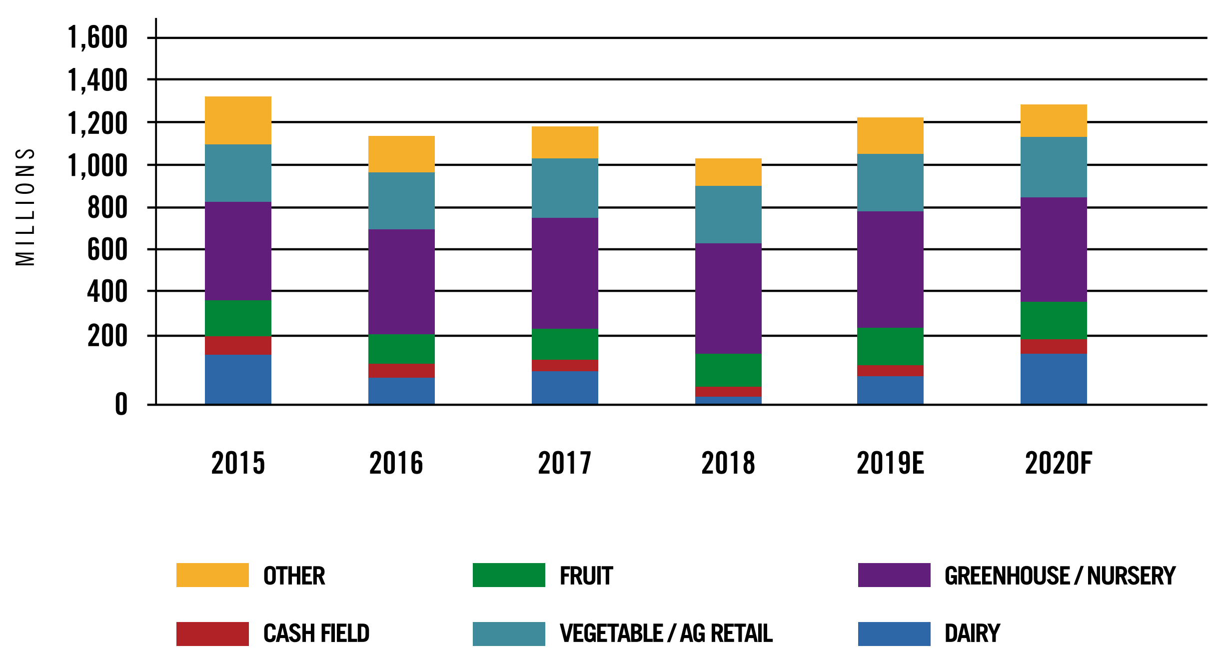
Northeast Farm Economy

DAIRY

- Milk price forecasts indicate higher prices in 2020. Boston Blend pricing last peaked at $19.84/cwt. in December 2019. It is forecast to fall early in the year before beginning to climb, eventually reaching a high of $19.99 next October.The USDA all-milk price forecast for 2020 is $18.85/cwt. If realized, this would be the highest all-milk price since 2014's average price of $23.77.[2]
- U.S. Milk production increases in 2019 were fairly modest, helping bring production in closer alignment with demand and supporting higher prices. Production gains per-cow slightly more than compensated for a reduction in the national herd size.
- On a state-by-state basis, in 2019, there were gains in production in California (0.7%), Idaho (3.1%), Michigan (1.7%), and New York (2.0%) while other states showed decreases including Indiana (-2.7%), Pennsylvania (-1.3%), and Wisconsin (-1.6%).[3]
- National cow numbers decreased 0.3% year-over-year (-27,000 head). New York had an increase of 3,000 head from last year, at 626,000.[4]
- Total U.S. dairy exports for 2019 through November were valued at $5.49 billion, a 7% year-over-year increase and the highest figure in five years, largely driven by higher world prices. Overall product volume exported was still down by 9%, year-over-year, largely due to a significant decrease in exports to China.
- Industry sentiment is modestly improving as milk prices trend higher. These higher prices are bringing more producers back into profitable territory, but some are still dealing with deferred maintenance, payables, and erosion of cash reserves as a result of several years of depressed prices.

NET FARM INCOME PROJECTION

FARM CREDIT EAST STATES



States Included: CT, ME, MA, NH, NJ, NY, RI
Source: Farm Credit East Knowledge Exchange estimates. Does not include estimates of forest products or commercial fishing income in the region.

[2]USDA WASDE.

TIMBER AND FOREST PRODUCTS

- LUMBER
  - » Spruce/Fir lumber prices experienced significant volatility since the fall of 2018 when they peaked at record levels. A significant price correction took place in 2019, bringing prices below breakeven for many mills. Subsequent capacity reductions have buoyed prices back up to profitability for most mills.
  - » Eastern White Pine markets have remained solid with less volatility than Spruce/Fir. Prices fell by about 10% in 2019, but are still providing sawmills with good margins.
  - » Hardwood markets continue to struggle, partly impacted by the trade wars with China, and partly due to softening demand, especially for Red Oak and to a lesser extent, Maple. Many hardwood mills will struggle with profitability in 2020.
  - » Housing starts seem steady at the 1.2 million level with little potential for increase. This will cap demand for framing lumber unless things pick up beyond current levels.
- PULP AND PAPER
  - » Pulp prices have softened from their rally over the past two years, but are still solid based on historic levels. Continued expansion in pulp and paper capacity in Maine has buoyed pulp prices and elevated demand for harvested wood. The overall outlook remains positive for the Northeast which continues to convert capacity to tissue and packaging. Improving markets for containerboard and tissue, along with solid pulp markets have supported capital projects at various Northeast pulp and paper mills.
- LOGGING
  - » Many landowners are at or below their harvest expectations, as logging capacity is now short in much of the Northeast. Many logging operations are reluctant to invest in additional capacity until they feel more certain that current harvest conditions will be sustained. Additionally, the availability of skilled labor is restraining expansion as well.

CASH FIELD CROPS

- A wet start to the 2019 growing season reduced crop yields nationally, as millions of acres were left unplanted, and others were planted late or were in fair to poor condition. However, in the Northeast, many areas saw significant improvement over the summer.
- The weather had a negative impact on the nation's crops, driving corn yields down by 8 bu/ac to 168.4.
- Corn planted area came in at 89.9 million acres, a 1% increase over 2018. With the below-trend yield, 2019 production is estimated at 13,661 million bushels, 5% below last year.
- As a result of weak prices, soybean planted acreage was sharply lower in 2019, coming in at 76.5 million acres, 14% below 2018. Yields were below trend, at 46.9 bu/ac, 7% below last year.[5]
- In New York, harvests generally came in later than normal, however, some New York growers report that corn silage yields were excellent. Other areas struggled to complete harvest with wet late fall weather.
- The U.S. Energy Information Administration projects ethanol production will fall by 2% in 2020. The U.S. ethanol industry is facing supply gluts and negative returns, leading a number of plants to close or reduce production.
- 2019 corn exports were 8% below 2018 due to trade disputes and ample world supplies.
- In addition to trade disputes, the impact of African Swine Fever in China has reduced potential export demand for feed grains and oilseeds.
- Still, robust domestic demand and weather-impacted production have meant that prices have held up relatively well.
- USDA forecasts corn prices for the 2019/20 market year, at $3.85 (2018/19: $3.61), and soybeans at $9.00 (2018/19: $8.48).

[3]USDA / NASS Milk Production Report. 2019 through November. [4]USDA / NASS Milk Production Report. [5]USDA WASDE.

LIVESTOCK

- 2019 average prices for Choice Steers are estimated at $115.50/cwt., slightly lower than 2018. 2020 prices are forecast slightly higher at $117/cwt.[6] However, many Northeast beef producers serve specialty markets and receive higher prices than national estimates.
- The cattle market outlook suggests that packer margins are growing due to constrained processing capacity. Cattle feeders saw positive margins earlier in the year, but are facing volatility and negative margins going forward. Progress on trade with Japan may help prices in 2020.[7]
- The egg market is very challenging with low prices.

FRUIT

- **APPLES**
  - » The fall harvest is complete and estimates are for a large and high quality Northwest crop, which typically drives the market. The estimate for the 2019 Washington apple crop is 137.3 million boxes, an 18% increase over 2018's relatively weak harvest. The national crop is estimated at around average.
  - » Trade disputes have had a negative effect on exports, and some product which might have otherwise been exported has been redirected to the U.S. domestic market. Exports to Mexico, our largest customer, were down 22%, in 2019.[8]
  - » Producers with modern, in-demand varieties should see positive profits, while those with more dated varieties may struggle with soft pricing.
  - » Growers reported that the New York harvest was somewhat variable due to adverse weather events in some areas including late frosts last spring. Hudson Valley growers reported a good harvest. Fresh market apples are garnering better pricing than processing varieties, although reports across the region vary regarding pricing and movement.
- **JUICE GRAPES**
  - » Challenging weather conditions led to variable results for juice grape growers in the region. For the Niagara variety, some growers reported normal crops while others have experienced losses and filed crop insurance claims. The Concord harvest went very well, and most fields reported good sugar content and tonnage. Projected pricing has increased by $5-10 per ton over 2018.
- **WINE**
  - » Growers reported a good year across most of the Northeast for wine grapes in terms of yield and quality. The "craft beverage" industry has been rapidly expanding in terms of both consumer interest and number of producers. This has led to tremendous growth of the industry, but some dilution of visitor counts among a greater number of options than were there in the past. However, most wineries report that overall retail spending is keeping pace or is slightly greater than last year.
  - » Nationally, wine sales increased nearly 3% over the last year. Per capita alcohol consumption has been flat for the past 7 years, but as millennials and "gen Z" enter the market there is some new excitement about wine and the potential for future growth.
- **SMALL FRUITS**
  - » New Jersey highbush blueberry growers reported steady prices for 2019, but some quality challenges due to excessive moisture. Meanwhile, in Maine, prices for lowbush blueberries continue to be low. Some growers reported a smaller-than-normal strawberry crop this season.
- **CRANBERRIES**
  - » National production for 2019 came in at 9,040,000 barrels, 3% greater than the 5-year average. Growers are somewhat encouraged that markets for sweetened-dried-cranberries look tight. Pricing has improved, but remains low by recent historical standards.

AQUATIC/FISHING

- **LOBSTER**
  - » While statistics for the 2019 season are not yet available, 2018 turned out to be a good year for the Maine lobster industry. The value of the catch was the second highest on record at $485.4 million. 2019 looks as though it will continue this trend. Despite a continued strong catch, there are issues that concern the industry: Trade issues with China and Europe continue, and this has shifted sales from the U.S. to Canada. Reduced herring catch levels will impact bait supply, and there is a great deal of concern related to the protection of the endangered Right Whale, which could result in closures of fishing areas, or required conversion of vertical lines to some more whale-friendly format yet to be developed. Finally, the lobster population continues to move northward as the waters in the gulf of Maine get warmer.
- **SCALLOPS**
  - » Scallop prices have held up well and stocks look good. Larger scallops are still commanding premium prices. Permit values remain strong.
- **GROUNDFISH**

Although the stocks of many protected species of groundfish are rebuilt, regulations and quotas remain limiting for the industry.

  - » Permit trading remains limited as regulations continued to ratchet down quotas and days-at-sea.
  - » Prices have held steady, and the catch has been good on the species vessel owners are allowed to land.

VEGETABLES AND POTATOES

- Weather conditions across the Northeast were relatively favorable for vegetable growers in 2019, particularly compared to 2018's excessive rainfall.
- For the fresh market, yields have generally been good, but pricing has been rather volatile.
- Those selling direct-to-consumer have done well this season, with good demand for product, and an increasing volume of younger consumers turning out at farm stands and markets.
- Competition seems to have increased, particularly for lettuce and other leafy greens. Product recalls, while not directly implicating Northeast product, have affected markets for some greens, particularly romaine lettuce.
- The availability and cost of seasonal farm labor continues to be a major issue for many vegetable growers. Unemployment is low, and several Northeast states have increased minimum wages, leading to higher costs. New York has passed mandatory overtime after 60 hours per week for farm workers, and to allow union organizing taking effect in 2020. Growers are nervous and uncertain about what next year will bring.
- **POTATOES**
  - » 2019 yields have been average to above average, with growers being pleasantly surprised at overall yields despite a dry August. Quality appears to be excellent as there was little disease pressure throughout the growing season. The french fry processing crop appears to have better specific gravity than the previous year, which should translate into improved price per cwt on the crop. A relatively warm fall also ensured excellent color quality on both the french fry and chipstock crop. The seed and tablestock crops also reported excellent yields and quality.
  - » Market conditions continue to be favorable. A poor growing season for Idaho and other upper Midwest states, as well as Western Canada has left the market in short supply. Processing contract volumes generally increased for the 2019 crop. Some of this is driven by increased export demand, which remains strong and is at levels not seen since 2012. Any open processing supplies will likely be purchased by processors in the area at contract prices or above. Tablestock markets are currently above previous year levels in most areas. Seed markets also continue to see strong demand and prices are expected to remain at or above the previous year.

GREENHOUSE AND NURSERY

- The green industry overall posted a solid 2019 season, with good spring sales that carried over into summer.
- Reports are that autumn sales were good, but not outstanding, due to a bit of a slow start.
- Wholesale greenhouse operations are seeing year on year revenue growth and profitability should be solid across the industry for 2019.
- Wholesale nurseries are having another strong year in terms of revenue growth and profitability.
- Sod inventory is low and strong demand continues which has supported pricing.
- Garden center retailers continue to post mixed results due to tough competition from chain stores, and the aging of their primary customer demographic.
- As with other agricultural sectors, labor supply and cost continues to be a major issue.
- Interest in new technologies in Controlled Environment Agriculture (CEA), primarily for vegetable production, such as roof top structures, vertical greenhouses, etc. continues to develop, particularly in metropolitan areas which has attracted some venture capital type funding. However, questions remain about the profit potential of many of the more high-tech operations. ♦

[6]USDA WASDE. [7]Northwest Farm Credit Services. [8]Northwest Farm Credit Services.

CROP INSURANCE

An Important Risk Management Tool

JEREMY FORRETT
VICE PRESIDENT
CROP GROWERS, LLP

Crop insurance played an important role in 2019 for many Northeast spring crop producers. Wet and cool spring conditions prevented many producers from completing their planting intentions. The USDA and the Risk Management Agency recognized the challenging planting conditions and quickly provided program leniency for planting and harvesting cover crops on prevented planting ground. This responsiveness brought much needed relief to many producers.

In 2019, Northeast producers purchased 20,546 crop insurance policies, protecting 2.6 million acres with $1.3 billion of protection in force. These are the same Northeast producers that received over $525 million in claim payments due to weather and market-related crop losses from 2014-2018. The significance of these payments goes well beyond the farm gate covering input costs, replacing income that would have been lost due to crop losses and purchasing feed for livestock operations. These funds encourage additional investment on the farm while supporting the local agricultural infrastructure, economy and workforce.

The USDA and the Risk Management Agency are committed to meeting the needs of all producers. As crop insurance continues to evolve, it has expanded the number of crops being covered and further developed county crop programs. Crop insurance has also been enhanced to provide benefits to beginning farmers and veterans. Organic producers benefit as well with expanded organic pricing options to more accurately reflect their value of production.

An important step in preparing for the coming year should be to develop or review your risk management plan with your local Crop Growers crop insurance agent. Utilize your local agent's expertise by reviewing your business goals, business risks and marketing plan. An agent can help you develop a plan that meets your business needs.

Dairy Revenue Protection Program (DRP)

Since its introduction in 2018, the Dairy Revenue Protection Program (DRP) has revolutionized dairy risk management by insuring producers against drops in milk revenues on a quarterly basis to reflect coverage levels selected by the producer. It is broken down into two different pricing options: the Class Pricing Option or the Component Pricing Option. The first option uses Class III and IV prices as a basis for determining coverage and indemnities. The second option uses butterfat, protein and other component prices to determine coverage and indemnity levels.

These values, either ending milk price or component values, are determined by the monthly average price as recorded by USDA Agricultural Marketing Service in the milk production report.

This table shows the coverage level options as well as the premium support levels. A producer can cover from 80 to 95 percent of expected quarterly revenue.

DRP PREMIUM SUBSIDIES

COVERAGE LEVEL PERCENT	80	85	90	95
PREMIUM SUBSIDY LEVEL	55	49	44	44

DRP coverage selections are available daily on a rolling basis and based on futures prices of class prices or components, as applicable. Generally, coverage options can be selected by quarter up to five quarters in advance. As the beginning of a new calendar quarter approaches, sales for quarter immediately preceding end and a new quarter opens one year out.

Corn & Soybeans – Yield and Revenue Plans of Coverage

During 2019, Northeast producers insured over two million acres of corn and soybeans for approximately $65 million in crop insurance. This insurance provided protection of over $700 million.

Corn and soybean grain producers utilize crop insurance to protect their investment by guaranteeing yield and/or revenue, while livestock producers utilize crop insurance to protect their investment, guarantee yield to meet their feed needs and offset the cost of purchasing replacement feed when in a crop loss situation.

Coverage options for corn and soybean producers include a Yield Plan and a Revenue Plan. Producers can insure as much as 85% of their production history or as much as 85% of their policy revenue determined by their production history and the projected prices of corn and soybeans.

The table below shows the coverage level options as well as the premium support levels. Producers that meet the Enterprise Unit Structure (when a producer combines all land for a particular crop in a county into one unit for coverage purposes) qualifications receive a greater premium support level.

Pasture, Rangeland and Forage (PRF)

The Pasture, Rangeland and Forage (PRF) program protects forage producers against losses due to drought. PRF is an effective and affordable tool for producers who need to offset losses caused by reduced forage and grazing due to lack of rainfall.

Producers can insure all or part of a pasture, rangeland or field used for haying or grazing. They can choose which months to insure (minimum of two, two-month "index intervals"). In any selected interval that rainfall is less than 90% of the historical average, the producer will receive a payment to offset their losses. The sales closing date for the PRF Rainfall Index is November 15 each year for the following year's coverage.

Whole-Farm Revenue Protection (WFRP)

Whole-Farm Revenue Protection (WFRP) provides a risk management safety net for all of a farm's agricultural commodities under one insurance policy and is available in all Northeast counties. WFRP is suitable for farms with up to $8.5 million in insured revenue, including farms with specialty or organic commodities (both crops and livestock), or those who market to local, specialty or direct markets.

WFRP uses a producer's five-year historical farm average revenue, as reported on IRS Schedule F, and an annual farm report as a base to provide a level of guaranteed revenue for the insurance period. This protection establishes revenue as a common denominator for the insurance of all agricultural commodities on the farm. The sales closing date for Whole Farm Revenue Protection (WFRP) is March 15.

For Northeast producers, planning for the upcoming year includes developing a risk management plan that prepares their business for weather and market volatility. Having a sound risk management plan in place can protect input costs, yields and market risks. For more information about insuring corn and soybeans, Dairy Revenue Protection, Pasture Rangeland Forage or Whole Farm Revenue Protection, contact your local Crop Growers agent. ♦

COVERAGE LEVEL	50/55 (CAT) YP ONLY	50/100	50/100	60/100	65/100	70/100	75/100	80/100	85/100
PREMIUM SUPPORT	100%	67%	64%	64%	59%	59%	55%	48%	38%
ENTERPRISE UNIT STRUCTURE*	NA	50/100	55/100	60/100	65/100	70/100	75/100	80/100	85/100
PREMIUM SUPPORT	NA	80%	80%	80%	80%	80%	77%	68%	53%

*Specific qualifications must be met to qualify for an Enterprise Unit discount. Please discuss with your agent for availability. A $655 administrative fee is charged for CAT coverage. A $30 administrative fee is charged for buy up coverage.

2018 NORTHEAST CROP INSURANCE STATISTICS

	POLICIES	ACRES COVERED	PROTECTION IN FORCE	PRODUCER PREMIUM	INDEMNITY PAYMENTS
CONNECTICUT	275	18,364	$ 40,812,229	$ 2,421,948	$ 2,021,404
MASSACHUSETTS	520	30,201	$ 10,869,884	$ 1,352,808	$ 1,678,470
MAINE	716	113,706	$ 79,494,584	$ 3,659,000	$ 3,113,715
NEW HAMPSHIRE	75	8,988	$ 4,997,123	$ 175,407	$ 297,493
NEW JERSEY	1,467	156,841	$ 84,694,113	$ 1,687,570	$ 5,851,178
NEW YORK	6,178	1,095,439	$ 600,579,017	$ 19,086,361	$ 22,489,970
PENNSYLVANIA	10,937	1,163,659	$ 489,479,136	$ 18,234,018	$ 31,872,252
RHODE ISLAND	35	1,290	$ 1,248,073	$ 34,398	$ 128,459
VERMONT	403	70,982	$ 25,135,285	$ 972,880	$ 1,305,880

Source: Rain and Hail Insurance Society

2020 DAIRY OUTLOOK

After five years of low milk prices, you won't hear farmers talking about 2019 as a year of recovery. However, milk prices rose 18% over the course of the year and farmers saw milk prices hit nearly $20 per hundredweight (cwt) for the first time in five years. Today, the industry is still recovering from the 2018 tariffs that resulted in lost export sales and depressed dairy prices. In 2019, exports on a volume basis were about 2% behind 2018, though are up 4% on a value basis, driven by an increase in cheese exports.

As we look to 2020, markets are sorting themselves out and generally improving. We do not expect to see the jump in prices we saw last year, instead pricing seems to be holding steady. Current forecasts anticipate Northeast farm blend prices to be about $1.50/cwt on average higher in 2020 than last year.

CATHERINE DE RONDE
SENIOR ECONOMIST, AGRI-MARK

Milk Production

In the last months of 2019, national milk production slowed in response to poor feed and weather. The trend is likely to continue at least for the first half of 2020. Production growth in 2020 is anticipated to average in the 1% range. If we can shore up the demand side of the equation and recover some of the lost export sales, a slowed growth in milk production will be positive for milk prices.

Cheese Price

Cheese prices gained nearly $0.70 in 2019, mostly in the second half of the year when prices, for the first time since 2014, surpassed $2.00 in September. Yet equally as significant as the price increase was the increase in volatility. Historically, the block-barrel spread has been $0.03 with the block at a premium. We not only saw the spread widen to a record $0.38, but also shortly after saw an inverted spread (barrel at a premium to the block) of $0.30. In late December, following weeks of high prices, the barrel gave up nearly $0.70 in a week's time. Prices have since retreated to $1.80's block/$1.50's barrel with a significant spread remaining. Futures markets indicate cheese to be in the high $1.70s to low $1.80s for much of the year.

The cheese market's volatility is unprecedented and, at this point, it's unclear how it will play out. Increased cheese processing capacity is expected to come online in late 2020/early 2021, which will increase the supply of cheese (and whey) and put pressure on these product prices. However, with new trade deals and opportunities on the horizon, growth in cheese exports is expected to continue.

Whey

The dry whey market has been extremely challenged over the last few years with the combination of Chinese tariffs and the emergence and spread of the African Swine Fever (ASF) that has devastated the Chinese swine herd. As ASF spreads, demand for whey (fed to piglets) was significantly reduced and prices declined to the low $0.30s. China has been rumored to be building back its swine herd, however, this will not be an easy task and will take time to rebuild. Futures markets estimate whey to have marginal increases and hit the low $0.40s by the end of 2020.

Butter

High butter production, in part driven by high-component milk, has been driving up butter stocks. Also contributing to the high stocks are reduced exports of butter which are down 2% from 2018, due in part to U.S. butter prices being at a premium to the rest of the world. Stocks are putting negative pressure on butter prices which have lost $0.25 in the last three months and currently sit at $1.90. Futures markets show butter slowly improving throughout 2020 into the $2.10 to $2.20 range.

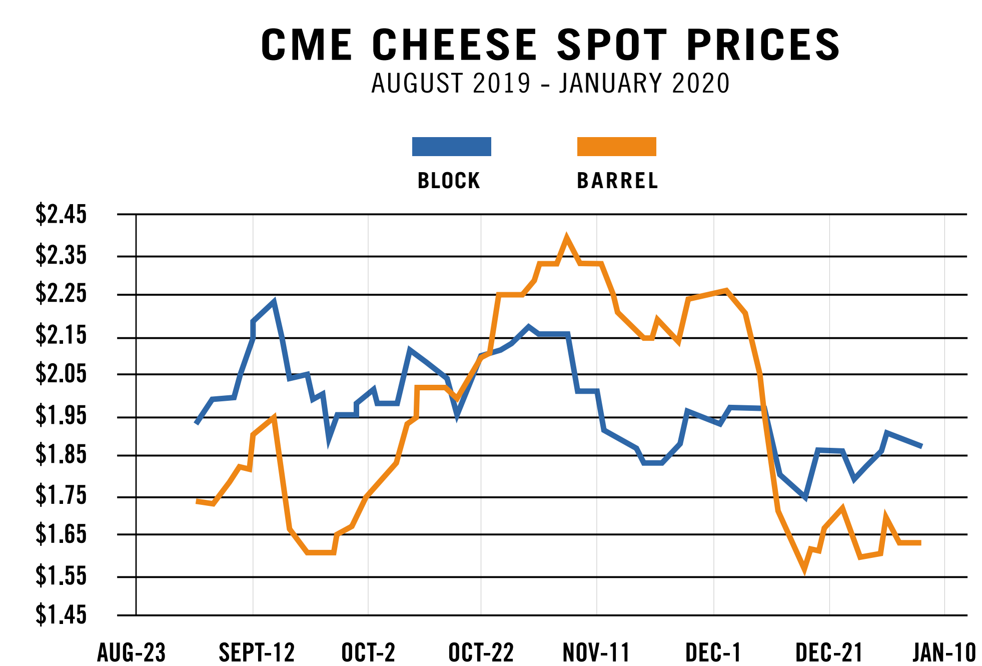
Nonfat Dry Milk

Nonfat dry milk is on the road of recovery following several years of depressed prices. Early this year, the European Union Intervention Stocks of skim milk powder were finally sold off, relieving the downward pressure on global powder markets and sending nonfat prices on a steady upward trajectory. In May, nonfat prices went over a dollar for the first time since 2017. Since then, prices have continued to climb to the $1.20s (a price not seen since late 2014) and futures markets indicate a steady climb to the $1.30s by the end of 2020.

Summary

With milk forecasts improving, it can be easy to ignore the need to manage risk, but let us not forget our recent history which has shown the environment we are in can (and has) caused market conditions to change quickly and milk prices to drop significantly and unexpectedly. We are in a period of new market volatility, consolidation and trade tensions that has put us in uncharted territory. Risk management programs can be critical tools to help manage market uncertainty, but participation is a function of a farmer's own business and risk tolerance level. This past year brought several improvements to farmers' ability to manage risk, including the establishment of the Dairy Revenue Protection Program and changes in the Farm Bill's Dairy Margin Coverage program, both of which are worthy of farmer consideration.

Looking at the dairy industry today, if anything is certain, it is that the world is changing. There is change in our consumers and their consumption patterns, demands and preferences. There's change in our traditional price cycles, change in our dependence on global markets, and change in farm sizes and consolidation in the industry. Change is hard, but every change brings an opportunity for our industry to make itself better.



U.S. Grain & Oilseed Update

DR. SETH MEYER

ASSOCIATE DIRECTOR AND RESEARCH PROFESSOR, UNIVERSITY OF MISSOURI

A Most Unusual Year

2019 was a year of extremes, delays and uncertainties. In a year of widespread planting and harvesting difficulty across the Midwest, commodity prices rode a roller coaster of trade related news. Many in the industry were simply glad to close the book on 2019. As the year concluded, the crop sector took another twist as news emerged that a new trade deal with China would be signed early in 2020. The implementation of the "Phase 1" trade agreement with China remains uncertain and the impacts for the ag sector are as of yet, unknown. It is not possible to discuss the outlook without noting this recent development, but uncertainty remains a consistent theme for 2020 much as it was for 2019.

A less than ideal growing season

2019 began with persistent and widespread wet conditions across much of the U.S. The United States Department of Agriculture announced early in the year that the second half of payments under the new Market Facilitation Program (MFP) were being authorized but signup and payments were being delayed by a protracted government shutdown. The U.S. and China continued tit-for-tat increases in retaliatory tariffs and the White House had ended 2018 indicating the possibility of withdrawing from NAFTA, ratcheting up the pressure for Congress to pass the recently signed USMCA with Canada and Mexico. This left open the very real possibility that inaction would lead to neither agreement being in effect, potentially throwing trade with two of our largest trading partners into disarray.

In 2018, the U.S.-China trade dispute directed much of China's soybean purchases to Brazil. Because China represents such a significant portion of global soybean trade, the volume of soybeans demanded by the Chinese challenged the markets' ability to simply shift the market by having Brazil send all its soybeans to China and leaving the U.S. to serve the rest of the world. As a result, a significant price wedge opened, peaking at $2.30 a bushel premium for Brazilian soybeans over those from the U.S. As African swine fever (ASF) intensified in China, decimating their swine herd, Chinese demand waned as Brazilian production rebounded. With enough soybeans to go around in global trade the price wedge collapsed. The impact of ASF on soybean global demand will continue to influence markets through at least 2020.

Wet weather in the fall of 2018 had contributed to pushing winter wheat seedings to the second lowest planted area for over a century. Continued precipitation would keep many of those acres unplanted. As producers' thoughts turned to 2019 spring planting they reported an intention to shift significant acreage to corn (nearly 93 million acres in total) from soybeans (falling to less than 85 million acres) compared to 2018 when crops had already been in the ground when the trade dispute with China began to escalate. This would be the first year where the trade friction would factor into planting decisions for corn, soybeans and wheat.

As wet weather continued, corn planting progress fell further behind, proceeding at a slower pace than at any time in the last three decades. As crop insurance deadline dates approached for corn, the often-repeated claim was this would push more area out of corn and into soybeans, with their later insurance deadline. The price of corn relative to soybeans surged as a result. Many in the trade continued to expect that those yet-to-be-planted corn acres would be shifted to soybeans, if they were planted at all. While the jump in the relative soybean-to-corn harvest futures reflected those planting delays, it also acted as a signal, to any producer able to, to keep planting corn. Finally, crop prices were also supported by an acknowledgement that many acres were planted in under less than ideal conditions or were subject to replanting, cutting yield potential. The USDA announced MFP-2 as trade friction with China intensified, but details were limited as the administration sought to minimize the impact of the program on producer planting decisions.

The release of the USDA's June Acreage report did little to end the acreage and production debate. The report suggested a large decline in planted area, but that farmers had managed to get in more corn acres and fewer soybean acres than thought. It also indicated many of those "planted" acres reported remained an intention to plant by producers sidelined by rain. Wheat acres, winter and spring combined, would also total to the lowest area planted since records began in 1909.

Harvest time brought little relief with rainy and snowy harvest conditions for some, particularly in North and South Dakota. Some locations saw a shortage or even unavailability of liquid propane (LP) gas even as the late maturing crop needed to be dried down. The year closed with the greatest percent of corn, soybeans and sorghum acres left to be harvested since 2009 and adding lingering uncertainty, at least for some. Farm income for 2019 was actually higher than the prior year, however. This was entirely possible because of the increased MFP payments during the year. Had it not been for those payments, farm income would have fallen year-over-year and been below the long run average.

Just as the year was concluding with many producers hopeful to simply close the books on 2019, the administration announced the conclusion of a "Phase 1" trade deal with China.

What might the trade agreement with China bring in 2020?

We can anticipate some things about the coming 2020 crop year. If planting progress returns to a more normal pace and producers achieve trend yields for most major crops, supplies of nearly all major crops will rise. Such increases in supply would normally be accompanied by falling commodity prices. The announced "Phase 1" trade deal with China, however, offers at least the possibility of a return to a more "normal" trade environment with China or even expanded trade. But at this point little is known of the details or impacts of "Phase 1" and much of the change in fortunes (or lack of it) depends on not only the unknown details of the agreement, but how or if the Chinese fully implement the deal.

> ***"...the possibility of a return to a more "normal" trade environment with China or even expanded trade."***

Upon signing of the trade deal with China, the price of soybeans in Chicago promptly fell. Key details in the published document were lacking, but of note were two points expressed both in the document and by the Chinese delegation at the signing ceremony. First, the deal was significantly "back-loaded." While \$40 billion in total agricultural export value from the U.S. to China was widely discussed, details showed that trade in 2020 was to be \$36.5 billion rising to \$43.5 billion in 2021. In addition, the document contained wording that the Chinese would buy based upon market conditions and U.S. price competitiveness. The combination tempered expectations for an immediate surge in trade and further raised the stakes for progress in "Phase 2" negotiations to solidify any trade gains for agriculture.

Specific sub-targets for grains, oilseeds, and pork and poultry are widely reported but have been kept out of the public record. With speculation of the impact of "Phase 1" varying from meaningless to unachievably large, the impact could vary considerably by commodity depending on Chinese actions. Further, even if the change in total U.S. export volume of specific agricultural commodities is modest, crop price changes would affect all bushels marketed, not just those sent to China. As such, limited changes in aggregate trade could still bring with it improved returns for a wide variety of products from direct Chinese demand and from indirect effects from processed products.

Commodities most likely to see direct effects are feed grains such as corn and sorghum, food grains like wheat and rice, soybeans, pork, and co-products ethanol and dried distillers grains (DDGS). The Chinese have signaled no change to their Tariff Rate Quota (TRQ) for corn, wheat and rice, essentially fixed volumes that can be imported at low tax rates. However, these have historically been widely underfilled. In light of the "Phase 1" agreement and a loss at the WTO over Chinese government action resulting in TRQ underfill, one outcome may be for the Chinese to increase imports of all three grains to TRQ limits, resulting in modest gains in global trade for all three commodities. Even if not directed specifically toward U.S. origins, it would provide price support in the global market. For soybeans, positive impacts of the Phase 1 agreement are tempered by the negative impact that ASF continues to have on total Chinese demand for soybeans. So, while like corn, we may see some price increases, gains in total soybean exports may be modest.

There are commodities where increased Chinese demand would expand global trade more noticeably. Increases in Chinese ethanol imports would likely result in global net gains in ethanol trade. Ethanol demand in the U.S., and in some of our major export markets such as Canada, is backstopped by policy mandated use. As such, additional ethanol demand by China would only result in a partial loss of other markets. Direct demand for other feeds like sorghum and DDGS would depend on internal Chinese demand for feed and if the Chinese choose to build stocks or sell into the market any additional corn imported. Large Chinese imports of sorghum would, as has been seen in the past, increase sorghum prices and result in the loss of all other export markets as corn becomes a cheaper alternative based on feed value. In short, the "Phase 1" agreement is likely to support crop and livestock prices generally, but how much depends significantly on the details, progress made toward a longer-term agreement, and finally China's actual purchasing behavior. The year 2020 looks to be another year of continued uncertainty in the agricultural sector. ♦

Northeast Fishing Industry Shows LONG TERM ECONOMIC RESILIENCE

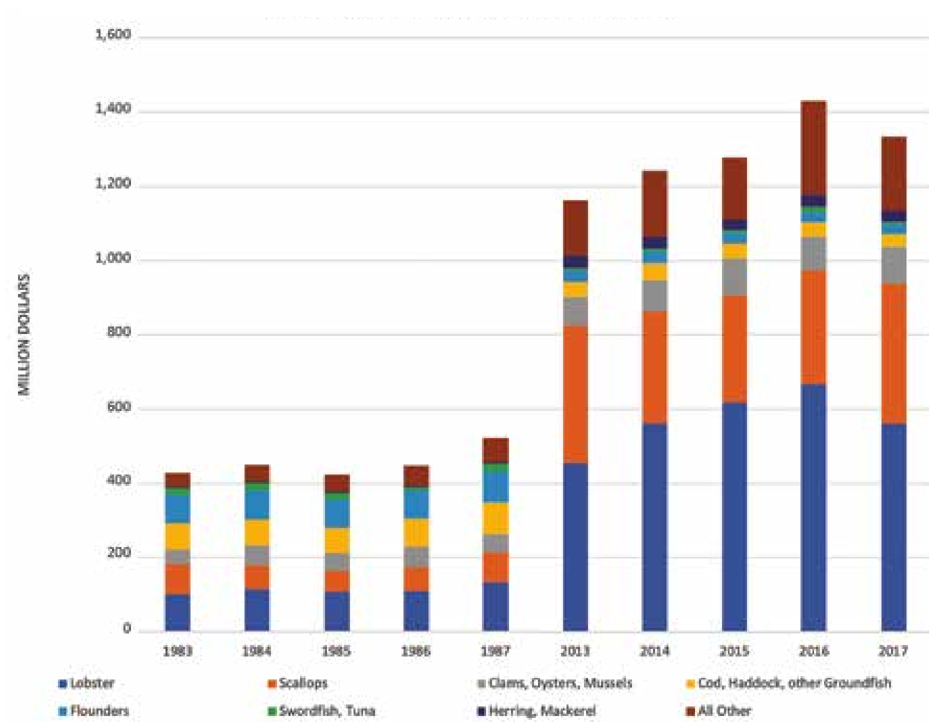
JOHN SACKTON
FOUNDER, SEAFOODNEWS

To a casual observer, New England's seafood industry may seem like a relic that has passed its glory days. Think of shoes in Massachusetts, or the dominance the region used to have in minicomputers and word processing companies like Digital Equipment Corporation, Data General and Wang.

But unlike these industries that exist in memory only, the New England seafood industry is thriving. It is economically successful and has grown in value equal to or faster than inflation over the past forty years. To examine this result, we took aggregate numbers from the NOAA Fisheries commercial landings database for the period 1983-1987 and 2013-2017. We chose these two five-year periods because, when averaged, they provide a better snapshot than a single year and because 2017 was the latest year with complete data.

Many fishermen in the region look back to the 1980's as their heyday. The U.S. had recently established the 200-mile limit, many new boats were in the water and fishermen were optimistic about replacing the foreign fishing effort that had been occurring off the coast. According to NOAA, for the five-year period from 1983 to 1987, landings in New England totaled 3.1 billion pounds. For the five-year period from 2013-2017, total landings were also 3.1 billion pounds.

NEW ENGLAND SEAFOOD COMMERCIAL LANDINGS



The inflation adjusted value (in 1980 dollars) was \$1.9 billion in the 1980s, while in the 2010s it was \$2 billion. In nominal value (roughly today's dollars), the total revenue reached \$6.5 billion for the five-year period 2013-2017.

What underlies this long-term stability in value? The primary reason is that the species mix landed in New England has changed and a greater portion of the landings are higher value species. As species like cod and flounder became less available, the industry turned to different and often higher value species like lobsters, scallops, clams and oysters.

This has allowed major ports like New Bedford, Mass., to thrive while also keeping the fishing industry resilient along the coast of Maine. Unfortunately, it has also stranded those harvesters whose licenses were primarily for species that have declined. A quota system based on fishing history has forced out many vessels whose target species have declined. They have not been able to make the jump to new species in many cases.

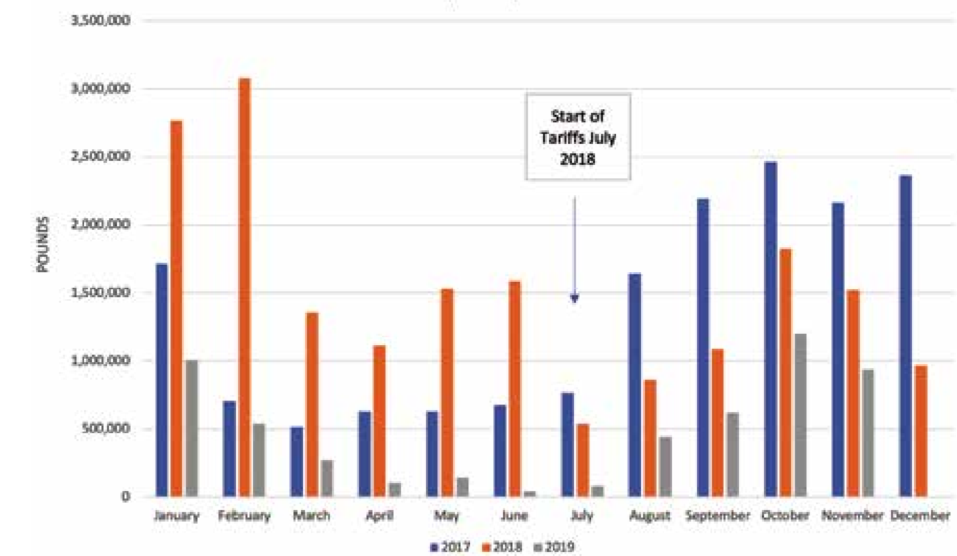
For this reason, there has been a large decline in the total number of regional fishing vessels, while at the same time, the total revenues for the industry have been stable. Those companies and vessels in the expanding fisheries have made up the difference.

The two most valuable fisheries in New England are lobsters and scallops. In the 1980s, lobster represented 25% of the total value in our five-year snapshot. By the 2010's, this had climbed to 44.5%. There has been both a significant increase in landings, and a big rise in price as more customers, especially overseas, buy lobster. China has become the second most important lobster market after North America. This has transformed the industry in both Canada and the U.S. In the 1980s, scallops represented about 15% of total value, but represented 25% in the 2010s. Again, higher landings and higher prices have made this fishery thrive.

In 2020, trade issues are a major concern for the New England seafood industry. Surprisingly, the lobster tariffs that have cut back exports to China have not been as damaging as feared. The reason has been that lower landings in both Canada and New England helped support higher prices.

The decline in landings has cushioned dealers against the radically lower sales to China. Prior to the tariffs in July 2018, the U.S. was supplying about 50% of the Chinese live lobster market. This ended when the tariffs were imposed. It took a few months for the market to adjust, but for the period from July-November 2019, lobster shipments to China were down 42% compared to the prior year. The U.S. is currently only supplying about 25% of the Chinese demand. Canada supplies the other 75%.

US LOBSTER EXPORTS BY MONTH TO CHINA



Maritime Canada produces both lobsters and scallops of the same species found in New England. In addition to the advantage Canada has with exports to China, another long-term concern for the industry is the advantage Canada has with seafood exports to Europe, including both lobster and scallops. Canada has signed a free trade agreement with the EU which gives its products zero duty, versus approximately an 8% duty for U.S. lobster and scallop exports to Europe.

The result has been to sharply curtail exports of these products to Southern Europe, especially France, Italy and Spain. Long term, this has been an important market, and losing a competitive edge represents a real risk.

For the past five or six years, regional lobster landings have been well over 100 million pounds, which represent record highs. In 2019, it is possible that landings will be down as much as 20% or 30%, likely well below 100 million pounds. This shortfall is cushioning the impacts of these negative trade developments. Should supplies rebound, the lack of competitive access to these export markets will result in lower prices.

The U.S. industry has compensated by selling more lobsters and scallops domestically. But this leaves the industry vulnerable if there is a recession in 2020.

All higher priced seafood items are vulnerable to a correction in a recession, but lobsters and scallops are particularly so. The reason is that consumers cut back on their restaurant spending where most lobsters and scallops are consumed. In addition, at retail, they have the opportunity to trade down to lower priced options.

Regardless of any short-term headwinds, a long-range perspective shows that the seafood industry in this region is highly valuable, very stable and is a continuing economic contributor across all five New England coastal states. ◆

2020 Green Industry ECONOMIC OUTLOOK

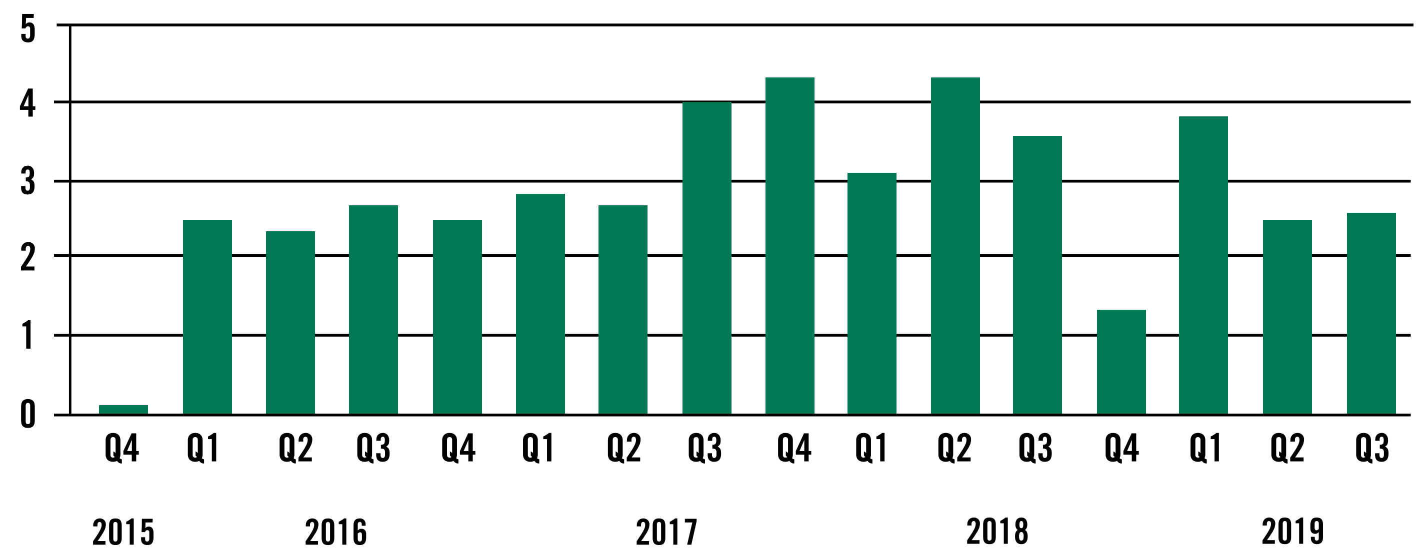
Unlike many sectors of the agricultural economy, nursery and ornamental greenhouse production tends to be influenced primarily by the state of the general U.S. economy – particularly housing markets and consumer spending. Therefore, the continued good performance of the overall economy is a positive for the green industry heading into 2020.

DR. CHARLES R. HALL
PROFESSOR & ELLISON CHAIR IN INTERNATIONAL FLORICULTURE, TEXAS A&M UNIVERSITY

In July 2019, the current economic expansion became the longest in U.S. history. However, after expanding at a 3.1% pace in the first quarter of 2019, the economy slowed down considerably and grew by a rate of only 2.0% in the second quarter, 2.1% in the third and first estimates of fourth quarter gross domestic product (GDP) ranged from 1.3% to 2.3%. GDP in 2020 is expected to remain in the 2% range for the year. The unemployment rate dropped further in 2019, with the headline jobless rate starting at 4% in the first half of the year, then declined to 3.5% by the end of the year. However, the economic news was mixed for the green industry in 2019 as regional weather patterns and economic differences were variable and labor availability issues continued to plague the industry.

The good news is that consumer spending has been supported by job gains and wage growth. However, while those at the bottom of the income scale have seen significant improvement, largely due to increases in state and local minimum wages, and the top 1% are doing well, the middle class continues to struggle. Reasons for this include higher health care costs (the health insurance component of the Consumer Price Index rose over 20% in 2019), higher education costs and a lack of affordable

REAL GDP: PERCENT CHANGE FROM PRECEDING QUARTER



U.S. Bureau of Economic Analysis. Seasonally adjusted at annual rates.

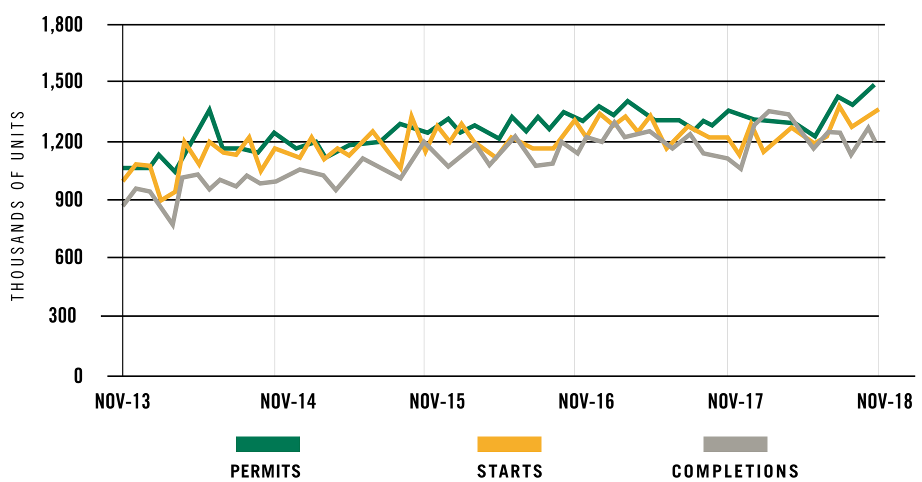
housing. The economic prospects of middle-class independent voters will likely be key in the November 2020 election.

Overall, lawn and garden spending increased to $52.3 billion despite a slight decrease in household participation. While the lion's share of spending in the lawn and garden industry is led by Boomer households, once again, Millennial households reported strong levels of participation, spending and—perhaps most importantly—planned future purchases. The national gardening survey revealed that 38% of 18-34-year-olds planned to spend more on lawn and garden activities in 2019, compared to the overall average of 29%. In addition, 18-34-year-olds accounted for a quarter of estimated lawn and garden spending despite having lower household incomes and being more likely to live in an apartment or condominium. Household participation in lawn and garden activities among younger households largely matches other age groups but has grown at a faster rate than other segments over the last five years.

The green industry is strongly correlated with housing, and new home sales continue to be a bright spot for the U.S. economy. The number of single-family homes sold in 2019 was up almost 17% from a year ago. The average sales pace in the past three months sits at a post-recession high. New home sales normally run around 70% of single-family housing starts but have now exceeded that threshold for each month of the past year, signaling plenty of appetite for new homes. As a result, home construction needs to pick up to keep pace with consumers' appetites. The good news is that builders are responding, with the number of new single-family housing starts surging over the past several months to within spitting distance of new highs for this current economic cycle. Sales in 2020 are expected to surpass 2019, continuing an upward trend.

NEW RESIDENTIAL CONSTRUCTION

SEASONALLY ADJUSTED ANNUAL RATE



Source: U.S. Census Bureau, HUD, December 17, 2019

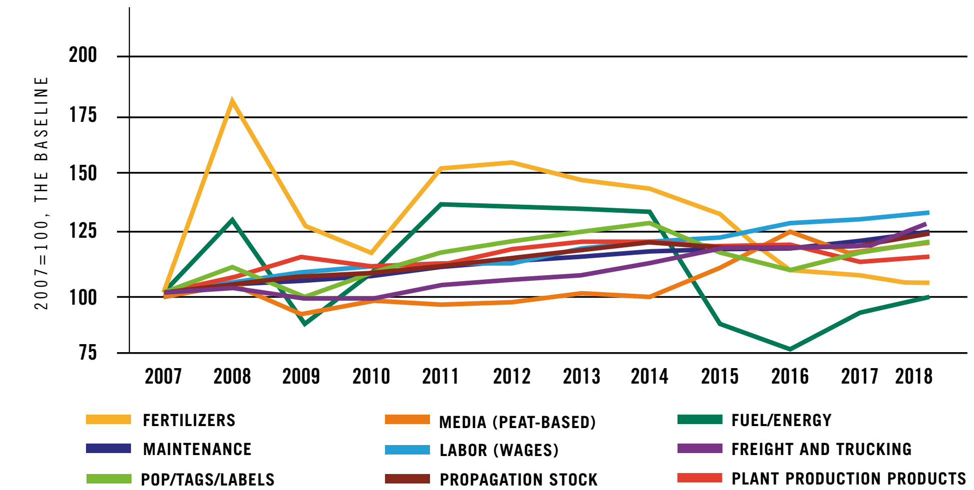
Some of this growth in housing has been the result of the Federal Reserve Open Market Committee (FOMC) being proactive, cutting the federal funds rate 25 basis points three times in 2019. The FOMC also provided needed liquidity to short-term funding markets by starting to expand its balance sheet again with purchases of short-term Treasury bills.

Currently, there is a temporary truce in the U.S.-China trade war, but there is greater price uncertainty in the global agricultural marketplace. Input costs for many green industry firms will likely continue to rise, exacerbating the cost-price squeeze already being experienced. The prices of grower inputs are 26.8% higher than they were pre-recession, according to recent calculations of the Index of *Prices Paid by Growers*.

In summary, the economic expansion that has been underway in the U.S. for more than 10 years will likely continue for the foreseeable future, albeit at a subdued pace and likely to remain modest over the next two years. But all economic forecasts, even in the best of times, are subject to at least a bit of uncertainty and the unsettled political and geopolitical environment imparts more uncertainty than usual into the economic outlook.

INDEX OF PRICES PAID BY GROWERS

2007-2018



It is helpful to remember that recessions occur in one of two ways. First, an "exogenous" shock can lead to an economic contraction. For example, the moonshot in oil prices that occurred in the aftermath of the OPEC oil embargo in late 1973 was the proximate cause of the deep downturn in the U.S. economy in 1974 and 1975. But exogenous shocks are difficult if not impossible to foresee, and most forecasters generally refrain from incorporating them explicitly in their outlooks.

Second, economies can also slip into recession when imbalances build up in an important sector, such as housing in the previous decade or the tech sector in the 1990s. A sudden unwinding of these imbalances can then lead to an economy-wide downturn. A hallmark of the current expansion in the U.S. economy is its relative lack of these large and noticeable imbalances. However, housing prices are only 11% lower than what they were before the collapse during the last recession, so this will be an important indicator to follow over the next year.

> "...only a **40% chance** of recession occurring in 2020..."

Considering the current economic indicators in light of the variables reflecting down-side risks, I estimate there is only a 40% chance of recession occurring in 2020, but an 80% chance of a recession in 2021. This means that green industry firms should continue to have an overall favorable market situation in 2020 but will experience increased costs of doing business due to trade and non-trade inflationary effects. Thus, it is imperative for green industry firms to begin contingency planning for the impending downturn when it does occur.

These contingency plans should incorporate proper strategies for managing working capital, continuing to incorporate lean manufacturing strategies into the value chain, ensuring the firm is not over-leveraged going into the downturn, carefully evaluating CAPEX investments, and positioning the firm properly by articulating the company's value proposition in its key customer base. ♦

THE FOREST PRODUCTS INDUSTRY: A KEY PART OF THE NORTHEAST ECONOMY

Forests, and the industries that rely upon them, are a cornerstone of the Northeast's rural economy. The region — and its people — are defined by the forests that grow, the foresters who manage, the loggers that harvest, and the mills that make a full range of products that consumers demand. While the forests are a constant of our region, the way we utilize the forest is ever changing, presenting opportunities and challenges in a shifting landscape

ERIC KINGSLEY
VICE PRESIDENT, INNOVATIVE NATURAL RESOURCE SOLUTIONS, LLC

SAWMILLS AND LUMBER

When we think about the forest industry, it's often sawmills and lumber that first come to mind. Turning logs into boards is our first forest industry, and remains the most important market for most landowners (at least from a revenue basis). For hardwood mills (think fine furniture, cabinets and floors), it has been a challenging year. A trade war between the U.S. and China and resulting tariffs on hardwood exports hit this market hard, resulting in capacity reduction and lost shifts at sawmills across New England and New York. Of course, this didn't just impact the mills—it hit the loggers and landowners that supply logs, and the economies of regions that rely upon these manufacturers. There is a glimmer of hope that the trade war is winding down but, if true, that means things just go back to where they were. Mills will need to reestablish both supply and markets and many in the industry are wondering if being so heavily tied to exporting to a single country is desirable or sustainable.

SOFTWOOD

On the softwood side, (think 2x4s), we've seen housing starts trend upward for a decade, which has provided an expanding market. While that may or may not continue, a decade is a long—but not unprecedented—run of good news. At the same time, new houses have been getting smaller. Smaller houses use less lumber and panels for framing, so we may have reached a peak in demand. Most mills have made significant investment in technology to reduce costs and optimize production, but that means the easy ways to control costs have been implemented. If the market for lumber softens, expect log prices to drop—that's really the last spot for mills to look to control their costs.

PULP AND PAPER

On the pulp and paper side, the tide has truly turned. After a few years of bad news and mill closures, the Northeast is now in an era of mill reinvestment and product diversification. We've seen mills add packaging, tissue and specialty grades, providing new markets beyond traditional printing and writing. Most mills have made investments—some of them major—that provide real optimism for continued operation. And in Old Town, Maine, we've seen the restart of an idle pulp mill with a switch to softwood that should provide a critical market for loggers and landowners.

BIOMASS

Biomass for energy continues to face strong headwinds — both on the market fundamentals and in public policy. Electricity prices in New England and New York are heavily influenced by the price of natural gas, which remains low. On the public policy side, regulators across the region are clearly favoring renewable energy from solar and wind, despite the significant and ongoing economic benefits associated with fueling a biomass plant. On the positive side, biomass heating remains extremely competitive with oil—the dominant heating fuel in many parts of the Northeast. New public policy in Maine and Massachusetts (mirroring existing policy in New Hampshire) has campuses, hospitals, schools and others evaluating the opportunities to move away from oil to biomass heating with wood chips or pellets.

NEW USES OF WOOD

In addition to the traditional markets, the region is seeing very real movement toward new uses of wood. In Madison, Maine, a company is converting the former paper mill to make insulation out of softwood chips using a technology that's been in use in Europe for years. Across the region, we've seen serious evaluation of wood-based bio-fuel and bio-chemical opportunities—eventually, one of these technologies is going to be ready for commercial development, and the Northeast has both the resource and the market.

Mass timber technologies like cross-laminated timber also presents an enormous opportunity; using wood to build enormous panels used in low to mid-rise construction. Across the region, there's lots of excitement around "tall wood buildings," with projects in Massachusetts, New York and New Hampshire. There have been multiple announcements of manufacturing mass timber panels in Maine, but so far, the announcements haven't led to any further action.

LOOKING AHEAD

The dark cloud on the horizon for the forest industry remains its workforce. In both the woods and at the mills, many sectors have an aging workforce which will see large waves of retirements in the coming years. There are some programs to address this, but a simple look at the demographics suggests that we need more loggers, foresters, truckers, mill workers and others entering the industry to sustain and grow the current level of economic activity.

The forest industry across the Northeast is ever evolving, with new challenges and opportunities constantly presenting themselves. We've reached a time where the resource and markets are both healthy, with opportunities to expand in many areas. Investments now and in the coming years will help position the forest industry—and the rural economies that it supports—for sustainable success. ♦

A New Age in Grocery Retailing for Produce Suppliers

JIM PREVOR

CEO AND EDITOR-IN-CHIEF,
PHOENIX MEDIA NETWORK /
PRODUCE BUSINESS MAGAZINE

The year 2020 may be the year the Northeast begins to catch up with the rest of the country in produce retailing, and the effect on Northeast producers may be dramatic.

My father, Michael Prevor, was a substantial exporter of U.S. produce, including important Northeast crops such as apples from New York, Vermont and Massachusetts, potatoes from Maine and Long Island, cranberries from Massachusetts and onions from upstate New York. He also shipped weekly mixed loads of fruits and vegetables from around the Northeast, across the country, and the rest of the world, down to the Caribbean after assembling the vans on the Hunts Point Market in the Bronx, N.Y.

Over the years, customers would visit my home and, as a young boy, I would hear them ask my father for guidance in studying the industry here in America. They would ask to visit the most important national supermarket chains and would be shocked to learn that there was no such thing. The United States, so vast in its expanse, was dominated by regional supermarket chains.

Then in 1988, in Washington, Missouri, Wal-Mart opened its first Supercenter—combining its general merchandise store with a supermarket—and began a rollout of similar stores across the country. Today, with more than 3,500 Supercenters in the U.S., plus over 800 smaller Neighborhood Markets, Wal-Mart—now called Walmart—would become the first true national supermarket chain.

Of course, this rollout did not go unnoticed, and supermarkets began a consolidation of their own. Safeway Inc. bought Genuardi's, Dominick's, Randalls and other stores. Kroger bought Ralphs, Fred Myer and others.

In the Northeast, there was a consolidation that wound up with with Netherlands-based Ahold Delhaize owning Stop & Shop, Hannaford and Giant Food Stores, LLC, while Shaw's and Acme wound up under common ownership. Other concepts, such as Wegmans Food Markets, began a massive growth initiative.

What would prove more significant in the long run is that there began the development of national food retail concepts. Walmart was the "granddaddy" of these concepts, but Costco, Whole Foods Market, Trader Joe's, Sam's Club, Aldi, dollar store concepts and others were gradually rolling out across the country. Each, regardless of its geographic scope, was designed as a specialized concept with national potential.

Whether focused on organic and natural foods, a deep discount offering or other appeals, these concepts, along with new delivery concepts such as FreshDirect or AmazonFresh, began to change the retail picture. If the fear of the supermarket owner in 1980 was

For Northeast Growers,

some key disruptions in the market:

1. Intense pricing pressure, as retailers try to compete with hard discounters such as Aldi, Lidl and dollar stores.
2. Less commitment to local sourcing, as national concepts try to use their volume-buying power to leverage better deals.
3. A reshuffling of market share, as new entrants gain shares and established players are thrown on defense.

that another supermarket would open across the street—bigger, more modern and eclectic—by 2020, the concern has transformed.

It wasn't as often an issue of another supermarket opening and driving the conventional store out of business. It was, instead, a death by a thousand cuts. A supercenter opens a few miles away, a warehouse club, a deep discounter, an organic/natural concept, a dollar store or an internet delivery offer. None of these concepts would drive out the conventional supermarket, but each would take a few percentage points off the top. In a high fixed-cost business, a decline of 20% in sales doesn't translate into a decline of 20% in profit. It means bankruptcy.

The Northeast has, until recently, largely been insulated from much of this. As the oldest section of the country, prime real estate is hard to get, and tough zoning makes it difficult to build stores. Competitors are entrenched.

Then Lidl, a German-based deep discounter having some trouble finding its place in the U.S. market, made its move. It purchased 27 Best Market supermarkets in New York City and has begun converting those stores to its own concept. This invasion in the large metropolitan New York market has brought the attention of every player to New York and the broader Northeast.

Produce and meat are the centerpiece of the offer that so-called "hard discounters" Lidl and Aldi both use to attract customers. It will require a big response by conventional retailers.

Katrijn Gielens, associate marketing professor at the University of North Carolina Kenan-Flagler Business School, conducted a study and found that grocery retailers located near Lidl stores reduced prices for many staple items by making them up to 55% lower than they were priced in non-Lidl markets. Gielens also found that competing retailers located near Lidl stores on average set prices 9.3% lower than in their other trade areas.

All this is happening while the retail share of food purchases shrinks. More than 50% of consumer food dollars are now spent on food consumed outside the home. Now, since foodservice purchases are higher priced, this doesn't translate to over 50% of the volume of food, but it represents a big change in produce-purchasing practices.

Fruit and vegetable growers and marketers will need to respond by transitioning traditional sales techniques focused on selling the product to new approaches focused on selling the customer.

The package, growing techniques and varieties that will appeal to a hard discounter are different from what would appeal to organic/natural concepts, club stores, internet delivery services, etc.

Failure to make this transition will hinder growers' ability to get into these retailers and, because many producers will not change or not change rapidly enough, we can expect that the wholesale community will see increased volumes. But, because the product is not properly tailored to the customer, we can also expect lower prices.

Lower prices to wholesale market-supplied retailers will create increased pressure for FOB sales to come down. So, Lidl's substantial entrance into the New York metropolitan area will be highly disruptive, with survival for producers depending on innovation, creativity and discipline. ♦

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