



In the 2018 editions of our Member Spotlight, we are highlighting thought leaders within each of SOCMA's ChemSectors – Pharmaceutical, Performance and Agricultural Chemicals. Our goal for ChemSectors is to provide members and others within the specialty and fine chemical industry information networks that will assist them in accomplishing their business objectives, provide customized industry intelligence, and identify stewardship and sustainability best practices.

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We are pleased to share with you in our third and final edition of the 2018 Member Spotlight thought leaders from ChemDesign, CJB Industries, Ethox Chemicals and Viakem, who have graciously shared insight on emerging trends, key market drivers and challenges they are seeing within the Agricultural Chemicals sector. Each has also provided a unique perspective based on their own roles within the industry.

Take a few moments to scroll through the pages and glean the latest insight from our Agricultural sector.

# Dave Mielke

A 30-year veteran of the chemical industry, Dave Mielke serves as President and Chief Executive Officer of ChemDesign in Marinette, WI. Dave's leadership has been instrumental in strategically expanding their services in the agricultural, specialty and fine chemical sectors. Prior to becoming President in 2006, he held positions as Director of Commercial Development and Vice President of Technology. He began his career as a development chemist with Aldrich Chemical and quickly took on more responsibilities in the areas of product development and management.

## President & CEO, ChemDesign

Under his leadership, ChemDesign has received national improvement and educational outreach honors from SOCMA's ChemStewards® Performance Improvement Awards, which will be presented at SOCMA's 97th Annual Dinner in December, and safety awards from the Wisconsin Safety Council. In 2014, ChemDesign was named Business of the Year by the Marinette/ Menominee Chamber.

## When did you become a part of the specialty chemical industry and why?

I became part of the specialty Chemical industry in 1990 as a Process Development Chemist with ChemDesign. Prior to that, I was involved with making fine chemicals for the Aldrich Catalog focused on diborane and silane chemistries. I didn't really pick the industrial segment as a lifetime career. but I enjoyed the diverse mix of new projects and working with some of the largest chemical producers in the world without leaving Marinette, WI. While Aldrich taught me a diverse array of chemistries, ChemDesign allowed me to work with other companies that were developing products on an industrial scale. These chemicals improved polymer characteristics, enhanced paper coatings, and had quality of life impacts in food and water on markets bigger than ChemDesign. Customer interaction and constant product changes keep the industry fresh and exciting.

## What is driving the market in the agricultural sector?

There are many factors and macroeconomic trends, but if I were to pick the most impactful, it would be industry consolidation to better leverage competencies and the need to sustainably feed a growing global population. Many of the blue-chip manufacturers have focused their efforts back on R&D to create smarter products and better application technologies, which are safer for the consumer and substantially improve productivity per acre.

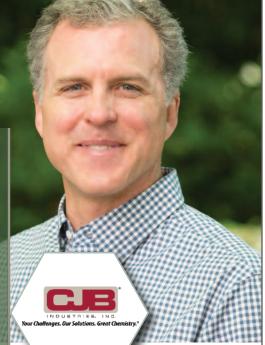
## What are some of the key challenges facing the agricultural market and how is your company dealing with them?

This is a long list with recent talk on tariffs, rolling shut downs of overseas suppliers, extensive and different testing and regulation by country, reduced commodity prices on corn, soybeans, sorghum, etc., etc. Some of these items do not directly affect ChemDesign, but they affect our customers. Our role is to be a stable, competitive and flexible manufacturer for the major producers. Our value is to grow with them, offer savings through yield and productivity enhancements and be flexible in a changing market. As a business we maintain a diverse portfolio of end products and a diverse portfolio of customers, so we are not impacted as substantially by a change in a market.

## As President and CEO of an award-winning toll chemical facility, what are some of the advantages and challenges to these types of business partnerships, particularly within the agricultural sector?

It takes years to develop a true partnership with a customer. There is a process of trust development, demonstration of competencies, value creation, flexibility and transparency. Companies with matching cultures work well together, as we are an extension of their production or process development. Many agricultural products are registered, hence barriers exist to move in or out. Regulatory management and product stewardship is paramount. To be successful in business, there are requirements for process support, environmental, health and safety (EHS) oversight, process safety management (PSM), Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) regulation, technical management, logistics, extensive quality control and quality systems, and waste management.

# Clinton Beeland



The founder of CJB Industries, Clinton began his career in the chemical industry while still a student at Georgia Institute of Technology. After completing his undergraduate degree in chemical engineering in 1990, he began moving up the ranks of management at several chemical manufacturing companies, including National Starch and Chemical, where he was a plant manager, and Griffin LLC, where he was a contract sales executive. Since launching CJB Industries in 1997, Clinton has consistently grown the company through expansions and acquisitions, building it into one of the most-respected chemical services companies in its market space.

## President, CJB Industries, Inc.

## When did you become a part of the specialty chemical industry and why?

You might say I became part of the specialty chemical industry in my youth when my parents gave me a chemistry set. I believe I was 10. In earnest I became part of the industry in the early 90s when I went to work for National Starch and later for Griffin Corporation (now part of Corteva). In 1997 CJB Industries, Inc., was formed to provide manufacturing services for the specialty chemical industry while targeting Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) registered products, as well as other specialty industrial products. I have now been a part of the specialty chemical industry for 30 years – an industry that tends to be on the forefront of change. It is always a challenge, and I believe I aspired to it because I like challenges and change.

## What is driving the market in the agricultural sector?

The simplest answer is population growth. In addition to basic needs, the world also has greater "wants" because of increased overall wealth. As a society, we are becoming more and more urban, which means there are more opportunities for pests, as well as mold and mildew. There are also "needs" in the construction market for materials to improve these situations. Because these are combatted with FIFRA-type products, they are driving the industry and ultimately our business.

On the agricultural side, there is a demand for food, energy and specialty chemicals for a growing population. Farmers want more yield from the land, so they are planting closer together in an effort to create new products and plants. Since bacteria, fungus and other inhibitors also grow when the farmer plants closer together, a need is created for even more FIFRA products to combat harmful agents and increase beneficial production.

There is also the question of how to grow agricultural demand in a sustainable and environmentally friendly way. The answer requires creativity and novel approaches by industry leaders, which can manifest in two ways. If we are not in tune with what's going to change, then we can't make adjustments. We also have to participate in what exists today and understand where we fit, thus ensuring we bridge the gaps.

## What are some of the key challenges facing the agricultural market and how is your company dealing with them?

There are a lot of challenges in the agricultural market; science, Mother Nature, labor and regulations to name a few. Science and Mother Nature force us to be flexible in methods of production and in how we operate our systems to get the most efficiency. It is hard to predict what might be needed next year, or even next week, as weather patterns constantly change, and with it, specific demands. Weeds, bacteria, viruses and other threats to agriculture production also evolve and require new tactics to control them. Likewise, science is constantly developing new products to combat these changes and to meet the demands of population growth. Labor, or lack thereof, is driving new methods for handling demands from the field to the manufacturing facility. We are addressing the reduction of available labor and the increased desire for data (quality and traceability) through automation. Regulators are under a bit of stress. They fear being named individually in litigation from making a perceived (or in rare cases, real) error in evaluating products, and they are also often under-staffed in critical review areas. We are building relationships to help foster this demand and improve efficiency, but we also must be careful we are not perceived as influencing the process.

# Chuck Hinton

President, Ethox

## When did you become a part of the specialty chemical industry and why?

When I finished graduate school, I worked for Celanese/FII for about three years and then became involved in Ethox in 1975. I like the smaller company atmosphere as opposed to the larger one, and it has allowed me to delve into many different areas of the specialty chemical industry as opposed to focusing on just a few.

## What is driving the market in the agricultural sector?

In taking a holistic view of the market over the last several years, there has been a tremendous amount of consolidation in the agriculture market. In the crop protection segment, the "Big 6" are now the "Big 4." The distribution channel has seen a lot of consolidation, and even at the grower level, large, corporate farms are much more prevalent. As a result, specialty chemical manufacturers involved in the agricultural sector have to be innovative, flexible and responsive to client needs. As we have seen in the last few years, those needs can change at a moment's notice based on an ever-evolving regulatory environment and end-consumer-driven pressure to provide environmentally friendly solutions to crop protection and production challenges.

## What are some of the key challenges facing the agriculture market and how is your company handling those challenges?

The key challenge in the agriculture market is how to feed a growing population with the same or fewer acres and do it in a sustainable way. Another variable to that challenge is the emergence of the bioenergy sector and the pressure to reduce fossil fuel consumption. Combine the food versus fuel challenge with the need to have a more efficient use of water and renewable resources, and we all have a large task ahead of us. By most accounts, the world population in 2018 is approximately 7.2 billion with a projected population of 9.6 billion by 2050. This increase will be attributed to large population growth in developing countries and increased life expectancies in the world as a whole. In order to meet the growing demand for food in that timeframe, most experts agree that the number of acres will need to increase, yield per acre will need to increase, or a combination thereof. We are doing our best to partner with established, forward-thinking companies in each segment of the market to use our surfactant technology to drive innovation and improve efficient use of water, herbicides and fertilizers. In any given year, the United States and Brazil are the two largest agriculture markets in the world, and we feel like we are uniquely positioned to help with those challenges.

## We understand the agricultural side of your business has seen significant growth. Are tolling partnerships particularly advantageous in the agricultural chemical arena? If so, why?

We've been very fortunate to have experienced better than expected growth in the agricultural segment over the last few years. Based on the factors above and market dynamics in general, we have every reason to be cautiously optimistic about robust growth in the foreseeable future. With consolidation occurring at every level of the supply chain, tolling partnerships are more important and critical than ever before. Short lead times and a constantly changing regulatory landscape make it imperative for successful companies to partner with toll manufacturers that have economies of scale and expertise in a given field. As a company, we have to make sure we maintain focus and try not to be all things to all people, but rather focus on our core competencies and apply those to the challenges we face.

Chuck began his career in the chemical industry in 1973 at Celanese/FII as an R&D chemist. He joined Ethox in 1975, where he worked in technical sales. After 15 years, Chuck became Vice President, and in 2008 he took the reigns as President. He has been active in SOCMA since 1989, and served on the Board of Governors from 2008-2015. He received his bachelor's degree in chemistry from West Georgia College in 1969 and his Ph.D. in chemistry from Clemson University in 1973.

# Jesús Cantú

VIAKEM

Jesús Cantú has more than 30 years of experience in the agricultural industry. He started his career in Viakem S.A. de C.V. (formerly PYOSA) with technical sales and then planning responsibilities. He spent eight years in marketing and business development before taking on the role of Business Director of the Agro Fine Chemical Unit in 1999. In this role, Cantu positioned the company in the custom and contract manufacturing agrochemical market. He became Chief Operations Officer in 2016.

## Chief Operations Officer, Viakem

## When did you become a part of the specialty chemical industry and why?

In the late 80s, the Mexican economy was closed, and the main focus was on the internal market. Then, suddenly, the Mexican economy opened, and many companies were exposed to outside competition. I was engaged in marketing activities, and our company had competitive capabilities to offer in the global arena, so I started exploring outside markets like the United States and Europe. I found a fascinating industry and a great field to find and develop opportunities.

#### What is driving the market in the agricultural sector?

I see three vectors that are driving the sector. They include:

- 1. The need to have efficient crop protection products that maximize crop yields;
- 2. Environmentally friendly technologies that keep our world green and our food safe, and
- 3. The need to perform the above with economic sense.

As more complex chemistry is now available, at Viakem, through process development and engineering, we have been transforming our operations to be more efficient, having better technologies with competitive costs.

#### What are some of the key challenges facing the agricultural market and how is your company dealing with them?

Some of the greatest challenges are the fact that global companies are consolidating, the availability of raw materials, and structural changes in the world trade agreements.

At Viakem we have strengthened our communication with customers, not just from the marketing approach, but also from the technical front. We have increased our presence in Europe and North American markets, and those activities are paying back with great opportunities. We have been offering a "one-stop-shop" to our customers, performing more chemical steps, and we have implemented strategic integrations to have a better control of the supply chain. We have also become experts in our knowledge of free trade agreements, so we can take all of the advantages that favor our customers.

## How will changes in the new North American Free Trade Agreement (NAFTA) deal impact your company and the agricultural sector?

Formerly NAFTA, now USMCA (United States – Mexico – Canada Agreement) is a key factor for our business. It makes our products more competitive compared to other regions, and our U.S. customers have a direct economic benefit paying no duties. Our supply chain has a direct benefit, and one of our main end-markets is the U.S. When our customers export their finished products, they become more competitive. We have an integrated supply chain with them.

A positive impact was the way the Rules of Origin were set. The chemical reaction rule means that chemical steps performed in North America are considered regional products. Therefore, companies in the U.S. will enjoy a better economic position when acquiring products from Viakem.

## What is a key trend to keep an eye on and how do you see it impacting the industry?

The agricultural sector is always impacted by two factors: weather and pest pressure. There is not much we can do about that. We just need to

### [ DAVE MIELKE ... continued ]

ChemDesign partners with leaders in the industry on the toll side, as well as the raw material and waste aspects. There is cradle to grave ownership in specialty manufacturing, and it is a requirement for a reliable toll manufacturing platform to be involved in trade associations and other support groups to be aware of new regulation, best practices and develop a network of smart people.

As manufacturers, public opinion can stress our operations. It is our role as industry leaders to be responsible, educate our communities, and improve political awareness in what we do and how we do it safely...and why it's vital to the quality of life the consumers enjoy.

#### What is a key trend to keep an eye on and how do you see it impacting the industry?

The emergence of increased environmental regulation in China has begun to impact supply chains. This may lead to more reshoring of materials to North America and Europe. It will be interesting to see the dynamics unfold with onshoring and tariffs as it will reshape the market.

### [ JESÚS CANTÚ ...continued ]

realize those factors are there, and we have to deal and react to them with strategies that help us meet our goals. Some things to keep an eye on are:

- Environmental regulations Our industry is highly regulated, and it is key to follow the trends, as some of the regulations may affect your operations. However, we have learned that regulations bring new opportunities to improve processes and become more competitive throughout environmentally friendly technologies.
- Commodity prices If farmers are not economically secure, the chemical industry will suffer as well.
- Global inventory levels The agricultural sector has very long supply chains, therefore, it is difficult to react on short notice. It is key to follow the inventory levels of raw materials and finished products because the market needs can increase or decrease dramatically, and it takes a long time to adjust.

## [ CLINTON BEELAND...continued ]

## From a regulatory standpoint, how is FIFRA and other key EPA issues impacting the agricultural sector?

EPA and FIFRA are under a lot of stress. We have perhaps the best review process in the world and a lot of very good people. However, many of the systems and processes in place need updating to improve the speed while maintaining high integrity and trust. We need the review process, and the public demands it. We just need it to be more efficient and eliminate bureaucracy that does not create detriment to the outcome. There is a win for everybody. We don't want to be in a place where we have a solution, but we can't get it approved. With changes in the world supply chain, particularly in China, and the U.S. gain in energy supply, it is even more important.

## What is a key trend to keep an eye on and how do you see it impacting the industry?

The past two years a lot of mergers have occurred in the industry, especially among the largest corporations. Short term this is creating a need for additional outsourcing due to changes in focus, capital constraints and a juggling of portfolios.

In the past two years a number of mergers have occurred in the industry, creating short-term threats. The tariffs are just now getting set up, and we are getting our heads around which products are impacted and which aren't. As a result, several companies are now looking at formulating in the U.S. because formulated products that are produced in China are being impacted by the tariffs, and the active ingredients are not. That is a positive for us. The 2025 initiative is also causing people to rethink their supply chain as well as alternative production sites. The China 2025 initiative has already caused our company not to make one of our products for four months due to the mandate that China will produce 25 percent fewer pesticides by 2025. Fortunately, our customer was able to find an alternative source, but it took four months to do it. That is the biggest impact we've had based on China thus far.

Longer term there are three big trends in the industry to keep an eye on (excluding genetics), and all three are driven in some way by data.

- Precision Agriculture Precision farming may well reduce the amount of chemistry used in the field, however, it may increase the complexity of the chemistry and formulations as well as the number of compounds used.
- Biologics/Nutrition We are learning more about the biological makeup of soils, plants, and the general eco system and what is beneficial and what is not. Cataloguing this information and turning it into a useful tool for the industry is coming in the next 10 to 15 years. It will dictate many of the chemistries and biologics used in the future.
- Public Information/Misinformation We live in a world of information and in many cases misinformation. The public will continue to demand information and data. This will be no less true in food supply. Trustworthy supply of this information in terms that are understood will be critical. Our materials will be a part of that information chain.

## [ CHUCK HINTON ...continued ]

## What is a key trend to keep an eye on and how do you see it impacting the industry?

I think one of the really exciting trends to keep an eye on in the agriculture industry is the evolution of information technology, precision agriculture and data management. A number of major players have made large investments in these platforms, and it is a constantly evolving pursuit. When a company or groups of companies refine the use of those technologies in each segment of the agriculture market (from planting and crop inputs to harvesting and marketing crops), the results will be astounding.





