






CJB INDUSTRIES: CHEMICAL MANUFACTURER ENHANCES EFFICIENCY AND QUALITY WITH AI

ABOUT CJB INDUSTRIES, INC. - GIL HARBIN. Georgia Tech alumnus Clinton Beeland always aspired to have his own business. After working in chemical manufacturing for several years, he realized a need for tolling in the pest control industry and started a contract chemical manufacturing company in 1997. Today, CJB Industries has approximately 200 employees and three facilities totaling 361,500 square feet in Valdosta, Georgia. They offer custom formulating, milling, blending, filling, packaging, warehousing, and logistics for diverse markets, including the agricultural and pest industries, and have become known for their exceptional customer service and milling experience. They have also participated in the ChemStewards environmental, health, safety, and security management program, received ISO 14001 and 9001 certifications, and registered their facilities with the U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act.




THE CHALLENGE. As CJB Industries has continued to grow, they have engaged Georgia Manufacturing Extension Partnership (GaMEP) at Georgia Tech, part of the MEP National Network™, through various events and projects in the past 13 years. In early 2022, Mitchell Tatar, CJB Industries process engineer and Beeland's daughter, collaborated with Sean Madhavaraman, GaMEP Industry 4.0 project manager, and Olivia Pitts, GaMEP quality management systems project manager, to achieve better operational efficiency and quality.

MEP CENTER'S ROLE. Tatar, who has experience with data, knew the company needed to start collecting information so they could better identify opportunities for improvement. In March, she asked Madhavaraman to assist with historicizing their data. Madhavaraman helped schedule and evaluate interviews with software companies. After CJB Industries selected dataPARC, Madhavaraman guided the implementation process. The real-time data analysis and visualization not only allowed them to optimize their manufacturing process, but it also provided them with opportunities to grow. In June 2022, Tatar also asked Pitts to evaluate their quality. Pitts conducted a three-day assessment, interviewing operators, observing production, reviewing documentation, and provided an action plan with process improvement opportunities. Pitts suggested a new quality management software (QMS) that facilitated different communication. With more than 200 diverse customers, employees exhausted numerous hours processing printed batch sheets that included non-standard client data every week. Madhavaraman knew of an Advanced Technology Development Center startup company with AI capabilities. CJB Industries and Vieaura began working together to test using generative AI to automatically compile the unique customer information into a standard format. Tatar expects to convert their printed batch sheets into automated digital workflows in the next few months, which will positively impact their culture and quality.

RESULTS

-  Implemented data software, a **\$300,000** investment across two facilities
-  Enhanced preventative maintenance, saving **\$30,000** per month by preventing a chiller breakdown
-  **20%** increase in production capacity
-  Replaced the QMS, reducing price of non-conformance (PONC) by **51%**
-  Started training the AI software, which will convert printed batch sheets into digital workflows

CONTACT US

-  Georgia Tech
75 5th Street, NW Suite 3010
Atlanta, GA 30308-0640
-  (404)894-4633
-  gamep.org



"GaMEP is a great asset for short-term and long-term goals. They help you think about the future and align yourself to reach those goals."

-Mitchell Tatar, Process Engineer