



## The Delaware Department of Agriculture Compliance Laboratory Achieves Success with Sample Master® LIMS

ATL provides all the software tools needed for a complete data management solution.

### Organization Profile

The Delaware Department of Agriculture Compliance Laboratory serves the Delaware Department of Agriculture's mission of sustaining and promoting the viability of food, fiber, and agricultural industries by providing analytical testing services for feeds, fertilizers, lime and manure samples. Additionally, it provides verification testing on products that customers submit for testing such as the protein, fat and fiber content of a pet food.

### Their Challenge

Following an internal assessment of the Laboratory Information Management System (LIMS) and software tools used to meet the needs of its customers, the laboratory management team determined that they needed to make some changes. Laboratory team members were using too much time to search for data, respond to transcription errors, re-enter instrument data into the LIMS, manually create final analysis reports, and deal with LIMS workarounds for missing functionality by leveraging Excel sheets. In addition, they manually managed product registrations; analyzing the products, manually checking the product labels and associated specifications and preparing the certificates, collecting and processing credit card information or checks, and fielding customer inquiries. These manual work processes limited the efficiency and throughput of the laboratory and its staff.

The incumbent LIMS was over 10 years old, and the lab thought it had limited functionality, few updates, and poor support by the LIMS vendor. Many features that were critical to the success of the laboratory were lacking, so the decision was made to search for a new configurable LIMS that could meet the needs of a modern agricultural laboratory, with minimum customization. The list of mandatory requirements for the new LIMS included: a configurable LIMS that could interface with their instruments, manage their specifications and generate reports automatically to send via email. Additionally, the team wanted a system that they could manage on their own, rather than calling the vendor to make field name changes, create new workflows, or manage/modify existing reports.

Another principal requirement was a secure web-portal that would offer clients perpetual access to submit samples and pay for testing. The lab's customers demand convenience, fast turnaround, and accurate test data; however, the lab did not want to provide external clients access to their LIMS database. A secure web-portal would ensure that customers received up to date information on only validated and approved results. Ideally, they were searching for a self-service system that would allow customers to view their own results, upload scanned labels and submit credit card information; thereby reducing calls to the laboratory and limiting the need to send reports. Additionally, the team was searching for a tool that would allow field collectors better connectivity to the laboratory and enable field data to be sent to the laboratory in real-time.



<https://agriculture.delaware.gov>  
Dover, Delaware



## Our Solution

Following multiple LIMS product demonstrations, evaluation of LIMS functionality and reference checks, the laboratory chose Accelerated Technology Laboratories, Inc. (ATL) as their LIMS partner. As part of their due diligence, the laboratory team sought vendors that were ISO certified. This international certification requires regular external audits; ensuring that the LIMS vendor has an implemented quality management system that is verified by a certified outside agency. The IT team was included in all meetings and performed their due diligence on product architecture and alliance with modern software technology. Once the decision was made to implement Sample Master® LIMS, the ATL team worked with the Delaware IT and laboratory project teams to plan the work required to complete project. There were many aspects and considerations, as the scope of the project did not include simply replacing the incumbent LIMS. Static data was migrated, Sample Master was configured, implemented and deployed, key instruments were interfaced and LIMS Administrators and End-users were trained. Additionally, a web server for iMobile® was configured to allow for connectivity with smart phones and tablets used in the field; and Result Point®, a secure web portal by which customers could do business with the laboratory at any time, was implemented. This created a complete, cohesive system supporting all the needs of the laboratory team.

The deployment of Sample Master LIMS allowed the lab to have a modern full-featured, easy to use LIMS. The ATL team helped reduce the learning curve by teaching the LIMS Administrators to use their internal terminology to configure Sample Master screens; they were live within 4 weeks of initial installation. Key instruments were interfaced and the benefits of the integration were numerous. Highly trained chemists were no longer keying in instrument data, and manually checking what they typed into the LIMS. With Sample Master, the instrument output file are seamlessly uploaded; eliminating transcription errors and decreasing the time required to provide end-users with results. This allows the chemists to focus on the analytical tasks at hand and not spend time on mundane tasks. In addition, the ATL engineers also created over a dozen reports specially designed for them. These reports included: official and submitted Feeds, Pet Food, Fertilizer, Liming Material, Frozen Dessert, Poultry Manure, Check Sample Feed and Fertilizers, DDA Manure Data Report, Login Data, Turnaround Time Report and numerous Financial Summary Reports. All of the reports could be automatically created, printed or converted to PDF and emailed.

Another significant area of improvement for the lab is the elimination of the paper forms on the website for the customer portal. ATL's development team was tasked with taking all of the paper forms, converting them to web forms and integrating with the state's vendor credit card system. Customers can now upload a scanned nutritional label to their web portal. The laboratory can now electronically review the scanned labels and verify the accuracy of the nutritional information and either approve or reject the application, all on-line. Additionally laboratory staff is no longer responsible for manually collecting, processing and managing requests, associated labels and paper forms, or credit card information; as customers can handle their own payments securely, on-line. The Result Point secure portal has resulted in a tremendous time savings for the laboratory team, along with higher customer satisfaction.

*Accelerated Technology Laboratories (ATL), headquartered in West End, NC, provides laboratory automation solutions to a variety of industries from analytical, environmental, food & beverage, water and wastewater, agriculture, cannabis, chemical, government, public health, biotechnology, clinical testing and manufacturing. ATL's LIMS products are installed in over 600 laboratories around the world and supported by a steadfast commitment to excellence in product quality, support and training. ATL is one of the few LIMS providers that is ISO 9001:2015 certified. For additional information, visit: [www.atlab.com](http://www.atlab.com).*

