



Modernizing Agricultural Trait Development with a Configurable Digital Platform

A leading Ag-Bio company focused on advancing crop innovation turned to L7 Informatics to modernize its approach to tracking, managing, and scaling trait development programs. With operations spanning multiple plant species and an expanding product pipeline, the organization needed a flexible digital foundation to streamline workflows, support automation, and empower teams across science and operations.

WHEN SYSTEMS CAN'T KEEP UP WITH SCIENCE

The company's previous LIMS was no longer meeting the demands of its complex and expanding R&D and production pipelines. With multiple crop species in play and increasing production demands, the team needed more than just a database. It needed a platform that could grow with their evolving science, support large-scale data tracking from seed to regeneration, and remain intuitive for both technical and non-technical users.

Its previous system lacked the configurability to model the full trait development lifecycle, making it difficult to capture key data points across greenhouse stages, tissue culture, and sample screening. The organization also faced challenges integrating data from automated systems and preparing for the anticipated increase in throughput as new lines were added. It was clear: continuing with its existing tools would slow its momentum. The team needed a system built for scalability, speed, and science.

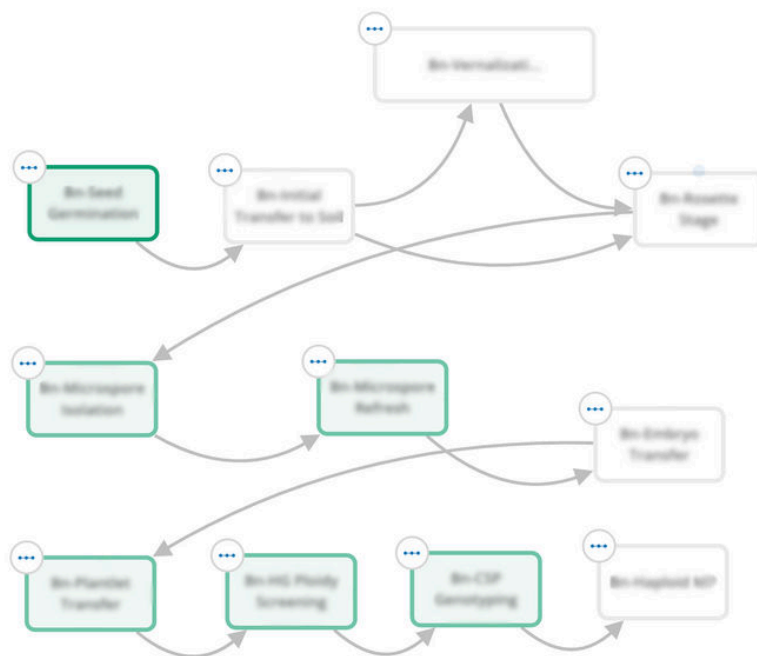
LAYING THE DIGITAL GROUNDWORK FOR SCALE

Working with L7, the organization implemented L7|ESP to digitalize and track plant tissue lines across the full

crop production cycle—from greenhouse growth to sample screening and regeneration. The initial rollout delivered three key workflow chains, designed to manage priority crops and bring structure to their trait development process.

As the organization grew more confident in the platform, it expanded its use beyond the original scope. Internal teams began building custom workflows tailored to other crop types, embodying the “citizen developer” model that L7 empowers. What began as a vendor-supported implementation quickly transitioned into a self-sustained model, with internal staff leveraging L7’s low-code tools to develop their own digital processes.

Today, the platform supports real-time integration with internal automation systems and data collected at scale from multiple stages of production. The organization also adopted L7 Notebooks to streamline documentation and regulatory readiness for experiments and data collection processes.



WORKFLOW CHAIN INTENTIONALLY BLURED

EQUIPPED TO SCALE + EMPOWERED TO MOVE FASTER

The shift to L7|ESP has delivered both immediate and long-term benefits for the organization’s R&D and production teams.

- **Configurability:** The platform’s low-code tools allowed the company to rapidly design and deploy new workflows across species.
- **User Experience:** Non-technical end-users can easily access and interact with data, reducing training time and errors.
- **Scalability:** The system now supports high-throughput sampling and data collection across thousands of plant lines.
- **Automation Integration:** The organization can now ingest results from robotic systems directly into their digital workflows.
- **Empowerment through Ownership:** Teams can now create and modify workflows independently, without needing external support.
- **Regulatory Readiness:** With L7|ESP, experiments and records are centralized, searchable, and audit-ready.

As the science of this leading Ag-Bio company moves forward, so does the L7|ESP platform—positioned to support today’s workflows and ready to expand into areas like manufacturing systems, if and when the time is right.



1219 West 6th Street,
Austin, TX 78703 USA
+1 888 461 5227
info@L7informatics.com

L7INFORMATICS.com

L7 Informatics reimagines data intelligence for modern life sciences and healthcare organizations. Beyond simple data management, L7 provides tools that optimize the flow of information between processes and people, unlocking innovation at every stage of the clinical, research, and manufacturing value chains.

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