

InfoCepts Empowers a Global Agricultural Bio-Technology Giant with a BI and Metadata Search Engine to Augment Its R&D Efforts



Summary

We helped a global hybrid seed producer give easy access to its intellectual research assets and knowledge for the benefit of its R&D scientists, plant breeders, managers and C-level executives. The result is a Google like search engine that intelligently sifts through tons of data to find associations between different search concepts in plant genomics and field experiments.

Industry

Agricultural Bio-Technology

Users

R&D Scientists, Plant Breeders, Managers and C-Suite Execs

Technologies

MicroStrategy, AngularJS
Sphinx Search Engine

Team Size

14 InfoCeptions, 4 Customer Associates

InfoCepts Accelerators or Assets Used

InfoCepts' BI and Metadata Search Engine

→ The Challenge

Our client, a multi-billion dollar biotechnology giant that specializes in producing agricultural products, wanted an efficient query engine that would give users access to its exhaustive research data through an intuitive user interface.

The main driver for this initiative was the need to better serve their key stakeholders which included R&D scientists, plant breeders, managers and senior executives. The goal was to create a system that would aggregate data around research concepts for these stakeholders in a quick and efficient manner to facilitate their R&D efforts.

The biggest challenge from an R&D perspective was to go beyond traditional reporting systems that only give what is asked of them. They needed a solution that would provide their stakeholders access to all relevant data around a specific entity. Of utmost importance was the need to deliver related facts about entities which our client's stakeholders were previously unaware of.

→ The Solution

InfoCepts' solution development team concluded that the best way to fulfill the client's requirement was to develop an intelligent search engine on top of the MicroStrategy platform. For this purpose, our team used the open source engine Sphinx as it works better with the existing architecture as compared to other options such as Lucene, Solr etc. The front end of the solution was created using AngularJS.

In line with the client's need for enabling search and aggregation of research topics for its stakeholders, InfoCepts' search based solution provides the following –

- Ability to search "Research Data Warehouse" data spread across 40+ MicroStrategy reports and beyond
- Ability to index close to 700 million data rows within 35 minutes
- Google like search interface that enables users to quickly search through data indexed by the Sphinx search engine. The search output contains rows with terms from database tables or from MicroStrategy reports that match the search string
- Clickable links to each instance of the search term in the Data Warehouse. Users can click on these links to view the complete dataset – whether it is in database table or MicroStrategy report

→ The Results

The new search based solution can effortlessly sift through data based on the search terms entered by the R&D scientists to produce holistic insights on any topic or entity.

It provides business users an efficient and easy way to query and access information about key research entities and concepts that are used for analysing the life cycle of experiments and formulations. Benefits to the customer include –

- Enhanced abilities of business users to comprehensively explore the entire Data Warehouse and Business Intelligence environment without IT intervention
- Google like search functionality that loads records in seconds to let users sift through complex data providing ultimate ease of use
- Auto-complete suggestions are available as user types in the search text
- Faster onboarding of new teams and new members by cutting down time required for full scale introduction to database schema and Business Intelligence report inventory