

## CASE STUDY



**Xelocity demonstrates a feasible and efficient solution for Nufarm who was forced with challenges in production planning that simply wasn't working!**

### THE CUSTOMER

- Major agricultural chemical company based in Melbourne, Australia
- 2100+ product registrations for markets in more than 100 countries.
- Global sales about AU\$ 2 billion.
- Publicly traded in Australian Securities Exchange



### BUSINESS CHALLENGES

- Oracle JD Edwards has been implemented as the company ERP.
- Production & Distribution Scheduling (PDP) is used for manufacturing planning.
- PDP did not respect Nufarm's unique constraints and realities.
- Current production schedule was not feasible and required intensive re-planning in order to make it usable.

### XELOCITY SOLUTION

- Identified root causes and reasons the current scheduling and planning process were falling short.
- Demonstrated a constraint-based production scheduling solution
- Ensured that Nufarm's unique constraints and business practices were respected in the proposed solution
- Proved that feasible production plans were a key output from the proposed solution
- Introduced Oracle JDE Production Scheduling as an add-on to the PDP module
- Reiterated the importance of Demand management, Sales & Operational Planning as a key component of getting Supply Chain Planning right
- Stressed the difference between Tactical & Production Planning.

### ROI / BENEFITS

- Constrained Planning allowing faster reaction time to unforeseen real life events.
- Ability to do what if analysis with the tools before publishing to ERP system.
- Departmental views available for the various section of the manufacturing operation.
- Time available for staff to direct their efforts into better managing the plans rather than creating an optimal plan.
- Production processes documented and planning rules now documented rather than planner's 'intellect'.



**XELOCITY**  
Powerful Business Results





## CASE STUDY

**Xelocity demonstrates a feasible and efficient solution for Nufarm who was forced with challenges in production planning that simply wasn't working!**

### PROJECT SUMMARY

Nufarm Limited, headquartered in Melbourne, Australia, is one of the world's leading agricultural chemical companies with global sales of about AU\$2 billion. It has been listed in Australian Securities Exchange since 1988. Nufarm currently holds more than 2,100 product registrations and markets products in more than 100 countries. Within Australia, Nufarm has invested in more than \$500 million in Australian agriculture, including manufacturing facilities in three states, national research and development programmes, and 10 service centres throughout Australia. Nufarm employs some 700 people across its business and regional centres throughout Australia.

To maintain and improve operational excellence is Nufarm's ongoing objective. To this end, Nufarm has implemented Oracle JDE EnterpriseOne as a company wide ERP. The Production and Distribution Planning (PDP) module is used to facilitate manufacturing planning and distribution. For all the benefits of PDP, Nufarm's unique and complex multi-stage batch sizing practice, inherent in process manufacturing, is beyond the technological capabilities of PDP. Therefore, the production plan generated by PDP was infeasible and required significant manual planning before it could be used at the shop floor. This considerably increased cost and decreased accuracy and efficiency. Manufacturing was faced with a host of challenges on a daily basis due to this deficiency. For example, raw materials could run out during production, or the plan would not respect the size of the formulation tanks that was necessary for production efficiency & optimisation.

Xelocity proposed a constraint-based solution to the deficiencies in the production planning process. Working closely with Nufarm staff, Xelocity consultants first built a solid understanding of Nufarm's current manufacturing practices and system implementation. Based upon this understanding, Xelocity consultants advised that Nufarm's business realities of continuous flow and multi-stage batch sizing were outside the scope of current implementation of PDP. Thus a different tool would need to be considered (even as a black box) in order to provide the results the business needed to gain the superior advantage it was looking for..

Xelocity consultants introduced Oracle JDE Production Scheduling (PS) to Nufarm management. Using PS, Xelocity consultants were able to build a proof-of-concept model that simulated Nufarm's process-oriented manufacturing practices. This proof-of-concept model ensured that constraints such as multi-stage batch sizing and continuous flow were respected along with constrained production for the short term planning. With many years of experience in modelling and optimization, Xelocity consultants found the best match between business practice and technological capabilities. Focused on the existing business operations, the model delivered feasible production plans, not only for short-term execution, but also for medium-term planning. The short-term plan was down to the minute and would greatly reduce human cost and increase efficiency at the shop-floor level. The medium-term plan would serve as a bridge to link detailed shop-floor realities with wider supply chain planning activities such as demand forecasting, Procurement planning. This opened doors to further integration with the wider ERP system.

Throughout the engagement, Xelocity consultants coordinated closely with Nufarm staff which ranged across business, manufacturing and IS departments. The effective coordination was an important success factor in this exercise.

Nufarm management has been highly satisfied with Xelocity's proof-of-concept and has thus decided to have a full-scale implementation of JDE Production Scheduling.

### CONTACTS

**XELOCITY:** [www.xelocity.com/](http://www.xelocity.com/) [info@xelocity.com](mailto:info@xelocity.com) /+64 9 363 6700

**CLIENT:** [www.nufarm.com.au](http://www.nufarm.com.au)