

Preactor APS the Most Appealing Solution for Leading UK Potato Supplier



Solanum is one of the UK's premier suppliers of potatoes with a reputation gained by providing quality and value for more than 60 years. A division of the £240m turnover ProduceWorld Group, Solanum is based in Sutton Bridge at the former headquarters of the Potato Marketing Board and supplies 57,000 tonnes of potatoes each year to the major UK high street retailers. When the company decided to completely review and overhaul its entire approach to production planning and scheduling, it did so with the help of Preactor.

The process steps involved at Solanum are relatively straight forward. The company receives orders on a daily basis which may or may not correspond to a long range sales forecast and need to be supplied on either a same day or next day basis. Potatoes are size graded by variety before being washed, packed, labelled and dispatched. However, as Operations Director Darren Mortimer explains, the reality is complicated by a range of factors which create some challenging business issues. "While dealing exclusively with potatoes we handle in excess of 27 different varieties which with all the packaging permutations add up to approximately 140 possible SKUs. Order sizes range all the way from a single case which might be 6kg up to over 4500 cases which might be 10 tonnes upwards."

Then there is the challenge of managing the source of supply. 80% of all potatoes used are grown in the UK while 20% are imported and all need to be harvested at the correct time and appropriately conditioned. This can be on or off-site depending on the type of potato and the facilities of the individual growers that Solanum work with. Planning and Logistics Coordinator Rob Callaby adds another level of perspective. "While we harvest every year, many of our varieties need to be planned 3-5 years ahead in terms of a viable growing and harvesting cycle. It also goes without saying that the actual yield of any particular crop may differ significantly from anticipated yield for a number of reasons including growing & harvesting conditions." "There is also the issue of sensitive crops" adds Mortimer. "One of our key challenges is to maximise the usage of every crop throughout the entire supply chain. It clearly has an impact if 15% of a shipment is bruised as opposed to only 5%."





Because of the inherent complexities, Mortimer describes the company at the time he joined it in early 2007 as relying on recent order history to predict demand over a very short time horizon and then often simply producing what could physically be produced in any given shift. This was not solely due to the ready availability of the raw ingredients; it was also due to the difficulties in managing the efficient use of

the company's resources at both a machine and a human level. Whereas four of the company's production lines can manufacture 70% of SKUs, the remaining four lines can only manufacture the remaining 20%. Mortimer again, "Ideally each line needs to be optimally used but this is hard to plan at the best of times as up to 25% of the potatoes processed through the production line are not of an acceptable quality, and are graded out on line, prior to packing which obviously influences the actual time that a line is physically working on a particular order."

Even when an order is complete and in cold storage prior to dispatch, there can be complications because bruising which may have occurred during the packing process may only show several hours later. If this is the case, the affected packs cannot be dispatched and the shortfall needs to be made up, which of course impacts the rest of the flow. To cope with the fluctuations in peak activity in the normal course of



production the company has to ensure either that appropriate levels of staff are present on site at all times or to utilise short term agency labour which can be costly. Other key challenges include the Christmas period where demand typically doubles, before returning to normal levels, however predicting the point at which demand drops is difficult for retailers and suppliers and this can lead to excess product in the supply chain. Maintenance, both planned and unplanned, is a vital consideration for the smooth running of the entire operation, as is maximising the use of delivery capacity of each of the 15 lorries which leave the company every day.

Mortimer describes the company's planning prior to investing in Preactor as "individual production line focused, as there was an absence of a factory wide planning culture." A failed in-house planning software application hadn't helped at all and planning was literally down to the experience of a few key personnel and a general culture of assuming that most people knew what needed to be made most of the time. As Callaby recalls, "We had no production planning systems or spreadsheets. Orders would be issued to the production teams in their raw format and they were left to produce to the order as best they could, this would be complicated by the fact that some production runs had completed before the order was issued." As each line team worked on their orders in

isolation it was not uncommon for some lines to over achieve and some to under achieve in a shift, however because of the lack of visibility of what was being made where and when, there were no means of spreading the load more effectively. The result could either be a failure to finish an order in time to meet its load and dispatch slot or significant amounts of over-packing. The former would lead to contact with the customer to agree a delayed delivery time, and the need for extra third party haulage at a cost to Solanum, while the latter had significant cost implications in unpacking and disposal.



The catalyst for change was a review of the order and planning process with input from a number of key individuals. This was supported by Nicola Bingham, the then planning manager, who had extensive knowledge of Solanum's demand profile, and the experience of a previous attempt at implementing factory wide planning. This was coupled with Mortimer's understanding of demand led planning models and experience of effective and efficient planning strategies, even though

Solanum was essentially a Make to Order (MTO) environment while his previous roles had been in Make to Stock (MTS). His first impressions were vivid. "There was a system in place, however no one really knew how or why it functioned and it was impossible to gain a holistic view of progress against demand at any time. This needed to change, and quickly, as the business was reliant on a few key individuals, and their experience, plus the fact we were not utilising our resources efficiently at all"

This led to Mortimer and Bingham drawing up a comprehensive list of requirements for an ideal production planning and scheduling solution that would fit the company's needs. Four solutions providers were then approached with this list and their offerings assessed which reduced the list to two. Further investigations were made with site visits being taken with each supplier. In the end Preactor was the clear winner for offering the best combination of value for money as well as the best levels of service and support.



Mortimer again, "Preactor had the visual look and feel that our Planning Manager wanted as well as a very easy and intuitive user interface via the Gantt charts. I was impressed by the combination of functionality and flexibility of the product but also by the fact that Preactor had a clear and demonstrable track record in the food and beverage sector. We liked the service levels that Kudos could provide not just in the short term but also on an ongoing basis should we need to do any further work with the system."

Implementation commenced shortly afterwards and was helped by Solanum already having a complete breakdown of all of the relevant process and production data from its earlier failed system. This was handed over to Kudos Solutions who used it to develop all the appropriate planning rules and within two months, Solanum was generating what Mortimer describes as “relatively robust production plans,” adding “Credit for the smooth implementation of Preactor rests with Nicola (Bingham) and Kudos. An excellent working relationship was formed and any obstacles were soon overcome” More importantly, Preactor was serving as a catalyst for changing the entire planning culture in the company, as current Planning and Logistics Co-Coordinator Callaby explains. “While it took a further 2 months, the plans became increasingly more accurate which meant that people began to trust the results Preactor was generating. Yes, we actively had to wean some people off the old ways of doing things but this was made easier by opening a dialogue with the end users of the plan, the guys on the shop floor. Their input into how the system should run was actively sought and when people began to see that their ideas were not just being listened to, but acted on when appropriate, it helped achieve a great deal of buy-in to the system.” This is still ongoing with the company now investigating maximising the use of set run orders.

In addition to the helping facilitate this cultural change; Preactor in conjunction with other initiatives and improvements has helped deliver a broad spectrum of benefits for Solanum, not least an improvement in resource efficiency of 5%. In terms of human resource, whereas the company had 5-10% spare resource at any one time, this has now been reduced to zero and led the company to reduce reliance on the use of costly short term agency staff.

Preactor, at the heart of Solanum's planning process, has provided the foundation to help facilitate the development of individuals and production teams through the sharing of increased responsibility and accountability by reducing daily fire fighting, leading to further time to focus on continuous improvement.. Because of the increased visibility and accuracy of what needs to be packed, and when, over-packaging has been reduced significantly with half of this being directly attributable to Preactor. Special deliveries due to orders having missed their loading slots have been reduced from an average of 3 per month to less than 1 a month which not only represents a real cost saving but also an improvement in customer satisfaction levels.

Such is the increase in confidence and accuracy that Mortimer says the company now routinely hits 95% or more of the plan each day and this confidence has impacted other areas of the business. The new planning process has helped facilitate a move to a Four On/Four Off shift pattern, something Mortimer says would have been completely impossible before. It has also helped make the process of manufacturing new products more robust, because it requires a level of key information in order to plan the production, and at Solanum if it is not planned it is not made. In effect this reduces time taken to get these products to market, because it is right first time which makes the company more competitive as a whole. It is no wonder that Mortimer anticipates even greater things to come when the group as a whole completes a roll-out of Microsoft

Navision as its new Enterprise Resource Planning (ERP) system. Because Preactor already has a proven link with Navision, Mortimer knows that using Preactor in conjunction with Navision as opposed to its current standalone capacity will bring more wide ranging benefits across the entire company. Which is why his concluding remarks about Preactor are so positive. "Preactor has helped transform not only the way the company operates but also its entire approach, moving us much more to a genuine demand driven business. If you took it away, we simply wouldn't know what to do without it."