Applies to:
Live Stock industries that deal with the poultry breeding and feed manufacturing processes. Poultry segment is involved in the production of day old commercial layer and broiler chicks, rearing of commercial broilers, and trading of poultry and poultry related products.

For more information, visit the Enterprise Resource Planning homepage.

Summary
Poultry breeding process includes parents farming of broilers and layers to produce the "day-old-chick (DOC)" and growing them in turn produce the broilers. Breeding Broiler/Layer chicks involves three unique production stages namely, Brooding, Growing and Laying. Each stage is notable specific to time frame say brooding is for 8 weeks, growing is from 9-24th weeks and laying from 25th week till the life span of the chick. In each of the three stages there is a need to feed chicks, need to raise the pullets to maturity and while fertile harvest their egg production. When hatched these eggs are the next generation of the cross-bed chicks. The final products of this process—are the broilers marketed to the meat industry and the market. The layers are sold to the farmers which again go through the distinct stages and produce table eggs that are available in the market.

During these stages distinguished parameters are maintained to produce real good chicken. An example would be the daily/weekly decision of feed ration for the breeding flock which is dependent on the following inputs- daily mortalities for veterinary surveillance, water/ feed consumption ratio, monitoring daily number of eggs laid and calculating average egg and body weights. The hatch able eggs collected from farm are transferred to hatcheries wherein the eggs are kept in setters for about 18 days, then placed in incubators for 3 days to get the DOC(day-old-chick). This DOC is sent to the contract farms and grown for about 6-7 weeks, until their processing for meat market. Once the broiler flock has attained an optimum weight it is sent to the processing plants (slaughterhouse) where culling takes place.

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Created on: 30 October 2008

Author Bio
Murthy Chaturvedula has three plus years of SAP-PP and QM experience with two end-to-end implementations under his belt. He has profound comprehension of various functional and procedural areas including Product Costing and other Production Process.
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Introduction

- **Feed Manufacturing**- Constitutes the production of variety of feed (starter, pellet, crumble feed etc.) for the chicks and birds. Utmost care is taken to check the ingredient quality. The formula of the finished feed is changed in accordance with the discretion of the veterinary doctor’s at Breeder farms.

- **Brooding Process**- Parent chicks are procured and placed into the brooding sheds. During this the chicks are fed with starter feed, medicines, vaccines etc. The mortality of birds is recorded. The time span of 7-8 weeks comprise this stage.

- **Growing Process**- The birds are transferred to this stage during the 9th week and continue till 24th week. During this the birds are fed with starter feed, medicines, vaccines etc. The mortality of birds is recorded and culls are also noted. In the final phase of this stage birds also give pullets.

- **Laying Process**- The birds get productive during this stage and lay hatchable eggs. The duration of this stage is from 25th week to 68th week. During this the birds are fed with starter feed, medicines, vaccines etc. The mortality of birds is recorded and culls are also noted.

- **Hatchery Process**- The hatchable eggs are transferred from laying farms are subjected to 100% manual inspection. Hatchable eggs are placed in setters for 18 days and rejects are recorded during candling process. Subsequently, on 18th day these eggs are transferred to Hatchers and on 21st day DOC (Day Old Chick) are collected and sold to the farmers.

- **Commercial Farm Process**- DOC’s are transferred to the Broiler farms and are monitored for about 6-7 weeks till the birds attain a significant weight. These birds are called as ‘Live birds’. These live birds are then transferred to stock points and slaughters.

Supply Chain at Farms
ERP Implementation at Hatchery Industries

Value Chain at Farms

Objective
To present a case study of one of our customer’s who were into the poultry breeding and feed manufacturing process.

Business Requirement
The customer lacked overall visibility to and reconciliation of inventory management. Material inventories were common for more than one legal entity within the company, making reconciliation of material consumption per entity a huge undertaking at the end of each quarter. There were few controls over intra-company material transactions, making it difficult to follow inventory or materials from one entity to another.

Demand planning and forecasting was also an area lacking integration and enterprise-wide visibility. Unlike Layer chickens, where commitment from the farmers is registered at the beginning of the year and few changes are made, the Broiler market is entirely supply driven. There are no advance commitments from the farmers, who themselves respond to the market.

Customer set out to remedy these problems with the ultimate goal of increasing its operating margin and market share for broiler chicks in the region. To do this it needed a seamless integration of business processes within the organization. It also needed to improve information flow and inventory management throughout the organization. Being able to measure performance at each stage of the production process is critical to success in the livestock business. However, customer’s lack of integrated business processes and centralized information management system meant that critical information from various measurement points (mortality, growth numbers, and feed & medicine consumption) was neither accurate nor timely. This meant that production-related information flow to regional offices and the corporate office was unreliable, making it difficult to measure operating costs and project growth for the company. While the company knew that an integrated Enterprise Resource Planning (ERP) system would likely resolve many of its issues, it had chosen Intelligroup Asia Pvt. Ltd. to implement such a system.
Business Processes

Poultry Industry can be bifurcated into two business lines namely, feed manufacturing and poultry breeding. In feed manufacture different variety of feed (starter feed, crumble feed and pellet feed) is produced to cater the needs of the birds at different stages. The feed produced is sold to external customers and also used for captive consumption. In the case of captive consumption or the inter-company feed as it is called, is produced only when there is a requirement from the farms. The formula of the intercompany feed is changed often as per the suggestion of the veterinary doctors with respect to the environmental conditions. The poultry breeding process is explained below.

The parent birds received from the vendor are placed into different sheds. Different varieties of feed are given to the birds with respect to the age and stage of the birds. The brooding stage is for about 8 weeks and the growing stage is from 9th to 24th week depending on the breed of the bird. During these two stages the expenditure incurred on the birds is capitalized. Subsequently, the laying stage of the bird starts from the 25th week. This continues till the life span of the bird. From the 25th week the birds get productive and start laying eggs. From this stage the value of the bird depreciates every week once it starts laying hatchable eggs. The expense incurred in growing male birds should also be posted onto female birds. The entire cost of production should be apportioned onto the hatchable egg.

All through the stages the birds are fed with feed, medicines and vaccines. The mortality of the birds is recorded on a daily basis. The hatchable eggs received at farms undergo 100% manual inspections. These are then transferred to the hatcheries to produce the DOC (day-old-chick). The production process is for 21 days, in which for the first 18 days the hatchable eggs are placed in setters. On the 18th day 100% manual inspection is done to eliminate the dead germ, dead shell etc.;. This is known as ‘candling process’. The quality certified eggs are now shifted to the incubators. On the 21st day the DOC’s are pulled out from the incubators. Again the costing done is unique with respect to the breed of the bird.

Consequently, these DOC’s are either sold to the farmers or sent to the commercial farms. In commercial farms the DOC’s are fed with feed, medicines and vaccines for about 6-7 weeks till they attain an optimum weight. Then these live birds are sold to the stock points or the slaughter house where the meat processing is done.
Solution

The modules implemented were FI, CO, MM, PP, QM & SD. This implementation was typical to a discrete manufacturing industry with co-product support. Batch split valuation was embodied to study the flock wise and shed wise performance. In the case of feed manufacturing both MTS and MTO scenarios have been implemented. Many managerial accounting reports were developed to capture the process pertinent to poultry business line. An example would be to calculate the age of the bird. The flock number, considered as batch number in SAP vividly explained the performance of the flock as a whole. The sheds here represented the performance of a flock in that particular shed.

The business processes understanding and mapping in SAP were pretty challenging from the production and costing perspective.
The solution provided the customers in the Poultry segment the platform to track profits, distribution and waste. The birds were recognized as the ‘fixed asset’ and the implementation was planned to increase efficiency in the supply chain and distribution network resulting in reduced time to market and increased profit margins.

PC Quest magazine in India identified this implementation executed by Intelligroup as one of the top SMB ERP Implementations for the year 2007.

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### Flock Wise Performance

<table>
<thead>
<tr>
<th>Batch No</th>
<th>Code</th>
<th>Plant</th>
<th>Date</th>
<th>Material</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Amount</th>
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<tr>
<td>0001</td>
<td>L507</td>
<td>PND8</td>
<td>08/03/2008</td>
<td>ZR-Calcium</td>
<td>Calcium Supplement</td>
<td>550</td>
<td>KG</td>
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### Brooding and Breeding Cost Report for Flock 2013

<table>
<thead>
<tr>
<th>Batch No</th>
<th>Code</th>
<th>Plant</th>
<th>Date</th>
<th>Material</th>
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</tr>
</tbody>
</table>

**Total Costs:**

- **Feed, Medicine and Vaccine Expenditure:** 2,748,662.20

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Related Content

Intelligroup Poultry Implementation
Butterball SAP-Poultry Implementation

For more information, visit the Enterprise Resource Planning homepage.
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