More Effective Debone/Trim Systems Make Their Mark in Poultry Processing

The YieldPlus® system from Gainco helps processors maximize yields and improve product quality while measuring the productivity and performance of individual workers in real-time.

There's essentially no end in sight to the increased consumer demand for quality poultry products. But as plant facilities ramp up production to meet this growing demand, they continue to face a number of key challenges, among them:

- **Obtaining acceptable yields** – capture as much meat as possible for upgraded product instead of settling for a lower-grade product or scrap
- **Issues of product quality** – meet the high standards of customer specifications
- **Labor and productivity concerns** – make sure that workers receive proper training for deboning and trimming skills – along with avoiding carpal tunnel syndrome or other cumulative trauma disorders (CTDs) that are often the byproducts of working on debone lines
- Compensation and pay issues – the ability to accurately tie worker compensation to product yield calculations as well as throughput (e.g., pounds per man-hour that can be achieved) and product quality

Other factors affecting processors in their debone operations include optimizing the flow of production, plus the work area layout (equipment footprint) needed for efficient poultry deboning operations.

**Automated Deboning Helps, but ...**
The increasing use of automated deboning equipment in poultry processing has helped address some of the issues above, but not all of them. As it turns out, there's a trade-off between the efficiencies gained from automation and product quality, which can suffer with automated solutions. As a result, many processing plants choose to employ a variety of methods for producing deboned poultry products resulting from the best combination of processing speed, product quality and use of labor.

An increasingly popular alternative is investing in a debone/trim management solution such as the YieldPlus® system. Developed by Gainco, YieldPlus is a solution that addresses all three main factors of greatest importance to poultry complex managers: maximizing product yields; improving product quality; and being able to measure and improve performance at the individual operator (micro) level as well as at the macro level.
How Debone/Trim Management Systems Work to Maximize Yield

Debone/trim management systems like the YieldPlus bring together intelligent product distribution and real-time key performance information (KPIs) to deliver actionable data that processors use to improve the worker productivity.

The fundamental functional components of the system include:

- An intelligent distribution system delivers and keeps track of each product batch (such as breasts, whole legs, thighs and drumsticks) to each operator.
- Ergonomically designed work stations, equipped with adjustable platforms, allow operators to work efficiently.
- A scoreboard displays continually updated yield and throughput KPIs in real-time. Individual operator lights (red, yellow, green) and the plant floor scoreboard keeps performance visible to operators as they work their shift.
- A quality control station allows for random or sequential QC checks to ensure a quality finished product – all in real-time.

Debone/trim management systems have been successfully employed to handle numerous fresh poultry and case-ready applications for bone-in and boneless meat, including:

- Breast portion trim
- Thigh trim
- Whole leg debone
- Thigh debone
- Drumstick debone
- Turkey leg debone

Measuring Success

One of the persistent challenges of poultry debone lines has been the difficulty to accurately measure yields and other KPIs like quality, pieces-per-minute, pounds-per-hour and other user-defined data down to the operator level. Moreover, whatever calculations are being made tend to occur after the work shift has ended rather than in real-time – thereby missing out on opportunities to take immediate corrective actions that will improve worker productivity and performance.

Debone-trim management systems like YieldPlus generate practical reports in real-time while also providing historical performance comparisons. These reports are valuable tools for tracking operator, shift and departmental performance history and are invaluable documentation when conducting employee performance reviews.

In many processing operations, the system’s scoreboard and operator lights setup foster a healthy competitive environment and help keep operators engaged during the work shift.

These tools also enable plants to set up incentive pay functions that are based on actual, quantifiable data – making for a fairer and more equitable practice of employee performance evaluation and compensation.

In addition, the robust control capabilities of the YieldPlus debone/trim management system offer additional tools and insights into the process, including:

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<th>Name</th>
<th>Outfeed (lb)</th>
<th>PcPM</th>
<th>PPH</th>
<th>Yield %</th>
<th>Performance Level</th>
<th>Yield (%)</th>
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<td>75–80</td>
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<td>74</td>
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<td>116.2</td>
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</tr>
</tbody>
</table>

Robust, real-time reporting.

The fundamental functional components of the YieldPlus® system.
• Full diagnostics  
• Product parameters  
• Operator performance information  
• System alarms  
• Service capabilities via remote access

Delivering Product Quality Improvements

Another key benefit of debone/trim management systems like the YieldPlus is the quality control station that’s a key part of the system design. This QC station enables real-time quality control checks that are tied back to each operator workstation. This allows for immediate supervisor intervention with operators during the work shift, leading to quality, yield and productivity improvements right on the line. The system can be set up for doing random or sequential QC checks, and the results can be posted to the scoreboard in addition to being included in reports.

Flexibility on the Plant Floor

Debone/trim management systems like the YieldPlus are designed and built using modular components. As such, they can be engineered to fit into any existing or new processing operation. Set-up options include multiple workstations – as many as 28 – to accommodate throughput or footprint requirements as well as having single- or dual-product takeaway conveyors.

Moreover, 4-station “plug-and-play” extensions are available and ready for installation when the time is right. Because of this modular approach to system design, the YieldPlus system can be modified easily as customer demand grows or changes, resulting in a significantly lower cost of ownership compared to other systems that don’t offer the same degree of flexibility.

Making a Measurable Difference

Putting it all together, debone/trim management systems like the YieldPlus give managers the tools they need to raise the skill and productivity of their workers on the processing line. For the typical line where half or more of the operators aren’t working at peak efficiency and productivity, a YieldPlus system facilitates significant improvements that will pay dividends far into the future, as well as giving employees more job satisfaction to go along with their higher compensation.

Learn More

For more information and insights on poultry debone/trim management systems and how they’ll benefit your poultry operation’s efficiency, productivity and profitability, visit gainco.com/yieldplus or contact Gainco at 877-869-7410 to speak with a processing consultant.

Gainco®

Success you can measure.
YieldPlus®
Debone/Trim Management System

Take yield management to a new level. YieldPlus® brings together intelligent product distribution and real-time data collection by individual operator to deliver impressive results.

We offer three base models covering dark meat, case ready and big bird applications. What’s more, our modular design approach means we can build a YieldPlus system to meet the precise needs of your plant.

With nearly 100 systems in operation, YieldPlus leads the poultry industry in proven performance. To harness the productive power of YieldPlus for your plant, visit gainco.com/yieldplus, contact us at info@gainco.com or call toll-free 877-869-7410. Let’s get started!

Maximize yield
Measure success
Improve product quality

Typical YieldPlus® Applications
- Chicken whole leg debone
- Chicken drumstick debone
- Chicken thigh debone
- Turkey leg debone
- Chicken thigh trim
- Chicken breast portion trim

Success you can measure.