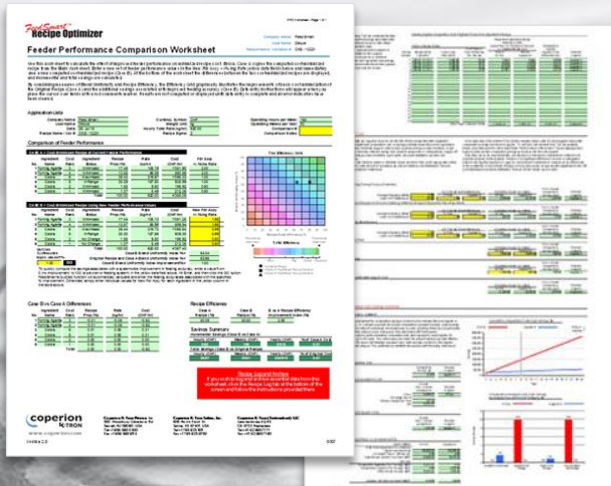


Total Savings Solution

*FeedSmart*TM
Recipe Optimizer

*TrueCost*TM
Savings Comparator



Overview

This presentation introduces Coperion K-Tron's Total Savings Solution along with the powerful, yet easy-to-use tools needed to achieve maximum cost efficiency in feeding system purchase and ongoing process operation.

Total Savings Solution

What is the Total Savings Solution?

- Prudent feeding system purchase requires identifying the best choice among a number of possible alternatives.
- When making a purchase the processor commits to a cost stream that begins with equipment purchase and continues throughout the process life.
- All too often only purchase price is considered at the outset, and downstream costs and savings potentials are ignored.

Total Savings Solution

What is the Total Savings Solution?

Coperion K-Tron's Total Savings Solution solves this problem by providing processors with the tools needed to consider all major cost elements in the feeding system purchase decision.

*FeedSmart*TM
Recipe Optimizer

*TruCost*TM
Savings Comparator

Total Savings Solution

What is the Total Savings Solution?

Coperion K-Tron's Total Savings Solution focuses on identifying comparative savings offered by candidate feeding system suppliers in each of the following areas:

Total Savings Solution =

Comparative Acquisition Cost Savings
+ Comparative Ingredient Cost Savings
+ Comparative Support Cost Savings
+ Comparative Intangible Savings

Total Savings Solution

What is the Total Savings Solution?

Comparative Acquisition Cost Savings is the difference between two suppliers' total initial investment required to procure a feeding system and bring it to operational status.

Comparative Acquisition Cost Savings =

Comparative Equipment Cost Savings
+ Comparative Installation Cost Savings
+ Comparative Initial Training Cost Savings

Total Savings Solution

What is the Total Savings Solution?

Comparative Ingredient Cost Savings is the difference between process-wide ingredient costs associated with two suppliers' respective levels of feeding system performance.

Comparative Ingredient Cost Savings =

**Supplier vs Supplier Ingredient Cost Savings
Related to Feeder Performance**

Total Savings Solution

What is the Total Savings Solution?

Comparative Support Cost Savings is the total of off-line direct and indirect costs associated with sustaining intended feeding operation.

Comparative Support Cost Savings =

- Comparative Off-Line Cleaning Savings
- + Comparative On-Line Cleaning / Changeover Savings
- + Comparative Off-Line Maintenance Savings
- + Comparative Spare Parts Savings
- + Comparative Post-Installation Training Savings

Total Savings Solution

What is the Total Savings Solution?

Comparative Intangible Factors are all subjective, supplier-related differences potentially affecting the feeder purchase decision.

Comparative Intangible Factors =

- Testing Capabilities
- Application Assistance
- Systems Engineering
- Equipment Integration
- Connectivity
- Reliability
- Compatibility
- Supplier Reputation
- Relationship with Rep
- Etc...

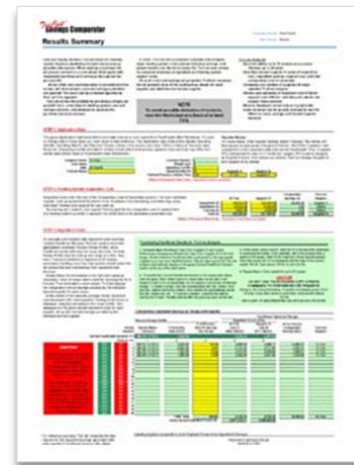
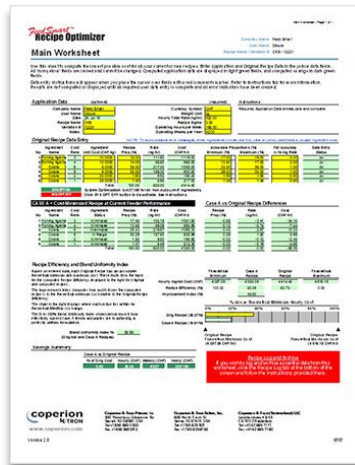
Total Savings Solution

The Total Savings Solution Tools

Coperion K-Tron's Total Savings Solution consists of two combined, powerful and yet intuitive Microsoft Excel-based tools.

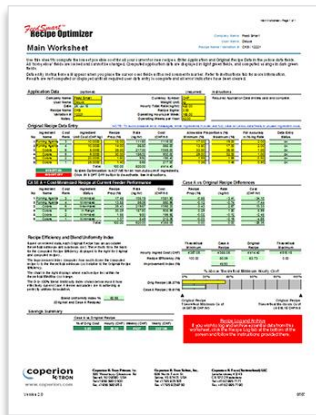
FeedSmart[™]
Recipe Optimizer

TruCost[™]
Savings Comparator



Total Savings Solution

The Total Savings Solution Tools



*FeedSmart*TM **Recipe Optimizer**

Based on the costs, proportions, tolerances and feeding accuracies you enter, FeedSmart minimizes total ingredient cost by strategically replacing expensive ingredients with less costly recipe components, all without violating quality limits.



*TruCost*TM **Savings Comparator**

TruCost combines data from as many as twenty FeedSmart Recipes with Acquisition and Support Cost data you enter, and then compares supplier offerings and projects costs and savings over process lifetimes of up to twenty years.

Total Savings Solution

FeedSmart™ Recipe Optimizer

Use FeedSmart to...

- Achieve the lowest possible cost for recipes, formulations, blends or compounds with your current feeding system
- Compute the additional savings potential of improved feeder performance on any or all ingredients
- Build your own Recipe Profile of up to 50 FeedSmart solution data sets to determine available annual process-wide ingredient savings
- Perform sensitivity analyses on any variable, and immediately view the results
- and much more...

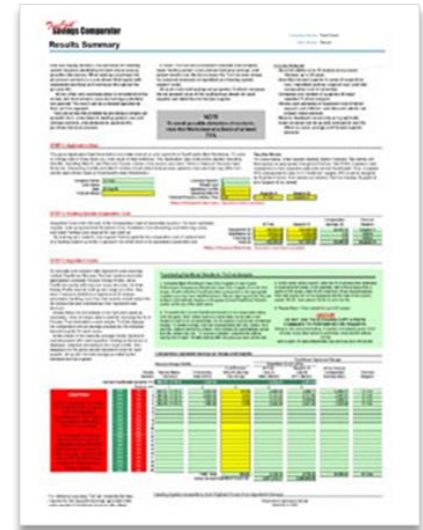
The screenshot displays the 'Main Worksheet' of the FeedSmart Recipe Optimizer. It features several data tables and a summary section. The tables include 'Application Data', 'Original Recipe Data Entry', 'Sensitivity Analysis', and 'Grand Total Original Recipe Differences'. The summary section at the bottom provides a 'Recipe Summary' with key metrics like 'Total Recipe Cost' and 'Total Recipe Weight'. The interface is designed for detailed recipe management and cost optimization.

Total Savings Solution

*TruCost*TM Savings Comparator

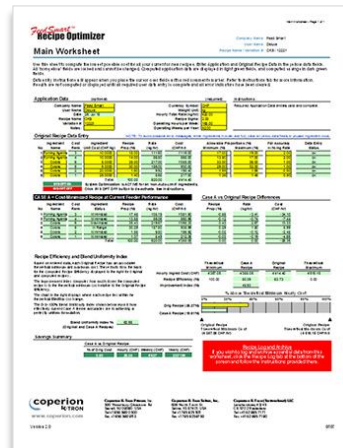
Then use TruCost to...

- Identify favored supplier in areas of acquisition cost, total ingredient savings, support cost, and total comparative savings
- Evaluate offerings from any number of feeder system suppliers
- Compare the savings achievable with improved feeder performance
- Perform financial analyses and project savings over process lifetimes up to 20 years



Total Savings Solution

FeedSmart™ Recipe Optimizer Overview



FeedSmart Recipe Optimizer is free and is available for download on the web at:
www.coperion.com/en/knowhow/technology/feedingtechnology/feedsmart

Total Savings Solution

FeedSmart Features & Benefits

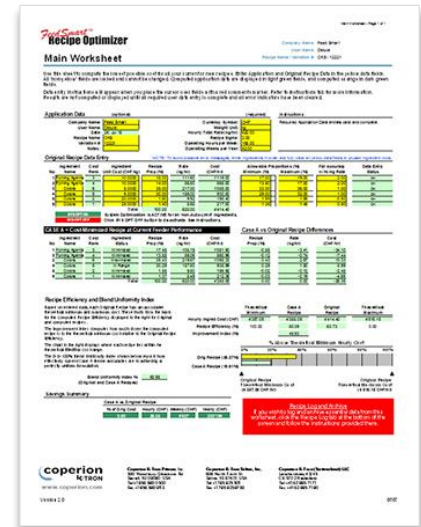
- Key in your current recipe data and let FeedSmart do the rest
- See how to cut costs *today* with your current feeding system, and plan even more cost-efficient recipes for *tomorrow's* applications
- Conform to all ingredient tolerances and quality standards
- Use FeedSmart's Savings Builder Worksheet to model your current or future process operations and build a customized multi-recipe profile to calculate total annual savings
- Store and retrieve up to 50 recipe solutions with FeedSmart's Recipe Log

The screenshot displays the 'FeedSmart Recipe Optimizer Main Worksheet'. It includes sections for 'Application Data', 'Original Recipe Data Entry', 'Costs and Tolerances', and 'Savings Summary'. The 'Savings Summary' table shows a significant cost reduction from \$100.00 to \$60.00, resulting in a 40% savings. The bottom of the page features the Coperion K-TRON logo and contact information for various regional offices.

Total Savings Solution

FeedSmart Features & Benefits

- Use FeedSmart's QuiCalc feature to instantly compute solutions and savings from a systemwide improvement in feeder performance
- Identify the feeders that are most critical to savings
- See why it pays to feed even low-cost ingredients more accurately
- Change any variable and instantly see its effect on savings
- Compute the cost efficiencies of current or prospective recipes, and the blend uniformity of the feeding system
- See how FeedSmart's Efficiency Grid graphically illustrates the savings gained from optimizing current recipes as well as the added savings achieved through improved feeder performance



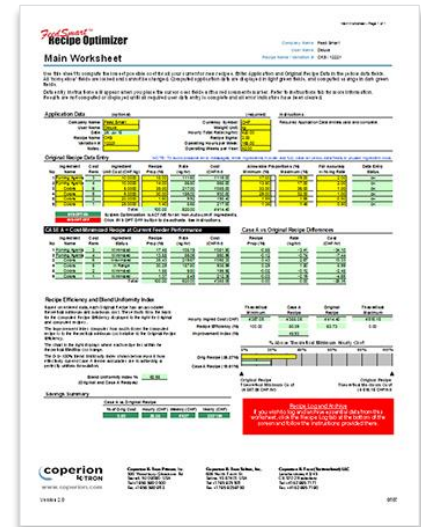
Total Savings Solution

FeedSmart Overview

FeedSmart is a
Microsoft Excel® 2013 Workbook
consisting of...

- Welcome, Introduction, Instructions and Glossary
- 5 Primary User Worksheets
- 1 Recipe Log
- 2 Information Worksheets

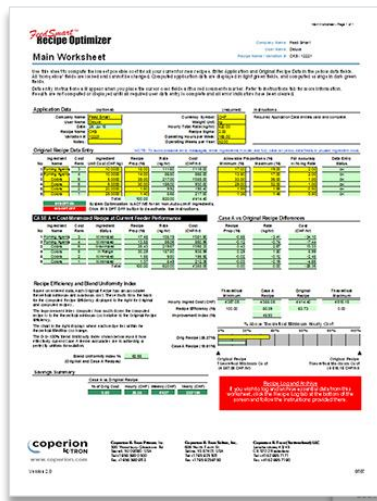
FeedSmart may be freely distributed without permission.



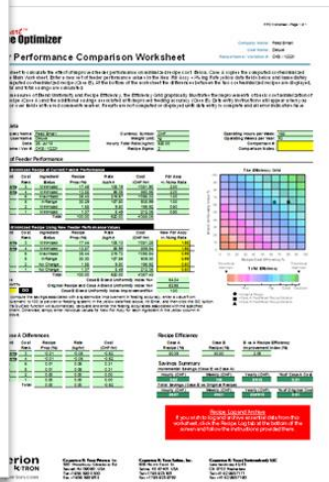
Total Savings Solution

FeedSmart Overview

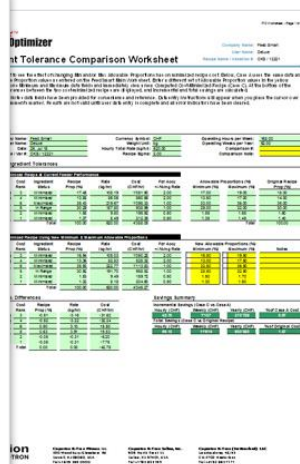
FeedSmart's 5 Primary Worksheets consist of...



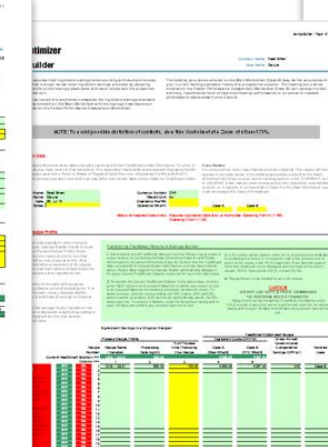
Main Worksheet



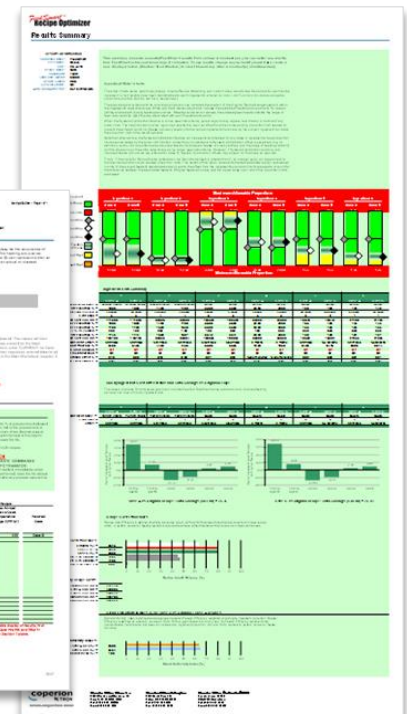
Feeder Performance Comparison Worksheet



Ingredient Tolerance Comparison Worksheet



Savings Builder Worksheet



Results Summary Worksheet (display only)

Total Savings Solution

Use FeedSmart in Every Phase of Process Operation

- **PLANNING PHASE** - Use FeedSmart to estimate recipe costs based on different levels of feeder performance, help determine required feeder accuracies for each recipe component, and compute the expected contribution of each feeder to the anticipated savings stream.
- **APPLICATION DEVELOPMENT PHASE** - Use FeedSmart in combination with supplier testing to translate measured feeder performance into savings estimates.
- **SUPPLIER EVALUATION PHASE** - Use FeedSmart to compare cost savings associated with the feeding performance offered by any number of suppliers, and then integrate that information into your decision process.

The screenshot shows the 'FeedSmart Recipe Optimizer Main Worksheet'. It is a complex spreadsheet with multiple tabs and sections. The 'Application Data' section at the top includes fields for 'Company Name', 'Plant Name', 'Line Name', and 'Recipe Name'. Below this is the 'Original Recipe Data Entry' section, which contains a table with columns for 'Ingredient', 'Rate', 'Accuracy', 'Savings', and 'Total'. The 'Recipe Efficiency and Blend Uniformity Data' section follows, with a table for 'Recipe Name', 'Rate', 'Accuracy', 'Savings', and 'Total'. The 'Savings Summary' section at the bottom right features a red background with white text, stating 'Total Savings: \$1,000,000'. The Coperion logo is located in the bottom left corner.

Total Savings Solution

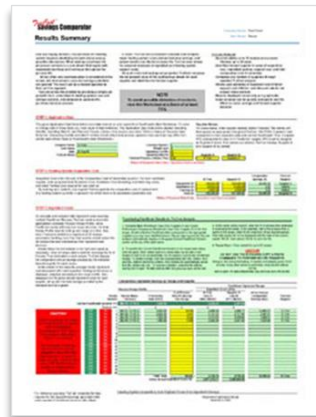
Use FeedSmart in Every Phase of Process Operation

- **POST-INSTALLATION PHASE** - Use FeedSmart to compute recipes using verified feeder performance measurements made under actual operating conditions. To accommodate any source of variation in your process, you can create different optimized recipe solutions for different process set-ups or conditions.
- **OPERATIONAL PHASE** – Regularly monitor feeder performance and use FeedSmart to adjust your recipes as needed to assure ongoing recipe optimization.

The screenshot displays the 'FeedSmart Recipe Optimizer Main Worksheet'. It includes sections for 'Application Data', 'Original Recipe Data Entry', 'Recipe Efficiency and Blend Uniformity Data', 'Grand Total Original Recipe Differences', and a 'Summary' section at the bottom. The worksheet contains multiple tables with columns for material names, quantities, and performance metrics. A red box highlights a warning message: 'It is recommended that you use the optimized recipe data for your process.' The Coperion logo is visible in the bottom left corner.

Total Savings Solution

*TruCost*TM Savings Comparator Overview

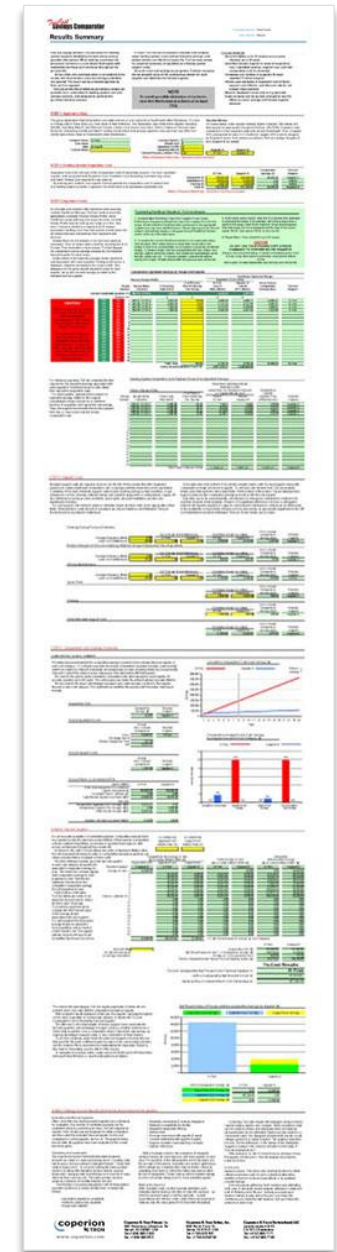


TruCost is free and is available for download on the web at:
www.coperion.com/en/knowhow/technology/feedingtechnology/feedsmart

Total Savings Solution

*TruCost*TM Savings Comparator

Coperion K-Tron's TruCost Savings Comparator combines the Recipe Profile you build in FeedSmart with Acquisition cost data and estimated Support costs to produce a Total Savings Solution customized to your specific process operation.

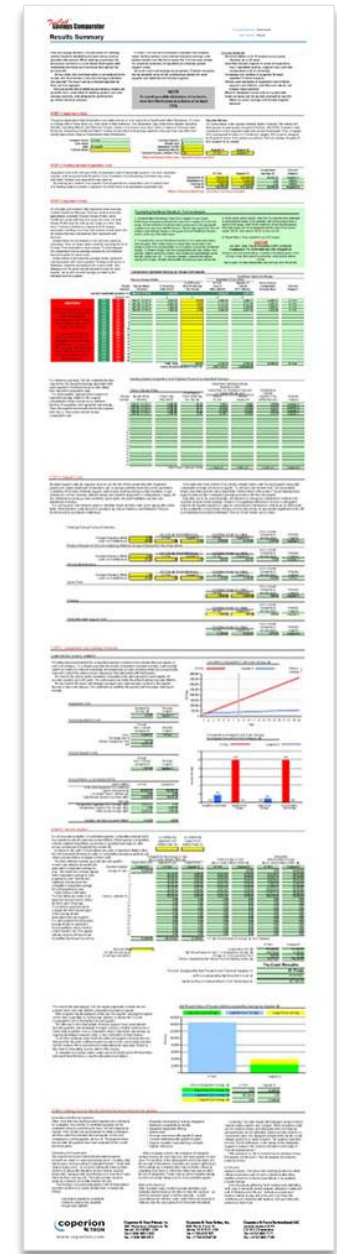


Total Savings Solution

*TruCost*TM Savings Comparator

With TruCost you can...

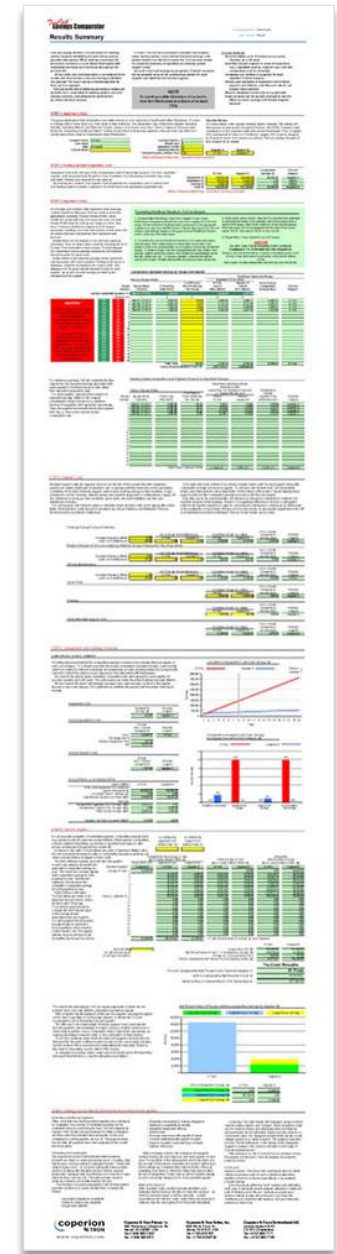
- Identify favored supplier in areas of acquisition cost, total ingredient savings, support cost, and total comparative savings
- Evaluate offerings from any number of feeder system suppliers
- Compute the savings achievable with improved feeder performance
- Project savings over process lifetimes up to 20 years



Total Savings Solution

*TruCost*TM Savings Comparator

- TruCost is fully supplier-independent. Results depend only on user data.
- TruCost calculates and compares feeding system return on investment and payback time for each supplier.
- TruCost charts comparative total savings over the process lifetime and hourly comparative savings in each cost area.
- TruCost allows user entry of inflation and interest rates for accurate net present value (NPV) analysis.



Total Savings Solution

*Thanks for Learning About
Coperion K-Tron's
Total Savings Solution*

We'd be happy to hear your comments and answer any questions you might have.

To contact any Coperion K-Tron manufacturing plant or sales and engineering office, or to find the Coperion K-Tron Representative serving your area, go to...

www.coperion.com