



BEMIA

BIF PRESENTATION SPONSOR



Baking Industry Forum



SAFETY:

OUR PEOPLE

OUR PRODUCTS

OUR CONSUMERS

Safety – Our People, Our Products, Our Consumers



Our People

Our Products

Our Customers

Members

Rowdy Brixey
Jeff Teasdale
Don Osborne
Clive Tolson

Members

Dave Hipenbecker
Damian Morabito
Ken Schwenger

Members

Jack Lewis
Chuck Wellard
Peter Pardoel

Today's Program



- See 3 Group Presentations
- Open it up for Discussion
 - Hold your questions until the end
 - Our intent is to promote discussion
 - Develop action plans on the topics discussed
 - Set shared priorities for BEMA and BIF
- Listen, Write down your questions, Actively participate in the discussion
- Voice your ideas and opinions!

Protecting Our #1 Asset



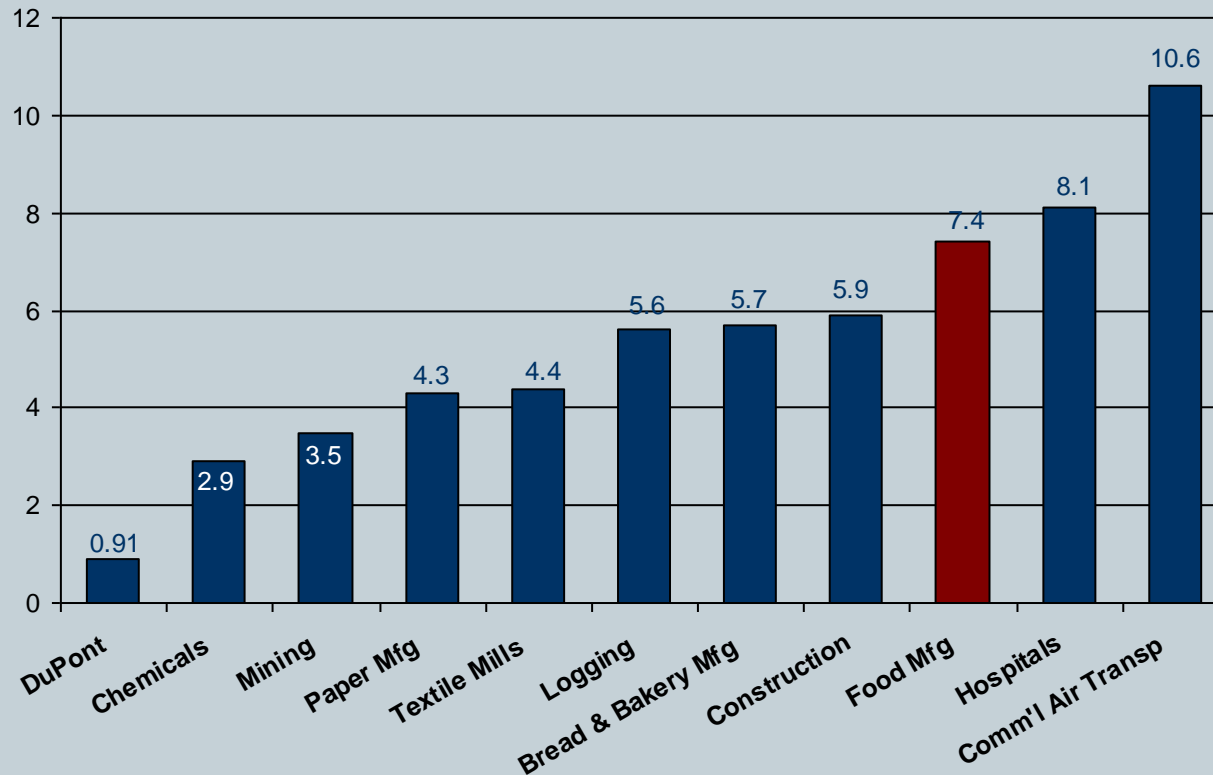
BIF – 2012

SAFETY: OUR PEOPLE

Safety Performance Baking Vs. Other Industries



“Recordable”
injury rate



OSHA is the US Occupational Safety and Health Administration. This agency establishes definitions of which types of injuries must be reported. Typically, any injury that requires medical treatment beyond simple first aid or non-prescription medicine or results in any time lost from work is “recordable”. The recordable injury rate is a basis for standardized comparison of injuries per 100 workers over a year’s time.

WC Cost Examples



Typical Single Line Bread Bakery

Avg % of Down Time	Avg % Waste	Oven Hours per Week	Units per Minute	Ingred cost per Unit (no labor)	Labor \$ per Hour (w/ Benfts)	Crew Size	Total \$ per Minute	Combined Labor \$ per Hour	Ingred \$ Loss per Year	Labor \$ Loss per Year	Combined Losses Ingred & Labor	Workers Comp as % of Retail Sales	Retail Price	Annual Workers Comp
1.0%	1.0%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 181,116	\$ 15,163	\$ 196,279	0.9%	\$ 1.75	\$ 663,390
1.0%	1.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 326,009	\$ 15,163	\$ 341,172	0.9%	\$ 1.75	\$ 1,194,102
1.5%	1.5%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 271,674	\$ 22,745	\$ 294,419	0.9%	\$ 1.75	\$ 663,390
1.5%	1.5%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 489,013	\$ 22,745	\$ 511,758	0.9%	\$ 1.75	\$ 1,194,102
2.0%	2.0%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 362,232	\$ 30,326	\$ 392,558	0.9%	\$ 1.75	\$ 663,390
2.0%	2.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 652,018	\$ 30,326	\$ 682,344	0.9%	\$ 1.75	\$ 1,194,102
2.5%	2.5%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 452,790	\$ 37,908	\$ 490,698	0.9%	\$ 1.75	\$ 663,390
2.5%	2.5%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 815,022	\$ 37,908	\$ 852,930	0.9%	\$ 1.75	\$ 1,194,102
5.0%	5.0%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 905,580	\$ 75,816	\$ 981,396	0.9%	\$ 1.75	\$ 663,390
5.0%	5.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 1,630,044	\$ 75,816	\$ 1,705,860	0.9%	\$ 1.75	\$ 1,194,102
7.5%	5.0%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 905,580	\$ 113,724	\$ 1,019,304	0.9%	\$ 1.75	\$ 663,390
7.5%	5.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 1,630,044	\$ 113,724	\$ 1,743,768	0.9%	\$ 1.75	\$ 1,194,102
								TOTAL	\$ 8,621,122	\$ 591,365	\$ 9,212,486			\$ 11,144,952

WC Cost Examples



Typical Single Line Bread Bakery

Avg % of Down Time	Avg % Waste	Oven Hours per Week	Units per Minute	Ingred cost per Unit (no labor)	Labor \$ per Hour (w/ Benfts)	Crew Size	Total \$ per Minute	Combined Labor \$ per Hour	Ingred \$ Loss per Year	Labor \$ Loss per Year	Combined Losses Ingred & Labor	Workers Comp as % of Retail Sales	Retail Price	Annual Workers Comp
1.0%	1.0%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 181,116	\$ 15,163	\$ 196,279	1.3%	\$ 1.75	\$ 958,230
1.0%	1.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 326,009	\$ 15,163	\$ 341,172	1.3%	\$ 1.75	\$ 1,724,814
1.5%	1.5%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 271,674	\$ 22,745	\$ 294,419	1.3%	\$ 1.75	\$ 958,230
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2.0%	2.0%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 362,232	\$ 30,326	\$ 392,558	1.3%	\$ 1.75	\$ 958,230
2.0%	2.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 652,018	\$ 30,326	\$ 682,344	1.3%	\$ 1.75	\$ 1,724,814
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7.5%	5.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 1,630,044	\$ 113,724	\$ 1,743,768	1.3%	\$ 1.75	\$ 1,724,814
TOTAL									\$ 8,621,122	\$ 591,365	\$ 9,212,486			\$ 16,098,264

WC Cost Examples



Typical Single Line Bread Bakery

Avg % of Down Time	Avg % Waste	Oven Hours per Week	Units per Minute	Ingred cost per Unit (no labor)	Labor \$ per Hour (w/ Benfts)	Crew Size	Total \$ per Minute	Combined Labor \$ per Hour	Ingred \$ Loss per Year	Labor \$ Loss per Year	Combined Losses Ingred & Labor	Workers Comp as % of Retail Sales	Retail Price	Annual Workers Comp
1.0%	1.0%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 181,116	\$ 15,163	\$ 196,279	1.3%	\$ 0.99	\$ 542,084
1.0%	1.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 326,009	\$ 15,163	\$ 341,172	1.3%	\$ 0.99	\$ 975,752
1.5%	1.5%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 271,674	\$ 22,745	\$ 294,419	1.3%	\$ 0.99	\$ 542,084
1.5%	1.5%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 489,013	\$ 22,745	\$ 511,758	1.3%	\$ 0.99	\$ 975,752
2.0%	2.0%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 362,232	\$ 30,326	\$ 392,558	1.3%	\$ 0.99	\$ 542,084
2.0%	2.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 652,018	\$ 30,326	\$ 682,344	1.3%	\$ 0.99	\$ 975,752
2.5%	2.5%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 452,790	\$ 37,908	\$ 490,698	1.3%	\$ 0.99	\$ 542,084
2.5%	2.5%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 815,022	\$ 37,908	\$ 852,930	1.3%	\$ 0.99	\$ 975,752
5.0%	5.0%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 905,580	\$ 75,816	\$ 981,396	1.3%	\$ 0.99	\$ 542,084
5.0%	5.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 1,630,044	\$ 75,816	\$ 1,705,860	1.3%	\$ 0.99	\$ 975,752
7.5%	5.0%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 905,580	\$ 113,724	\$ 1,019,304	1.3%	\$ 0.99	\$ 542,084
7.5%	5.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 1,630,044	\$ 113,724	\$ 1,743,768	1.3%	\$ 0.99	\$ 975,752
TOTAL									\$ 8,621,122	\$ 591,365	\$ 9,212,486			\$ 9,107,018

WC Cost Examples



Typical Single Line Bread Bakery

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1.0%	1.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 326,009	\$ 15,163	\$ 341,172	2.0%	\$ 1.75	\$ 2,653,560
1.5%	1.5%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 271,674	\$ 22,745	\$ 294,419	2.0%	\$ 1.75	\$ 1,474,200
1.5%	1.5%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 489,013	\$ 22,745	\$ 511,758	2.0%	\$ 1.75	\$ 2,653,560
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2.0%	2.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 652,018	\$ 30,326	\$ 682,344	2.0%	\$ 1.75	\$ 2,653,560
2.5%	2.5%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 452,790	\$ 37,908	\$ 490,698	2.0%	\$ 1.75	\$ 1,474,200
2.5%	2.5%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 815,022	\$ 37,908	\$ 852,930	2.0%	\$ 1.75	\$ 2,653,560
5.0%	5.0%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 905,580	\$ 75,816	\$ 981,396	2.0%	\$ 1.75	\$ 1,474,200
5.0%	5.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 1,630,044	\$ 75,816	\$ 1,705,860	2.0%	\$ 1.75	\$ 2,653,560
7.5%	5.0%	135	100	\$ 0.43	\$ 24.00	9	\$ 46.60	\$ 2,796.00	\$ 905,580	\$ 113,724	\$ 1,019,304	2.0%	\$ 1.75	\$ 1,474,200
7.5%	5.0%	135	180	\$ 0.43	\$ 24.00	9	\$ 81.00	\$ 4,860.00	\$ 1,630,044	\$ 113,724	\$ 1,743,768	2.0%	\$ 1.75	\$ 2,653,560
TOTAL									\$ 8,621,122	\$ 591,365	\$ 9,212,486			\$ 24,766,560

WC Cost Examples



Example of a Large Sampling

Avg % of Down Time	Avg % Waste	Combined Losses Ingred & Labor	Workers Comp as % of Retail Sales	Retail Price	Annual Workers Comp
3.5%	2.2%	\$ 22,546,160	2.5%	\$ 1.50	\$ 81,900,000

Beliefs & Principles



Beliefs

- All injuries are preventable
- We have an obligation to work safely
- We are accountable for each other's safety
- To be a great business, we must have great safety performance

Principles

- Always consider safety before we take any action
- Be accountable for working safely
- Establish and follow all safety rules and safe work practices
- Identify and correct any unsafe behaviors or hazardous conditions
- Timely report and fully investigate every incident and take corrective action

Beliefs and Principles are Essential for Providing Guidance and Expectations

Beliefs – these are not negotiable. Even if we cannot accept them intellectually, we have to suspend reason and simply believe. Of course, the best result is that we internalize them intellectually and emotionally.



All injuries are preventable: I used to think that some injuries are inevitable, especially in our business. Then I started to look at each incident individually. And each injury has a root cause that can be eliminated, mitigated and prevented. I challenge each of you to think of any injury and reach a different conclusion.

We have an obligation to work safely: The key word here is obligation. We work safely because it is our moral duty to do so.

We are accountable for each other's safety: This belief highlights that we are not in this alone or for ourselves. We have to engage people we know as well as those we don't. We will own this belief when we never walk past anyone or anything that is not safe – whether it is someone running down the steps without holding the hand rail or an associate mishandling a stack of trays.

To be a great business, we must have great safety performance: It is simply not enough to produce monetary results; how we get them matters. But more importantly, we cannot deliver consistent and sustainable results unless we have great safety performance. Great safety performance mean sustainable systems are in place, leaders are caring and all associates are engaged. That will lead to great business performance across the spectrum of our KPIs.

Principles – these are guides to action. They should help ground us as we act, answer questions at the fringes and keep us on track.



Always consider safety before we take any action: This is not a part-time pursuit. Safety must be considered inside and outside of work. By considering safety, we will make better decisions, take better risks.

Be accountable for working safely: Accountability has two sides – penalties for not meeting expectations and rewards and acknowledgement for working safely. Both sides are equally important.

Establish and follow all safety rules and safe work practices: The first part of this principle is that we will establish rules and practices. It acknowledges that we have a long way to go just to define safe work rules and practices. It requires our action. Then, once established, these rules apply to everyone, starting with us. We need to lead by example here.

Identify and correct any unsafe behaviors or hazardous conditions: We cannot walk past anything that is unsafe. Things that can be corrected easily, immediately and visibly should be corrected. More difficult or complex things must be identified and talked about, with progress being made to address issues urgently. People are watching us for our leadership and commitment.

Timely report and fully investigate every incident and take corrective action: We must create a culture where late reporting is worse than an underlying injury. This will allow us to timely investigate incidents to ensure that we are identifying and eliminating risks.

THE GOAL IS ZERO



**This is
a
CHOICE !**

Workers Compensation / Insurance Costs



- Waste and downtime are controllable costs, but what about safety?
- Where should the focus be?
- How do the costs compare?

Guarding and Controls



- Is there more than one way to skin the cat?
- What is the safest design and you still operate the machine effectively?
- Severity and Likelihood...how should they factor into your safety ranking and guarding focus?

Visible Leadership Commitment



	Always	Often	Sometimes	Rarely	Never
	5	4	3	2	1
21. I provide suppliers with the BBU Engineering spec's.					
22. I observe contractors while on the job and enforce strict safety practices and GMPs.					
23. I expect the safety guarding assessments back from all equipment suppliers.					
24. I review the vendor guarding assessment for every project and make recommendations to improve safety design.					
25. I share new guarding best practices with my colleagues.					
26. I expect contractors to set an example for BBU employees.					

A Self-Rating to assist with your Personal Action Planning

Managing Safety: Project Engineer Role



SEVERITY		MEANING	LIKELIHOOD		MEANING	FACTORS AFFECTING LIKELIHOOD
1.	Minimal	No real effect on the operator who may not even notice	1	Negligible	Finite but insignificant chance of occurrence	Exposure time and frequency
2.	Slight	Minor injury e.g. cut or bruise	2	Remote	Conceivably possible but not likely	Probability of occurrence
3.	Moderate	Injury causing short term disability but full recovery probable e.g. broken bone or muscle strain	3	Possible	Incidents likely to occur	Lack of possibilities of avoidance
4.	Disabling	Severe injury e.g. amputation	4	Probable	Repeated incidents likely	Critical component mean-time between failures
5.	Fatal	Death could occur	5	Likely	Incidents almost inevitable	Historic accident and incident data

Summary



- **We all have to believe and be committed to Zero Injuries**
 - Actions speak louder than words.
 - Inconsistency between leaders sends a powerful message
- **This requires a fundamental change in how we lead**
 - Each person follows their own path and builds their own perspective
 - Persistence is critical – false starts happen, reinforcement is critical
- **It is not just about safety.**
 - The same principles can be applied to food safety, quality, cost, etc.
 - In the end:
 - ✦ We will have a more engaged work force
 - ✦ We will be a learning organization with high standards
 - ✦ We will have better business results
- **This is a cultural change.**
 - Everyone's behaviors, expectations of themselves and others will change.

How Do We Manage Hazards



- Facility Safety
- Personal Practices
- Ergonomics
- Machinery Safety

Facility Safety



- **Flooring**
 - Surfaces – Non slip, coverings for stand-points
 - Drainage
- **Lighting**
- **Fork Truck and Warehouse Design**
 - Traffic Patterns
 - In floor conveyance systems
- **Grounds / Building**
 - Truck Flow
 - Access to plant equipment (roof tops)

Personal Practices



- **Personal Protective Equipment (PPE)**
 - Footwear, Earplugs, Safety Glasses, Knee Pads, gloves, etc
- **Ladders, Lifts**
 - “Anti-ladder” Policies becoming common
 - Stairs v. Ladders
- **Training – Huge Commitment**
- **ARC Flash**
 - Designing of Control systems to eliminate need to enter live panels
 - Training and equipment to enter panels

Ergonomics



- Design of manual tasks
 - Roll / bag lifting
 - Wrapper loading
 - Basket Handling
- Repetition and severity and exposure time
- Lifting restrictions
- Noise
 - Machines, blowers, etc

Machine Safety



- **Guarding**
 - Pinch points
 - Power transmission
 - Hot Surfaces
 - Rotating parts
 - Machine / product visibility

- **Design out the hazard**
 - Minimize transfers
 - Direct Drives
 - Smooth Belts
 - Lower heat requirements (material compatibility)
 - Locations of Blowers (noise)

Machine Safety (cont.)



- Compressed air, potential energy
 - Controls and hardware to isolate or release potential energy
- Stop and E-Stop Sequences / Devices
 - Ensuring true release of all energy
 - ✦ Except where release could create hazard
 - ✦ Special cases required
 - Locking Robot Motors
 - Holding pneumatic cylinders

Machine Safety (cont.)



- **Electrical Panel Design (Arc Flash)**
 - Front of panel access to controllers
 - Lock-Out / Tag-Out
- **Electrical control standards**
 - Category 3, 3 plus, etc - Redundancy
 - Full energy isolation
 - Robot Cells – key systems, light fields, etc
- **Integration details**
 - Machine to machine mechanical design to minimize guards
 - Controls integration for e-stop “sharing” and stop sequencing

Safety Checklist



- Process by which vendors and customers evaluate projects and equipment for safety risks
- Checklist used at all stages of project
 - Concept/design to Production ready
 - Example (separate file)
- Provide to vendors with RFP
- Includes product safety attributes, as well

Safety – Our People, Our Products, Our Consumers



OUR PRODUCTS

Our Products



- What measures do we take to keep our products safe for our consumers
- Obvious Testing
 - Formulation
 - Weights
 - Moisture
 - Visual and Electronic Foreign Material Detection
 - Color
 - PH
 - Smell
 - Taste/Flavor
- The list could go on and on.....

Our Products



- What other things do we do?
- Line designs and Layouts
 - Avoid Contamination points
 - ✦ Lines Crossing
 - ✦ Stacked Lines
 - ✦ Areas that can't be cleaned easily
 - ✦ Belt Materials
 - ✦ Mechanical Fasteners
 - ✦ Wear Points in or over Product Zones
 - ✦ Ceiling Finishes

Our Products



- Design Considerations

- Automated detection

- ✦ Metal Detectors
- ✦ Check Weighers
- ✦ X-Ray
- ✦ Code Dating
- ✦ Visual Scanning

- Mechanical Protection

- ✦ Line Covers
- ✦ Catch Pans
- ✦ Color Coding
- ✦ Tamper Evident

Our Products



Lines Crossing



Hard to Clean



Our Products



Ceilings

Old



New



Our Products

Metal Detectors



Our Products

Check Weighers



Our Products

X-Ray Machines



Our Products



Code Dating



Our Products



Our Products

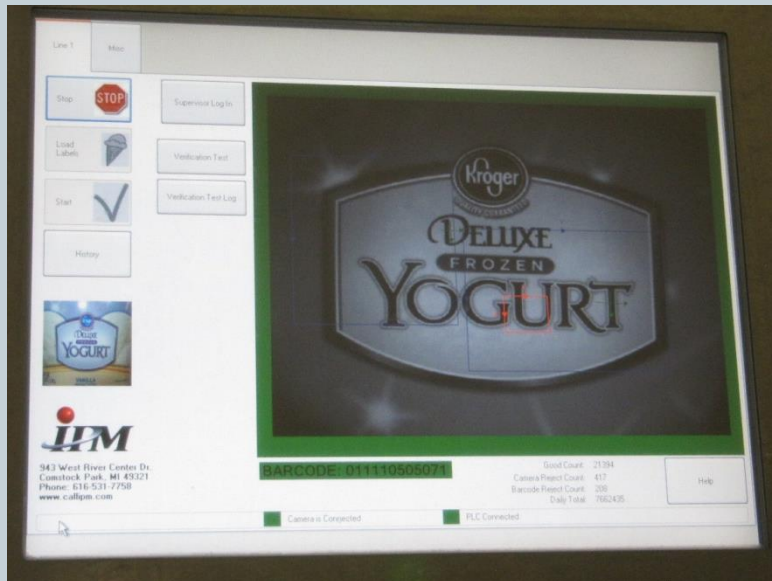


Coding



Our Products

Visual Scanners



Our Products



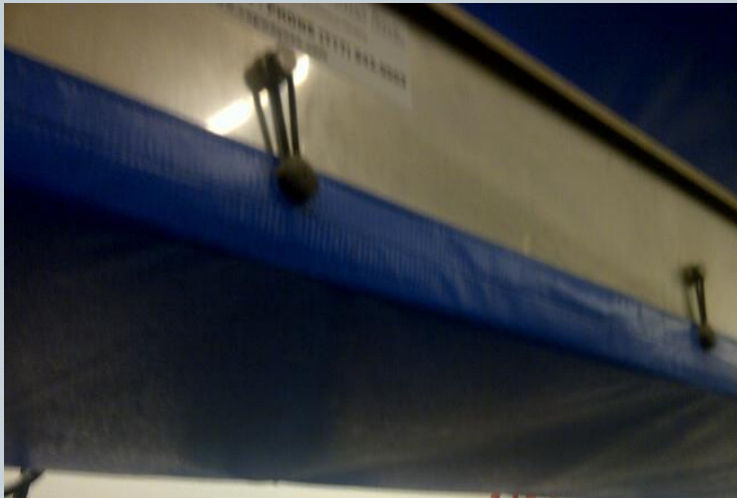
Line Covers



Our Products



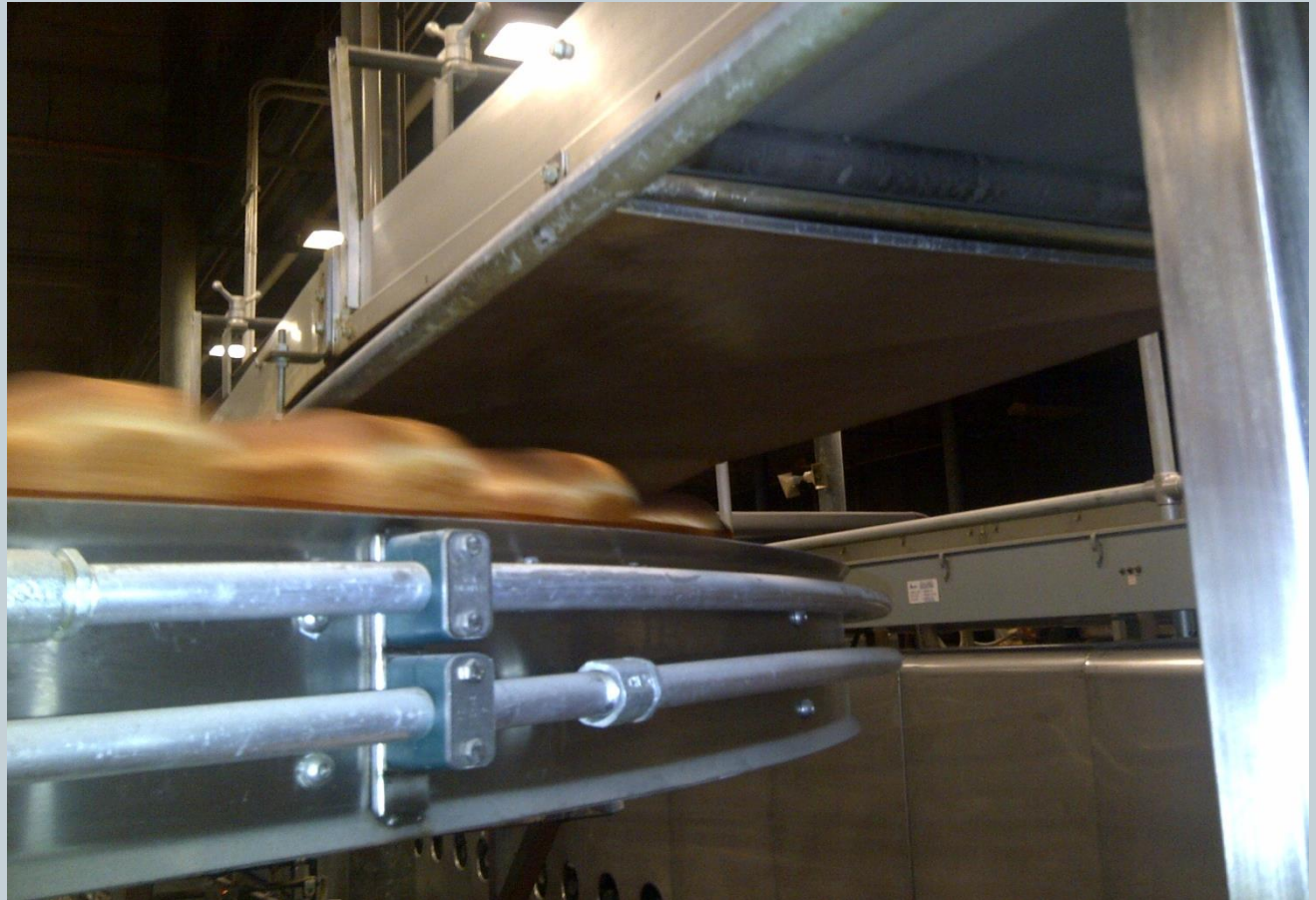
Catch Panes



Our Products



Catch Pans



Our Products



Color Coding



Our Products



Tamper Evident



Machine Design For Food Safety/Sanitation

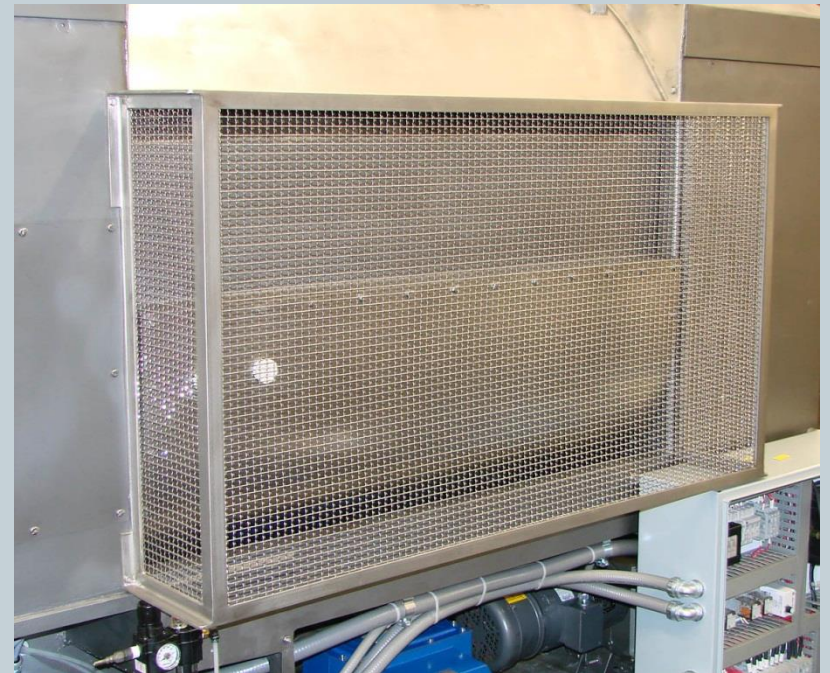


A. COVERS AND GUARDING

- Hinged, liftoff
- Materials of such [plastic, stainless steel 1" x 1" weave, etc]
- Electrical interlocks for these
- “No tool” removal
- Sanitary design of the cover/guard itself



Easy opening, hinged, self supporting cover with electrical interlock

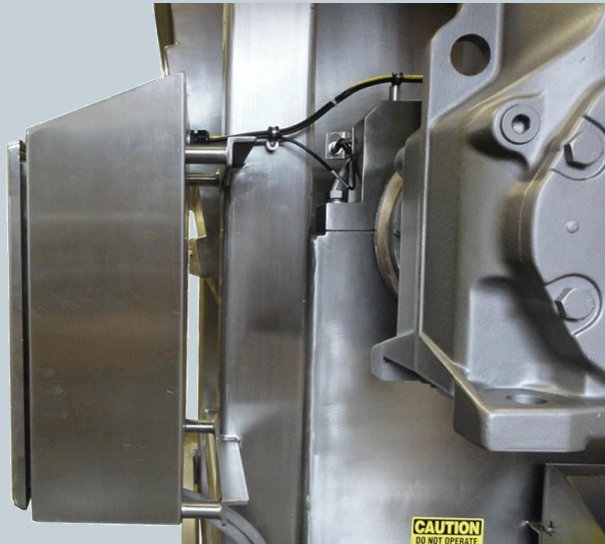


S/S woven screening is sanitary and provides good visibility for cleaning and maintenance

B. Machine Design Principles



- Design for easy cleaning in place if possible
- NEMA 4X, NSF, ETL and UL design
- More stainless steel and less of other materials that can corrode or degrade over time
- Make machine mobile to be moved to wash down area where applicable
- Put equipment up on feet/legs and not designed flat to the floor where practical
- Make “dirty” components lift-off or detachable for easier cleaning “out of place”
- Utilize fixtures/custom carts to hold the detachable items for cleaning in a wash room or rack washer

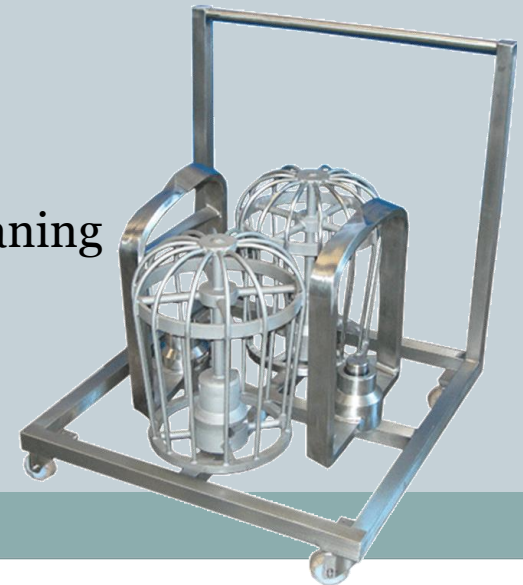


“Watershed” electrical enclosures, mounted in sanitary fashion



No tool, removable bowl to canopy seals

Mobile cart for cleaning mixing tools



C. Equipment Covering after cleaning



- Mixer bowl/trough covers
- Custom machine and process equipment “covers” in poly, plastic or fabric to keep an already cleaned line or piece of equipment clean until the next run
- Utilize mobile screening to keep a cleaned line from getting cross contaminated from a running line



Bowl / trough covers keep them clean until re-use.



D. Cleaning Instructions & Verifications



- When a Panelview is used, program a chart of cleaning instructions on that panel that describes how to properly clean that machine, what method to use, the “tools” needed, areas to pay attention to, etc.
- Have the “cleaner” then verify that the machine has been cleaned by entering their “code” into the panel to verify that they did it and when. This makes the “cleaner” responsible now for that machine/line.
- If no Panelview is used then a laminated chart with photos that is secured to the machine can show the cleaning instructions.
- Tie this into the “PDA system” [iPods, laptops, smart phones, etc] of the plant so that the people who need to know it was done can verify it to be so.

E. Continuous Conveying



Use continuous conveyor systems where possible

- Minimize the number of conveyor sections to clean
- Reduce the amount of transfers and cleaning points
- Use belt washers [fixed and mobile] where applicable



Mobile belt washing assembly



Continuous conveyor design minimizes product transfers



Inline belt washer



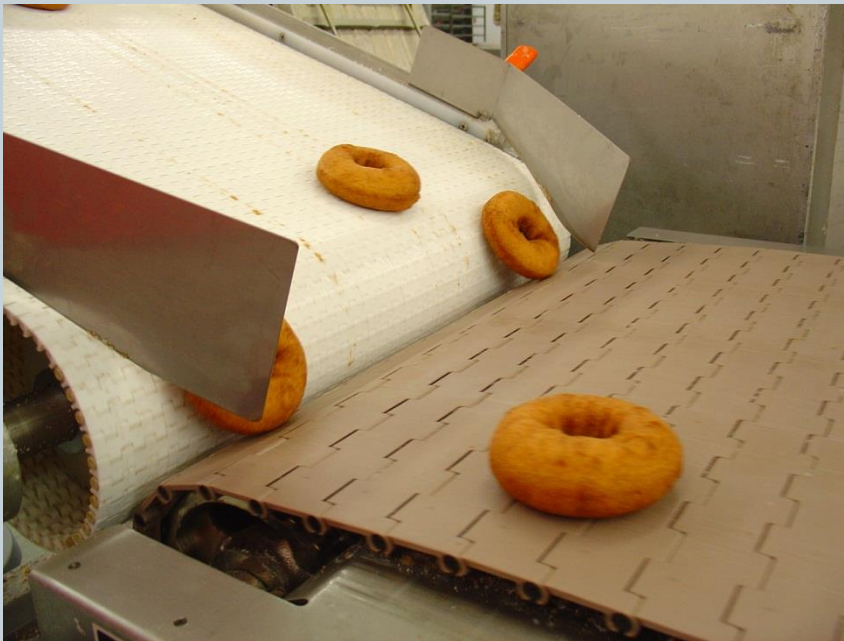
Inline pan cleaners brush, blow and vacuum the pan clean of possible allergens and contaminants

F. Design Out...



...bad product transfer points which cause cross contamination areas.

- From Make-up to Packaging, make your product transfer points as smooth and cleanable as possible. Eliminate accumulation areas of product “fines” where possible
- Have the transfer point slides and rollers removable for cleaning and have [2] sets of them for fast changeovers



Open conveyor to conveyor transfers eliminate the possibility for the accumulation of possible allergens and contaminations



Product slide transfers are removable and easy to clean

G. “Kill” zones



Concerns before and after the oven/fryer/griddle “kill” zones

- We do well as an industry to make all of the equipment before the kill zones cleanable and washable, yet there is a lot of room for improvement from the cooler and into packaging...”**Post Kill Zone**”
- Upgrade to more cleanable depanning and packaging equipment
- Use modern in-line pan brush and vacuum systems to remove possible allergens and contaminants



Hard to clean depanner



Hard to clean slicer



Easy to clean depanner



Easy to clean slicer
and baggers

Building design for Food Safety/Sanitation



I. PORTIONS AND SEPARATIONS BETWEEN LINES TO MINIMIZE CROSS CONTAMINATION POINTS

- Design so that cleaning one line does not contaminate the adjacent line
- “Shower” curtains and movable screens between lines so as to stop cross contamination during cleaning
- Hot and cool/cold room separations



“Shower” curtains are used around mixers for cleaning

Building Design



II. Keep all raw materials out of trafficked production/packaging areas

- Tight plants are forever placing raw materials, ingredients, packaging materials, etc in places of the plant which are riddled with contamination possibilities from adjacent equipment and overhead environments.
- Cordon off certain areas designated for these raw materials, to be color coded and marked as such

Building Design



III. Conveying concerns

- Hang conveyors in a cleanable fashion using sanitary methods and materials, Ex; no exposed all-thread..
- Watch out for crossing conveyors over and under each other that could contain allergens and cause possible cross contamination points
- Conveyor catch cloth/tray designs need to be practical and easily cleanable



Examples of sanitary conveying hangers

Building Design



IV. Compressed air concerns

- Use blow guns only in designated areas, limit their use altogether
- Be sure that the intake systems of the plant air compressors and blowers are not “sucking” in plant ingredient dust which will end up mixing with the moisture in the air lines to create pathogens and allergen concerns on all plant equipment.

Building Design



V. Overhead ceiling and overhead structure designs should be designed “clean” and cleanable

- Flat, cleanable, walk-able ceilings above all production areas
- Vertical utility drops
- No “Unistrut” in the plant near production zones.
- NEMA 4 wire troughs versus open wire /cable trays
- Wash-down conduits and connectors versus NEMA 1



Walk able ceiling



Sanitary process piping hangers and installation

Building Design



VI. Floor and floor drain concerns

- Placement and the design type of floor drains needs to be proper for the designated production area in the plant
- Cleaning schedule and system/methods of the floor drains
- Does the flooring system meet all sanitary “codes” for cleanability
- Will the flooring system withstand the plant traffic to remain cleanable and “tight”



Sanitary drains



Sanitary curbing

Safety – Our People, Our Products, Our Consumers



OUR CONSUMERS

FSMA–Recordkeeping

FDA Records Access



- **Hazard Analysis and Preventive Controls Plan Records**
 - Document hazard analysis /preventive controls in food safety plan, including rationale and reanalysis
 - Document monitoring and verification of controls
 - Document instances of nonconformance and corrective actions
 - Records must be retained for 2 years and “promptly” made available “upon oral or written request”
 - *Effective July 2012*
- **Foreign Supplier Verification Program Records**
 - Records “related” to foreign supplier verification activities
 - must be retained for 2 years and “promptly” made
 - available to FDA upon request
 - *Effective January 2013*

FSMA Pending Proposals - Traceability



- Food Safety Modernization Act (FSMA) required The Secretary of Health and Human Services to establish **traceability pilot projects**:
 - One raw produce item, one processed food
 - Foods must be associated with outbreaks 2006-2010
 - Domestic and international products
 - Small and very small businesses
 - Cost/benefits, feasibility across supply chain
 - Cannot prescribe specific technologies
 - No pedigree

FSMA Pending Proposals – Traceability Pilot Project Timeline



- **January 2011** - Food Safety Modernization Act passed
- **January 2012** - (Guidance in April 2012) - High risk foods will be designated
- **June 2012** - IFT Traceability Pilots Report due to FDA
- **July 2012** - FDA shall provide a report to Congress on recommendations for establishing more effective product tracing
- **January 2013** - FDA shall publish a notice of proposed rulemaking to establish recordkeeping requirements
 - Additional requirements will be laid out for foods that are 'high risk'

The EU, central & eastern Europe I






- **There is not “one” European legislation:**
 - ✦ **UK**
 - ✦ **EU states**
 - ✦ **New Membership states**
 - ✦ **Outside of the EU but inside of Europe (central/eastern)**
- **They are working on harmonizing legislation**
- **We decided to give you a working document with:**
 - ✦ **Information**
 - ✦ **Links to important web sites**
 - ✦ **Checklists**

The EU, Central & Eastern Europe II



- There are 3 reports available at the BEMA web site:

-  Bread labeling and packaging BIF presentation
-  breadflourguide BIF presentation
-  interpretation_imports BIF presentation

- The 1st report is the main report, the other need to be seen as background information

The EU, Central & Eastern Europe III



- Introduction
- 01: Understanding food labeling in the UK and the European Union (and the difference between the two)
- 02: Understanding labeling standards
- 03: Understanding extra food labeling systems within the EU
- 04: Understanding labeling standards for horticultural imports (product containing nuts etc.)
- 05: Understanding food packaging
- 06: Understanding import and export process requirements for food labeling and packaging
- 07: Sources of help and support with food labeling and packaging
- 08: food handling and safety: checklist

Lean Finely Textured Beef



- **LFTB is a USDA approved process that has been around for decades.**
 - The fat and protein in un-useable trimmings is separated in a centrifuge at high temps.
 - The lean protein is then treated with ammonia hydroxide to reduce pathogens.
 - The product is then added to ground beef to reduce fat.
- **LFTB was attacked:**
 - April 2011 – Jamie Oliver
 - Social Media/Viral
 - March 2012 ABC news
- **LFTB became “Pink Slime”.**
- **LFTB was defended by the USDA, scientific community, retailers, and government.**
- **Consumers were not convinced and lost confidence.**
- **LFTB was removed from retailer shelves.**
 - One company went bankrupt and another closed four facilities.
 - Beef sales were hurt and prices will go up.
- **Other recent examples:**
 - Kashi Cereal.
 - Starbucks Cochineal Beetle

What is Driving Traceability/Transparency?



- Consumers
- Social Media
 - Blogs
 - Tweeting
 - Online petitions
 - Consumer complaints
 - Youtube
- Retailers
- Traditional Media
- Government

3 Basic Questions



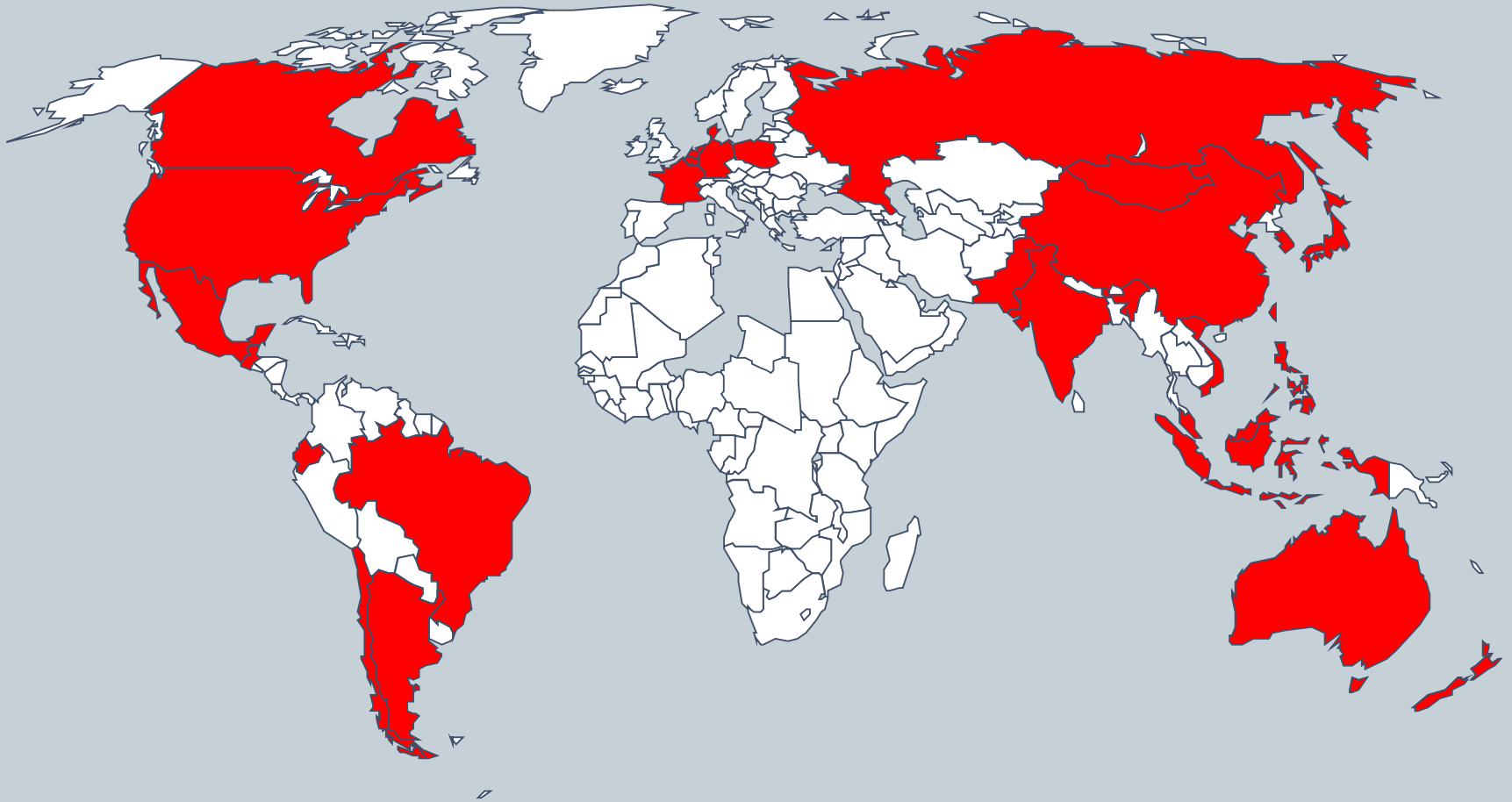
- What is in your product?
- Where did it come from?
- What are you doing about it?

What is in Your Product?



- Know what is in the product:
 - What is it made out of?
 - ✦ Ingredients-Components
 - ✦ Equipment-Materials
 - Sustainability-What resources were used to make it?
- Quantify improvements your products make to the process:
 - If there is an efficiency benefits from your products, quantify them.
 - How much Carbon, Water, Energy, etc... is it going to save.

Where did it come from?



Where Did It Come From?



- Baked Goods are a global product.
- Where and How was your product produced?
 - Plant?
 - Country?
 - Field?
 - Which country?
 - Labor practices?
 - Are they being inspected?
- Need the capability to quickly retrieve information.
 - Bakeries need robust systems that allow them to trace, record, and retrieve this information.

What are you (we) doing about it?



- We already live in an environment of extreme transparency.
- Is there a baking “Pink Slime” ?
- Is there something we don’t want the consumer to see?
- Is there anything in our products, ingredients, equipment, or processes that could be misunderstood by the consumer?
- Our retailers are asking us to get ahead of the curve.
- They want to avoid the next big controversy by indentifying it first.
- Know your products ahead of time and be able to respond quickly to any requests.
- How is this going to be communicated to the consumer:
 - In the store.
 - Packaging.
 - Labeling.
 - Media.
- Protect our reputation with the consumer.
- In this new environment of transparency, how are **we** going to maintain consumer trust in our brands, products, and industry?

Now it's your turn



- Questions & Answers
- Brainstorming
- Discussions



BEMIA