

MEU SUPPLIER WEBINAR

April 2019





WELCOME

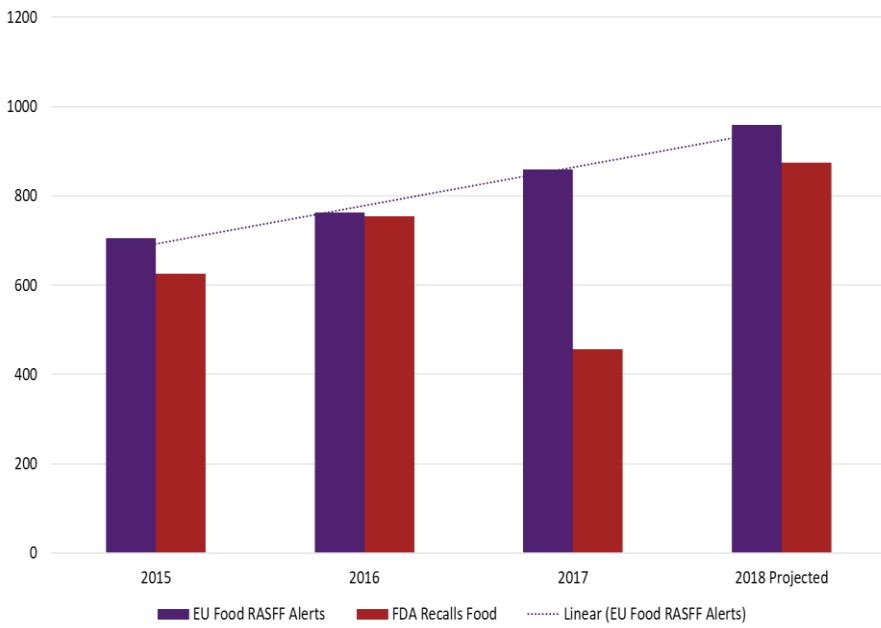


Thank you for attending

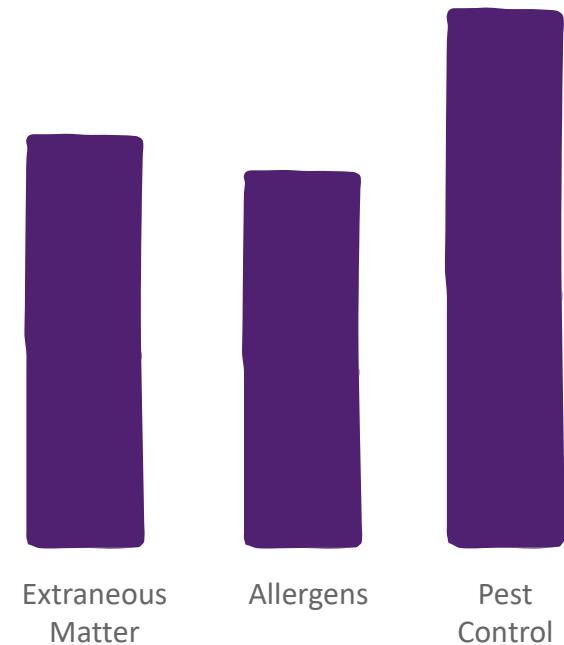
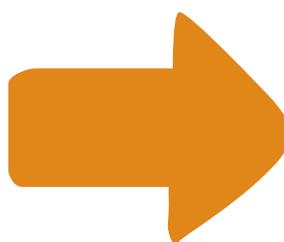
- You have been invited as we value you as a supplier to our great company
- The webinar will be recorded, all participants will be muted
- The webinar will take approximately 1hr 15 minutes and you have 4 speakers. It will be in English, please note this is the second language for some of the speakers 😊
- There will be informal questions at points during the webinar
- You can write questions through the webinar, we won't have time to answer them all but Joanna will note them and we will endeavour to answer over the forthcoming days
- ENJOY / Disfrutar / Profiter / Genießen / Наслаждаться / Cieszyć się / Njuta / Godere/ Аполяўстэ / Keyfini



WHY ARE WE DOING THIS ?



THE FOOD INDUSTRY IS *NOT*
TRENDING IN THE RIGHT
DIRECTION



MEU SUPPLIER QUALITY
SEEING THESE AREAS AS
DRIVERS OF QUALITY
NOTIFICATIONS

OBJECTIVE



To share with you some key
MDLZ requirements

To help understanding and
develop our working
relationship

To reduce our defects and
help improve supplier
performance

CONTENT

- 1 Root Cause Analysis & CAPA
- 2 Extraneous Matter Management
- 3 Pest Control
- 4 Allergen Management





Mondelēz
International
SNACKING MADE RIGHT

Global Supplier Quality



ROOT CAUSE ANALYSIS

OBJECTIVES

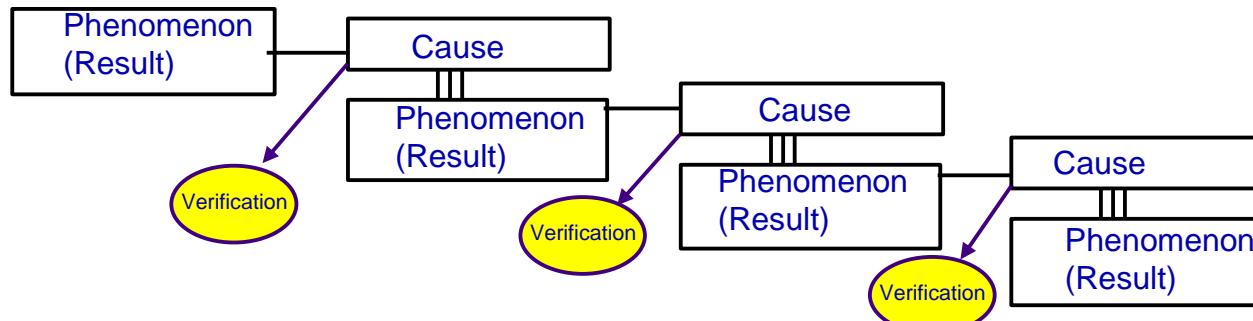
Show the tools and methodologies used for Problem Solving, ensuring critical, deep analyzes that generate positive results for the Supplier and MDLZ receiving plant.

To help suppliers ensure we do not receive defects and we remove business disruption from supplier related issues. We improve our suppliers



Indicators to target improvement maybe:
QN numbers
Rejected material
Cost of Quality (down time, waste)
Consumer Complaints
Actions completed by RCA

FINDING ROOT CAUSE: WHERE WE CAN IMPROVE?



Example:

Projector does not work – after all checks using 4M, established that bulb was broken

Bulb replace is immediate action, but not root cause

Why?	Answer	Action
Why did the bulb Break	The Filament was broken	Replace Bulb
Why did the Filament break	The bulb overheated	Check against standard
Why did the bulb overheat	The PROJECTOR was incorrectly turn off – unplugged from mains before bulb is cool down	Check Procedures
Why was the Projector turned off incorrectly	Because the operator did not know there was a specific procedure	Review Communications
Why did the operator not know the procedure	No labels on machines to advise	Improve Training and Labeling



SO WHERE DO WE ?

CLARIFYING AND FOCUSING IN THE PROBLEM



5W+1H

THE PROBLEM STATEMENT: 5W+1H

To create a focused problem statement ask clarifying questions:

What...	... do you see, what is issue do you want fixing? What is wrong? What broke / failed? (The component and its characteristics)
Where...	... do you see the problem happening? In particular region, in a category, plant, supplier, customer? The system / subsystem / position of the component that broke / failed
When...	... do you see problem happening? Always? Sometimes? Seasonal issue? When launching new products? After cleaning or maintenance activities?
Who...	... is associated with the problem? Variation amongst people / shifts? Who is involved? Whom is affected? Can the problem be related to ability? Which ability?
Which...	... product / formats / processes are more affected? Is there a tendency in the occurrence of this problem?
How...	... is it different from what you expect? What are the deviations from ideal state, pre-set standards?

EXAMPLE PROBLEM STATEMENT: 5W1H (MANUFACTURING)

2. Define the Problem (5W1H)

2.1 What? (Material: What is wrong? What broke / failed? Component and its characteristics)

Conveyor left side damaged, losing parts and impacting on product's quality

2.2 Where? (Location: which system / subsystem / position is the component of the break / failure / issue)

Main conveyor SA 0102 (feeding CMY 06, 07 and 08)

2.3 When? (Time: What moment did the problem occur?)

During operation on 04:00am. After the 4th day of production after cleaning/maintenance

2.4 Who? (People: Who is involved? Whom is affected? Can the problem be related to ability? What?)

Operator ability (level 2 on Skill Matrix): the guides may have been installed incorrectly after cleaning.

2.5 Which? (Trend: Is there a tendency in the occurrence of this problem?)

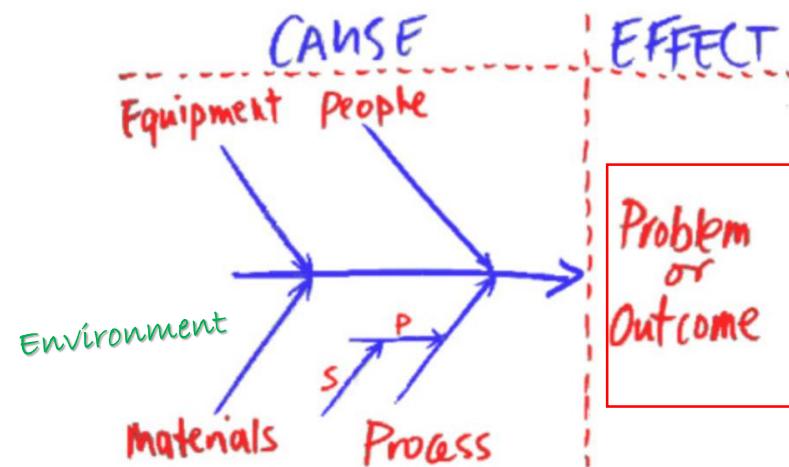
It occurs every time when the conveyor gets out of alignment

2.6 How? (Status: The change in relation to the original state or expected result)

The main conveyor SA0102 rose up on the side of the guide and started to lose parts on the product that is fed in CMY machines 06, 07 and 08.

- **Problem statement:** After the line cleaning, during the operation, the main conveyor SA0102 rose on the side of the guide and started to lose parts on the product that is fed in CMY 06, 07 and 08. It was observed that the conveyor left side was damaged. The issue may be related to operator ability if the guides were installed incorrectly and has a tendency to occur when the conveyor get out of alignment.

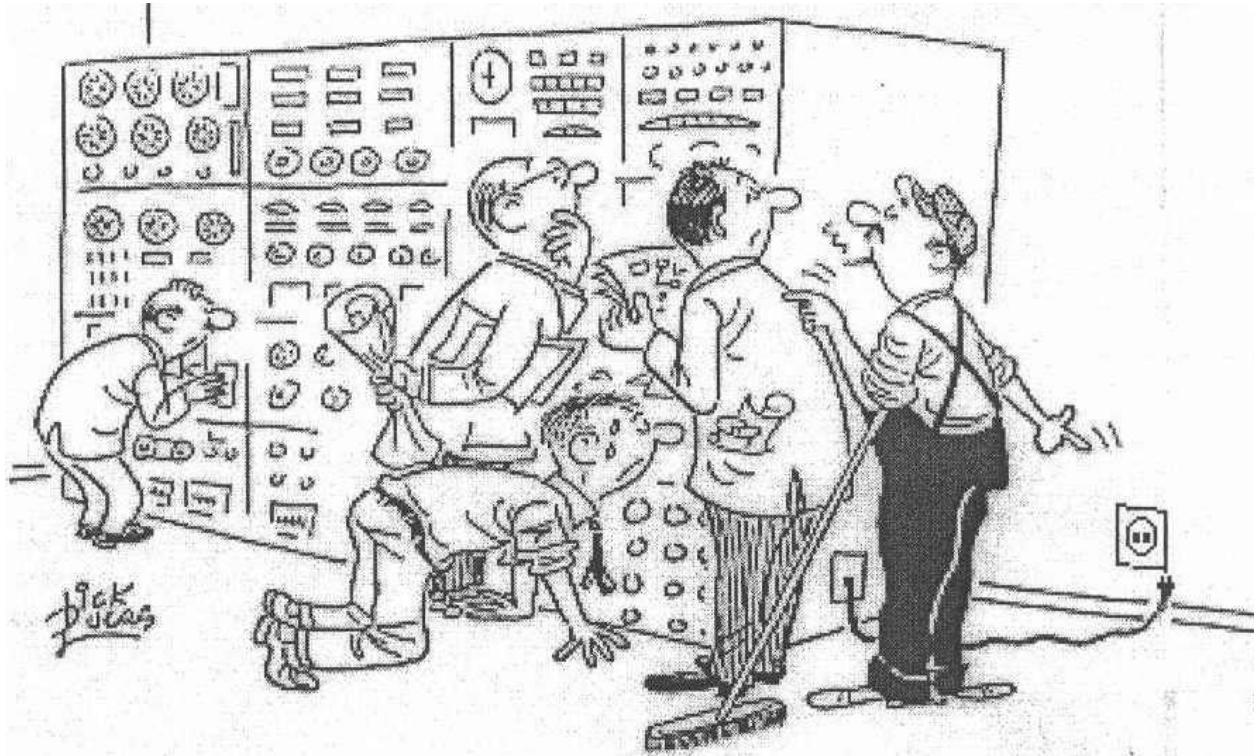
WHAT NEXT ? LOOKING FOR ABNORMALITIES



Fishbone Diagram

100% Participation to get ZERO losses

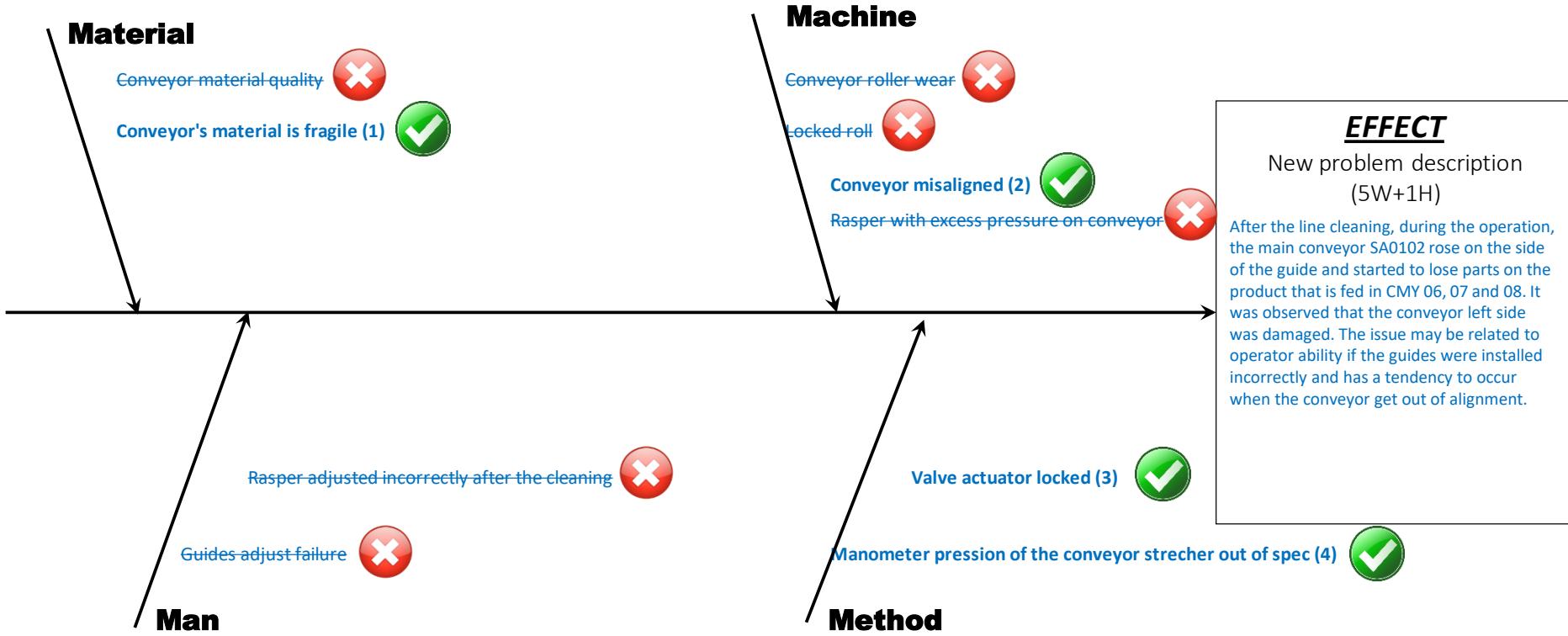
ROOT CAUSE ANALYSIS



*Do we really have right people involved
on analysis and solution?*

HOW TO CREATE FISH BONE DIAGRAM

Brainstorm all potential root causes of the problem with the team and prioritise them



FINDING ROOT CAUSE AND REVIEWING STANDARDS



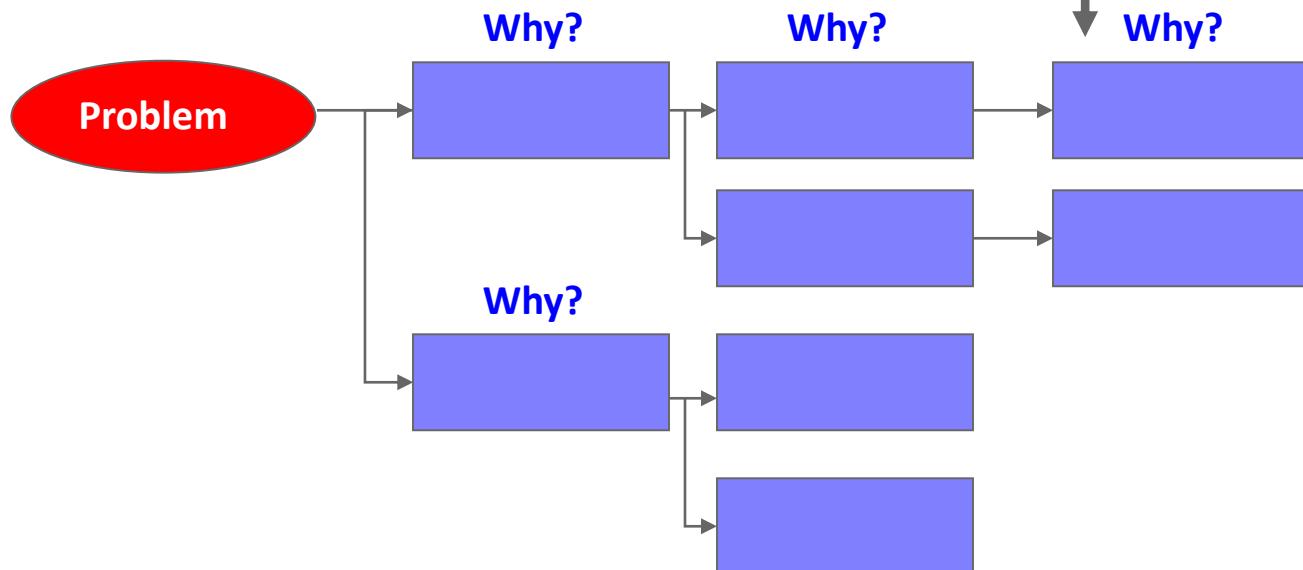
5 Whys

FINDING ROOT CAUSE AND REVIEWING STANDARDS

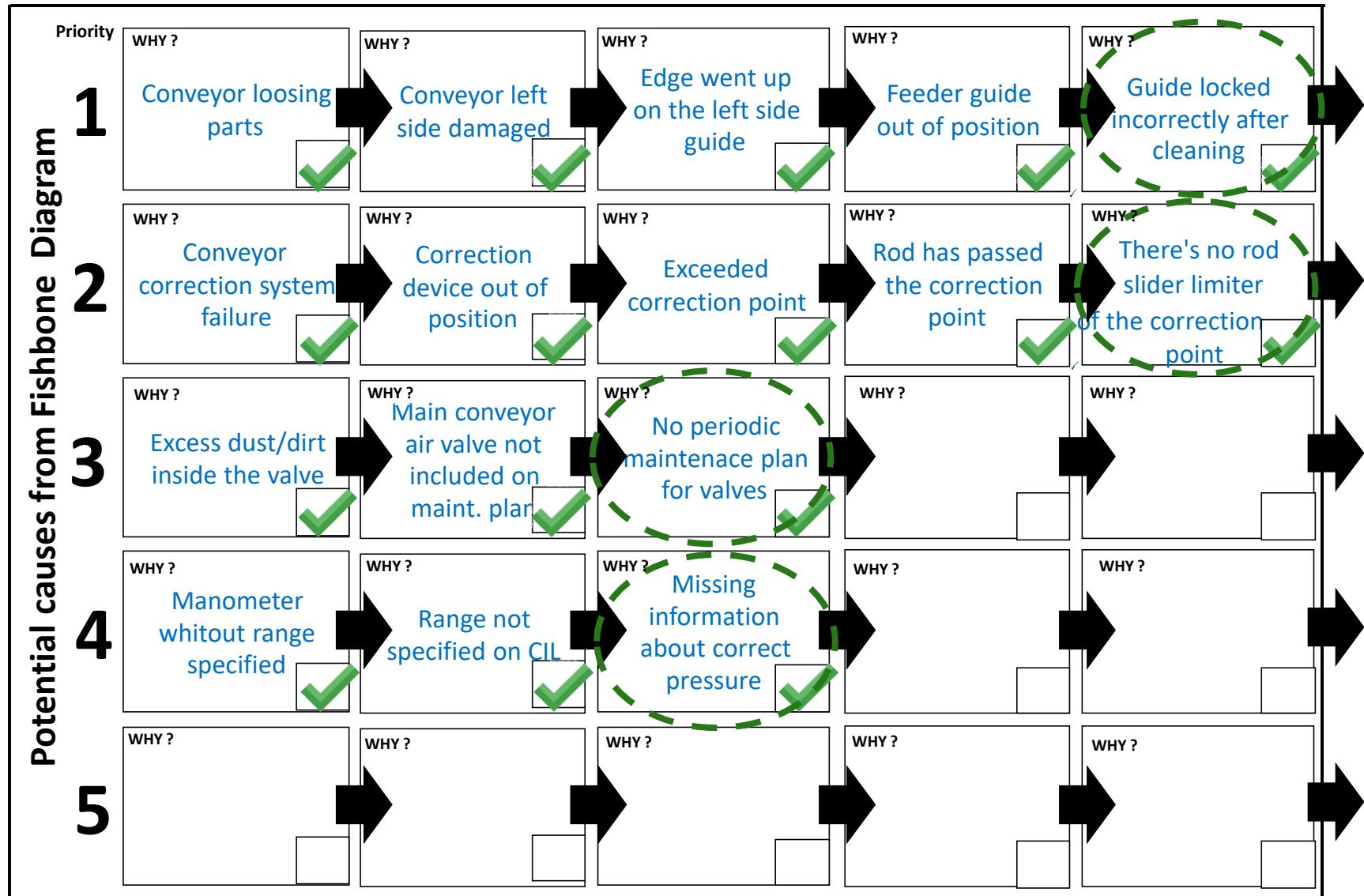
1. Bring the issues / abnormalities identified in the fishbone diagram and prioritized as potential cause. For each of them, apply 5 Why analysis to find root causes.

2. Always check for logical correctness by tracing phenomenon from last why.

3. Continue Why until factor leading to countermeasure to prevent recurrence is found (normally human failure related cause)



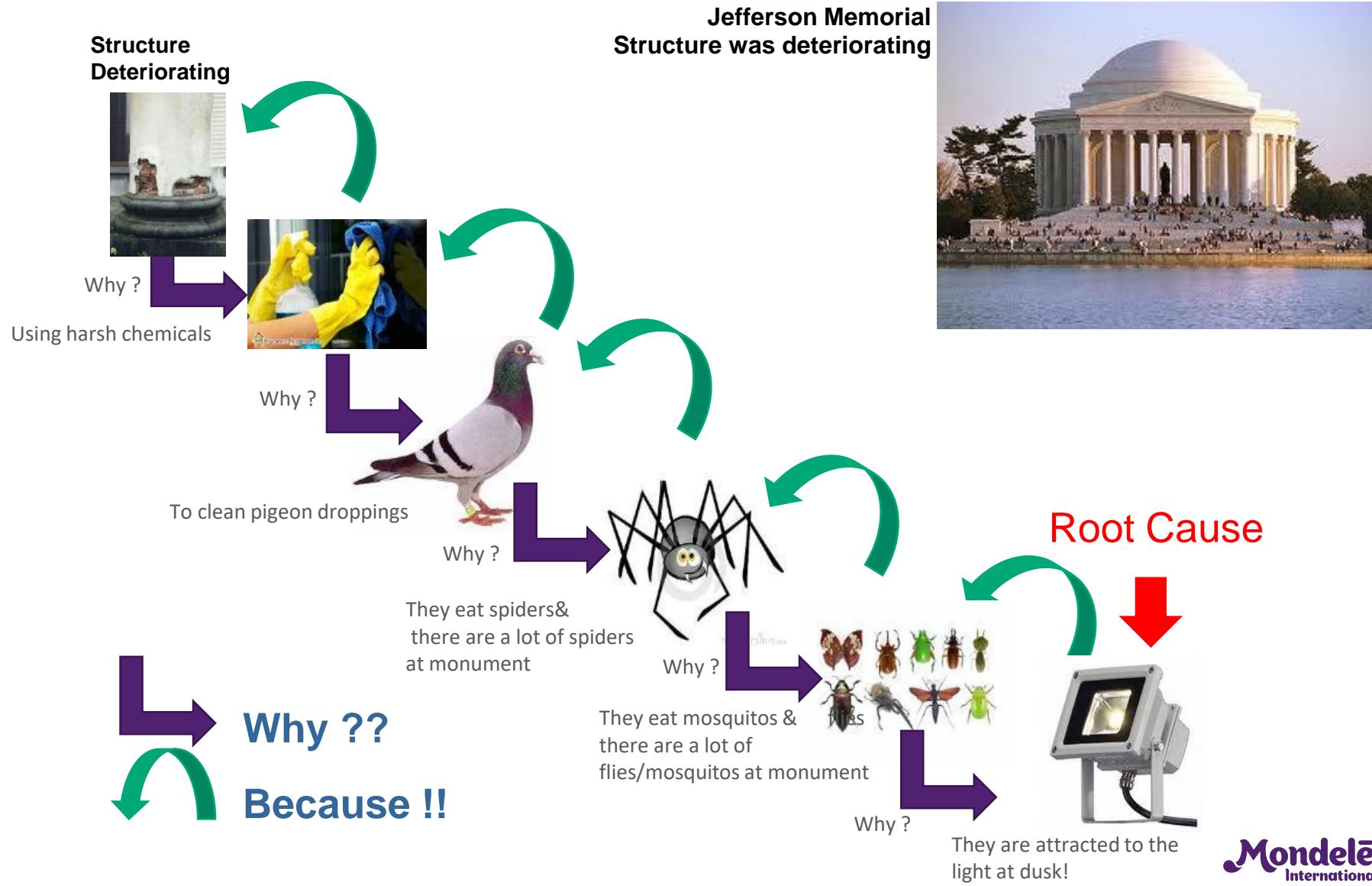
5WHYS EXAMPLE: MANUFACTURING CASE



POLL QUESTION 1

- Which of these options do you think is the best way to conduct a root cause analysis ?
- A/ Fix the issue like last time because you know what the issue was
- B/ Gather team of managers and expert in an office And brainstorm
- C/ Gather team of operators, technicians, process experts, encourage all ideas and follow a process
- D/ Ask the expert as he must know the answer

5 Whys Exercise - Jefferson Memorial



ACTING TO ERADICATE THE PROBLEM CAUSES

ACTION PLAN



Action Plan for Countermeasures

ACTION PLAN EXAMPLE

**ROOT
CAUSES**

	4. Actions: Containment or Root Cause elimination	5. Responsibilities	6. Status
	Write down the actions related to each root cause and specify if they are containment or root cause elimination	Name	Date
Guide locked incorrectly after cleaning	Create a checklist to use in startup after clean	Carla	27-jun
Lack of rod slider limiter of the correct size	A. Install limiter of correct size and position B. Install a safety sensor at each end of the conveyor belt C. Replace centerline of main conveyors	A. Ediclei B. Fábio/Daniel C. José Maria	30-mai
No periodic maintenance plan for valves	Include periodic inspection of the conveyor valves	Carla	30-jun
Missing information about correct pressure (manometer)	Install centerline on the pneumatic system manometer of main conveyor repair and include the manometer range on CIL	José Maria	26-jun

COMMON PROBLEM SOLVING PITFALLS

1. Poor problem definition (use of 5W+1H)
2. Jump to conclusions, not applying problem solving sequence and techniques
3. Blame people, ignore systems design/methods
4. Not confirming likely causes
5. Stopping at 2nd or 3rd why when it gets difficult to put right
6. Tackling problems without understanding of ideal state.
7. Failing to involve the right people, work beyond scope of team
8. Failing to execute and track effectiveness of solutions
9. Solutions not updated to SOP, Standard Operating Procedure
10. Knowledge and standards generate as result of RCA not passed on to all individuals involved on affected processes
11. Work towards elimination of issue: may need more than one cycle of analysis before issue is successfully eradicated
12. Checking where else the issue could be – what about other lines which have the same equipment
13. Not going back to verify corrective action is effective.

POLL QUESTION 2

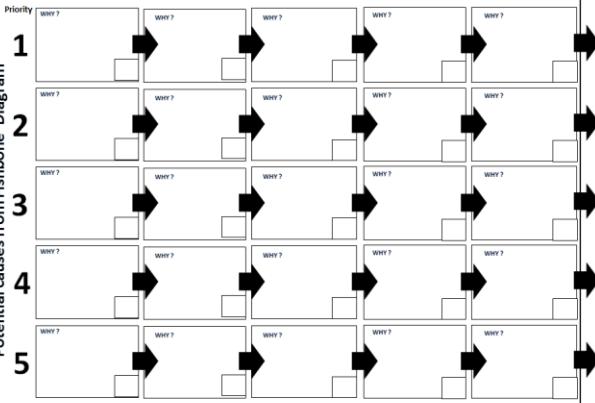
Problem: Metal filings were found in the bulk chocolate mass.

Which of these do you think is the most likely root cause of this issue ?

- A/ The pump that pumps the mass to the holding tank failed
- B/ The magnet wasn't strong enough
- C/ The pump had not been maintained
- D/ The pump had not be identified on the preventive maintenance plan

APPENDIX: MONDELEZ STD RCA TEMPLATE

Model A – recommended format for us to have consistent application, but there are others which do the same job. The key is to get to the root cause in a way you can understand

Mondelēz International		ROOT CAUSE ANALYSIS A3 FORM (simplified format)			Document #														
					Date 01/12/2017														
					Version 3														
					Page 1 of 1														
1. General Information	2. Define the Problem (5W1H)																		
1.1 Date:	2.1 What? (Material: What is wrong? What broke / failed? Component and its characteristics)																		
1.2 Function:	2.2 Where? (Location: which system / subsystem / position is the component of the break / failure / issue)																		
1.3 Area affected:	2.3 When? (Time: What moment did the problem occur?)																		
<input type="checkbox"/> Safety <input type="checkbox"/> Quality <input type="checkbox"/> Delivery <input type="checkbox"/> Cost <input type="checkbox"/> Sustainability <input type="checkbox"/> Morale	3.1 Fishbone (Ishikawa) Diagram: Brainstorm all potential root causes of the problem with the team and prioritise them from 1 to 5 (1 is the most important)																		
1.4 KPI affected:	2.4 Who? (People: Who is involved? Whom is affected? Can the problem be related to ability? What?)																		
1.5 Team leader:	2.5 Which? (Trend: Is there a tendency in the occurrence of this problem?)																		
1.6 Team members:	2.6 How? (Status: The change in relation to the original state or expected result)																		
		Material	Machine	EFFECT New problem description (5W+1H)															
		Man	Method																
3.2 Root Cause Analysis 5Whys		4. Actions: Containment or Root Cause elimination		5. Responsibilities	6. Status	7. Verification	8. Standardisation												
1. Select the top 5 potential root causes from step 3.1 and write them on the boxes on the left hand column. 2. Check for correctness of the 5 whys by reading the whole row and ensuring it makes logical sense. 3. Ensure every Why is validated (tick the small box on the bottom corner of each Why)		Write down the actions related to each root cause and specify if they are containment or root cause elimination		Name	Date	Ensure all actions are closed	Verify that the actions eliminated the problem												
						Verification starting date: <input type="text"/> Team: <input type="text"/> Verification - check results <table border="1" style="width: 100px; height: 50px;"> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </table> If the problem happens again, review RCA and update analysis.													Develop a standard to prevent the problem from re-occurring Update (Tick if required): <input type="checkbox"/> Skill matrix <input type="checkbox"/> Centerlining <input type="checkbox"/> SOP <input type="checkbox"/> SMP Develop (Tick if required): <input type="checkbox"/> OPL <input type="checkbox"/> Other: <input type="text"/>

APPENDIX – 5 WHYS EXAMPLES

Metal filings found in the chocolate	Glucose syrup delivered was too thick too pump	Incorrect shelf life on the finished good
Why ?	Why ?	Why ?
The pump failed from loading tank 10	Viscosity was not correct	Wrapping leg 5 printed the wrong date
Why ?	Why ?	Why ?
There was sheer causing metal to metal contact	The temperature of the delivery vehicle was too low	The operator set the wrong date on the machine
Why ?	Why ?	Why ?
The pump had not been maintained	Was not specified in the specification	Operator wasn't trained
Why ?	Why ?	Why ?
There was no maintenance plan for loading line 10	Wasn't deemed necessary addition to the spec	Had to get a temp because of permanent staff illness



Tip ! Often when you get to the 5th Why it can be down to a training, behavioural or competency issue.

WHEN DO WE REQUIRE YOU TO IMPLEMENT C&PA AND USE RCA PROCESS

- All programs in the *Supplier Quality Expectations (SQE) Manual* require that Corrective and/or Preventive Actions be taken in the event of non-conformances.

The requirements:

- The Supplier shall have an effective C&PA program tracking such actions to ensure that non-conformances in any program are addressed in an appropriate and timely manner.
- The Supplier C&PA program shall addresses a proper means of managing incoming customer contacts to enable an accurate, appropriate, and timely response.

In summary, when non-conformances are raised during MDLZ audits or assessments

WHEN DO WE REQUIRE YOU TO IMPLEMENT C&PA AND USE RCA PROCESS

In response to Quality Notifications being raised against you as a supplier.

A formalised process shall be in place to identify root cause for Quality Notifications (QNs) P1 and P2 as a minimum

Priority Level	Definition	Response Time Initial response from supplier should be within the due date. This includes response on CAPA proposed (where required) as well as correction implemented. Notification will not be closed until issue is resolved.
1	<u>An issue that poses a potential product safety issue (Microbiological, chemical or physical contaminants, allergens), regulatory impact, or a <i>high impact</i> quality concern</u>	3 days
2	<u>Includes a significant <u>quality issue</u> or <u>chronic/repeat quality issue</u> that could result in scheduling / production changes with <u>service levels impacted</u></u>	5 days
3	<u>An issue that impacts inventory and service levels. P3 QN's may also include other reasons for needing to hold product or material, unrelated to food safety or regulatory issues</u>	10 days

NOTIFICATION OF SIGNIFICANT EVENTS

RCA should be used to investigate causes of significant events that effect Mondelez. These can be but not limited to:

- Positive pathogen results in product or environmental swabs
- Inadvertent release of held product to MDLZ
- Identification of an unlabelled / undeclared allergen

**ENSURE YOU ARE FAMILIAR WITH THE NOTIFICATION REQUIREMENTS OF THE SQE
WHERE YOU MUST INFORM US !**

EXTRANEous MATTER CONTROL

Supplier Webinar 2019

EXTRANEous MATTER

What are Foreign Bodies?

- Foreign Bodies are extraneous matter not normally found in food.

- Consumer Dislike?



- Physical hazards include any potentially harmful extraneous matter.

- Dental damage
 - Laceration to gum/mouth
 - Choking



EXTRANEOUS MATTER

What is Extraneous Matter Management?

Extraneous Matter Management is about creating a manufacturing environment which prevents foreign objects being introduced into the product. Controls include raw materials (supplier control), equipment design, GMP and plant environment.

The site shall have an effective program to **prevent, detect, and control** extraneous matter:

A **risk assessment** to determine potential sources of extraneous matter, including:
Historical information of extraneous matter consumer complaints.

The Assessments must **consider all types of extraneous matter**.

Appropriate strategies for minimizing extraneous matter, based on assessments must be implemented

EXTRANEOUS MATTER

Minimizing Extraneous Matter Risk:

Designing the risk of extraneous matter out of the process (e.g. eliminating metal to metal contact on equipment, replacing metal screens with Nitex or equivalent)

Preventing introduction of extraneous matter into the product (e.g. GMP, equipment design, preventive maintenance, covers on tanks or conveyor belts).

- **Detection and removal** of extraneous matter (e.g. screens, filters, magnets, sieves, metal detectors, X-rays for minimizing extraneous matter, based on assessments.

EXTRANEOUS MATTER

Preventive actions:

- GMP (Operators, Raw materials, work in progress...)
- Maintenance (tools, equipment and line maintenance)
- Equipment design
- Environment, Sanitation



EXTRANEous MATTER

Preventive actions:

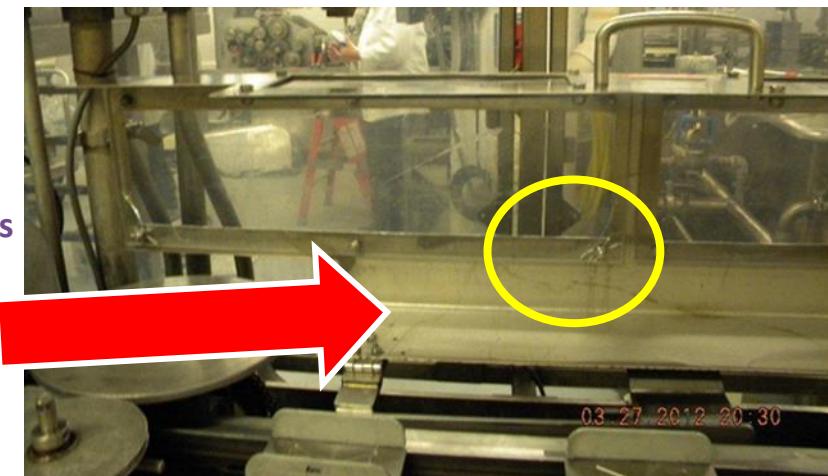
Do not use tape, cardboard, twist ties or wire for temporary repairs



Do not
improperly store
food contact
tools/brushes



Repair and
check hard
plastic & glass



EXTRANEOUS MATTER

Extraneous Matter Devices - Focus areas :

These devices shall be used in such a way to maximize their effectiveness.

- **Location** of the detection devices in the production line,
- **Procedures** to manage the devices,
- **Start-up set up** (e.g. check if magnet is in place; screen is properly seated in its housing; centrifuge is operating at required rpm's, etc.),
- **Frequency** of detection and rejection mechanism **verification** checks,
- **Limits** of acceptable and unacceptable results,
- **Abnormal findings** (shall be reported and documented)*,
- **Corrective action** are taken where necessary,
- Devices are periodically **calibrated**.

* when the device is a metal detector or X-ray. and considered a CCP, a critical limit for the amount of rejected material confirmed positive for metal must be established.

POLL QUESTION 1

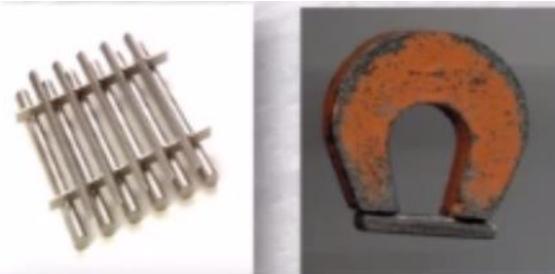
Do you know how many alerts for Extraneous Matter contamination have been reported in the EU Rapid Alert System for Food and Feed during 2017:

- A/ 116
- B/ 30
- C/ 77

EXTRANEous MATTER

What devices do we have to control extraneous matter?

Magnets

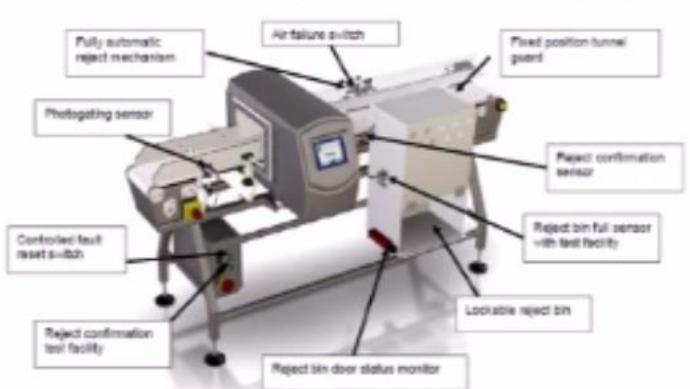


- 1. Non-ferromagnetic materials and volume
- 2. Speed of flow

Limitations

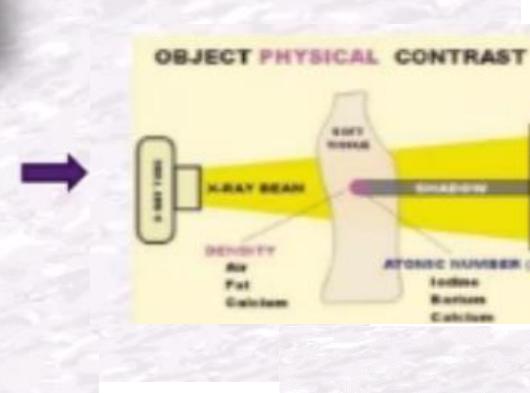
1. SST	Depends
2. Aluminum	X
3. Copper	X
4. Bronze	X
5. Iron Steel	✓
6. Nickel	✓
7. Brass	X
8. Teflon	X

Metal Detectors



- 1. Types of Metal
- 2. Shape & Orientation
- 3. Aperture Size
- 4. Metal position in aperture
- 5. Environmental Conditions
- 6. Inspection Speed
- 7. Product Characteristics

X-Rays



Contaminant	Specific gravity	Detectability
Golden	19.3	Easy detectable
Lead	11.3	
Copper	8.98	
SS	7.98	
Fe	7.15	
Aluminum	2.71	
Glass	2.4 - 2.8	
Stone	2.3 - 3.0	
Bone	2.2	
Polycarbonate	1.2	
Nylon	1.15	
Water (Food)	1	
Polypropylene	0.9	
Wood	0.65	
Insects	0.58	
HSI	0.32	

EXTRANEous MATTER

Metal detector requirement :

Sensitivity

- Detection equipment settings shall be determined and applied to achieve the **most sensitive** level possible to provide maximum protection from metal contamination.

The detection sensitivity under production conditions must be better than 5mm for all metals.

- Guideline for metal detection unit: capable of detecting and rejecting pieces equal to or less than:

1.5mm for ferrous

2.0mm for non-ferrous (brass)

2.5mm for stainless steel (316 grade).

EXTRANEous MATTER

Metal detector requirement :

- **Functionality verification** for electronic detection and rejection devices shall take place during production with the normal product flow.
 - **2 passes of each test piece (ferrous, non-ferrous and stainless steel) must be detected and rejected.**
 - Consideration should be given to using a combination of leading edge and trailing edge passes where possible (but think about product length)
- Minimum frequency for system verification shall occur at the following times:
 - **Start up** (e.g. the beginning of each shift or production start up if part way through a shift)
 - **End of each shift**, after a **production change** (e.g. product or primary packaging changeover),
 - **Following any repairs, maintenance or adjustments,**
- On a **regular basis** as determined by the site (maximum every **4 hours**).
- **If a metal detector fails to detect a test piece, the material produced since the last successful metal detector verification shall be placed on category 2 hold.**

EXTRANEous MATTER

Factors that Limit Sensitivity of Metal Detector :

- Type of Metal



Metal Type	Magnetic	Conductivity	Ease Of Detection
Ferrous Chrome Steel	Magnetic	Good	Easily Detected
Non Ferrous Brass, Lead	Non Magnetic	Good / Excellent	Relatively Easily Detected
Stainless Steel	Usually Non Magnetic	Poor	Relatively Difficult to Detect

- Shape and Orientation



- Aperture size/ Metal position in the aperture



	A	B
Fe	Easy	Difficult
Non Fe	Difficult	Easy

- Environmental conditions : Electrical interferences, plant vibration, temperature fluctuations



- Inspections speed



- Product characteristics : wet, dry, salty, acid..

EXTRANEOUS MATTER

Usage and Placement of Extraneous Matter Detection Devices :

- The **metal or X-ray detection** must be at the end of the production line after product packaging.
 - If not feasible or practical the detector shall be placed before, but as close as is practical to the point where the product enters the package
 - A **risk assessment** must be documented
- Extraneous matter control devices must be **validated** before the use to confirm the effectiveness to remove the targeted foreign body (Rejection rate and False positive rate should be calculated)

POLL QUESTION 2

What is the Extraneous Matter Management definition? Select correct answer:

- A/ A documented risk assessment, which is part of the HACCP plan of the production site
- B/ The control of Extraneous Matter which can pose a concern for human health
- C/ A system of control of Extraneous Matter by design, prevention, detection and removal of any foreign object not normally present in food



PEST MANAGEMENT



OBJECTIVES

- Be familiar with Mondelez requirements
- Understand and identify the risks associated with pests.
- Review the performance of outsourced services.
- Perform inspections and audits.
- Initiate appropriate corrective measures in case of infestation.

THE ICEBERG



WHAT IS PEST MANAGEMENT?

- A program to prevent the entry of pests and to remove the living conditions that may support their survival and reproduction.
- Integrated Pest Management is not the application of a single reactive method, but a combination of measures, evaluations, decisions and escalation protocols in an economically and ecologically sound manner. Includes:
 - Design and maintenance of all assets
 - Exclusion through good housekeeping
 - Inspection and monitoring programs
 - biological, physical, chemical pest control methods

A WRITTEN PEST MANAGEMENT PROGRAM

Why?

To monitor and control pest activity in the facility and the surrounding area effectively.

What should be included? :

- ✓ Pest management plans, methods, schedules
- ✓ Inspection procedures and frequencies.
- ✓ Required documentation of pest activity log and analysis of records for trends in activity.
- ✓ Corrective actions for increased trends /activity.
- ✓ Training requirements.
- ✓ A map showing the location of pest control devices, such as indoor rodent traps, glue boards, insect light traps, outdoor bait stations, and pheromone traps.
- ✓ Records of application of *pesticides*.

PEST MANAGEMENT PROGRAM OBJECTIVE

Efforts must be made to keep pests out of the building.

It is necessary to take measures to prevent the penetration of pests into the building, through the control of external territory.



Mouse

RODENTS MANAGEMENT



Although they are the same size as many insects', mouse droppings contain hair and have pointed ends



A family of 6 mice in a plant can grow to 50-60 mice in only 90 days.

- No water source needed
- Fits through an opening of 0.5 cm / 0.2 inches
- Eats at different places (up to 30)
- 3-4 g. of food / day is sufficient,
Thus, a mouse can live completely hidden from us before infestation starts.

RODENTS MANAGEMENT

Rat

- Needs water sources
- Fits through an opening of 1.25 cm
- Active at night
- Afraid of new situations
- Rats usually live on the outside and only enter the plant to find food.
- A rat is a very clever, social living in a hierarchical system.



RODENTS MANAGEMENT

- Pest control activities shall be performed by certified pest control contractors or personnel with equivalent training.
- Non-chemical methods, such as traps *or glue-boards (in some countries this is not allowed; if it is, the trap needs to be checked every day)* are preferred to control rodents inside manufacturing facilities and warehouses.

Rodenticides should be avoided in GMP areas.



PESTICIDES APPLICATION. RULES AND REQUIREMENTS

- The supplier must follow local legislation when applying pesticides.
- The employees must pass the corresponding training.
- The Supplier shall ensure that appropriate measures are taken to prevent pesticides from contaminating food products.
- Residual insecticides shall not be applied as a fog or an aerosol. Pesticide use and application shall be strictly controlled and in accordance with the label.



The labels and material safety certificates or similar documents, shall be available and well maintained at the facility where the pesticide is used.

Info to be indicated in the corresponding documents:

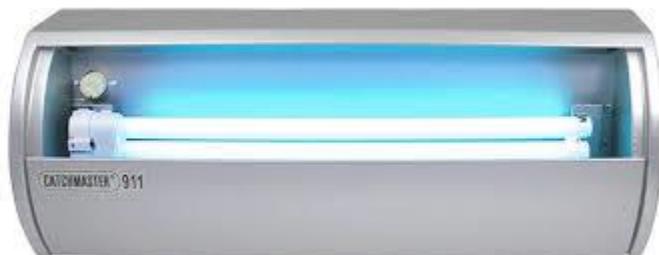
- Pesticide name
- Tracking information (lot numbers)
- Amount used
- Application Method
- Pest against which the treatment is carried out/Target pest
- Processed area
- Processing date / time
- Shelf-life

PESTICIDES APPLICATION. RULES AND REQUIREMENTS

- Disposal of unused pesticides and of empty pesticide containers must comply with applicable regulatory requirements.
- Baits shall be used in situations where a specific pest is the target. Where used, bait must be placed in secured bait stations (e.g. securely anchored to the ground or building). Throw packs and loose rodenticide baits such as pellets and meals are not permitted. Old bait shall be discarded periodically, and replaced with fresh bait.
- Corrective actions must be performed (contractor and plant)

INSECT LIGHT TRAPS (ILT)

- It shall be utilized as surveillance devices to monitor flying insect activity.
- They are not considered to be a control method.
- Light bulbs from the insect light traps must be kept clean and be replaced regularly (minimum annually; *recommendation: in the beginning of the season*) to ensure maximum efficiency.
- The insect light traps shall be installed in the receiving or warehouse areas close to entrances, but shall be located so as not to attract insects into the building.
- Trap contents must be evaluated monthly.



DATA ANALYSIS:

What should I look for, minimally, to detect pest infestation:

- To follow 0 tolerance target
- Trends
- Are rodents caught? Where? How many?
- Number of pheromone / light traps for insects?
- Pest Control Reports
- Pesticide Treatment Log

Documented corrective actions:

- Increase the number of traps
- Identify potential penetration zones
- Actions taken to troubleshoot (including the CAPA verification)

POLL QUESTION 1

- If you didn't find any pest activity in 2018 it is not required to monitor further the activity in 2019.
- A/ True
- B/ False

PESTS ACTIVITIES EVIDENCE

Rodents:

Rodents droppings

- Rodents traces
- Bite traces
- Nests
- Rodents themselves



Insects

- Insects traces
- Light traps full with insects
- Insects themselves



Birds

- Birds droppings
- Large number of feathers
- Nests



PLANT INSPECTION - WHAT TO FOCUS ON?

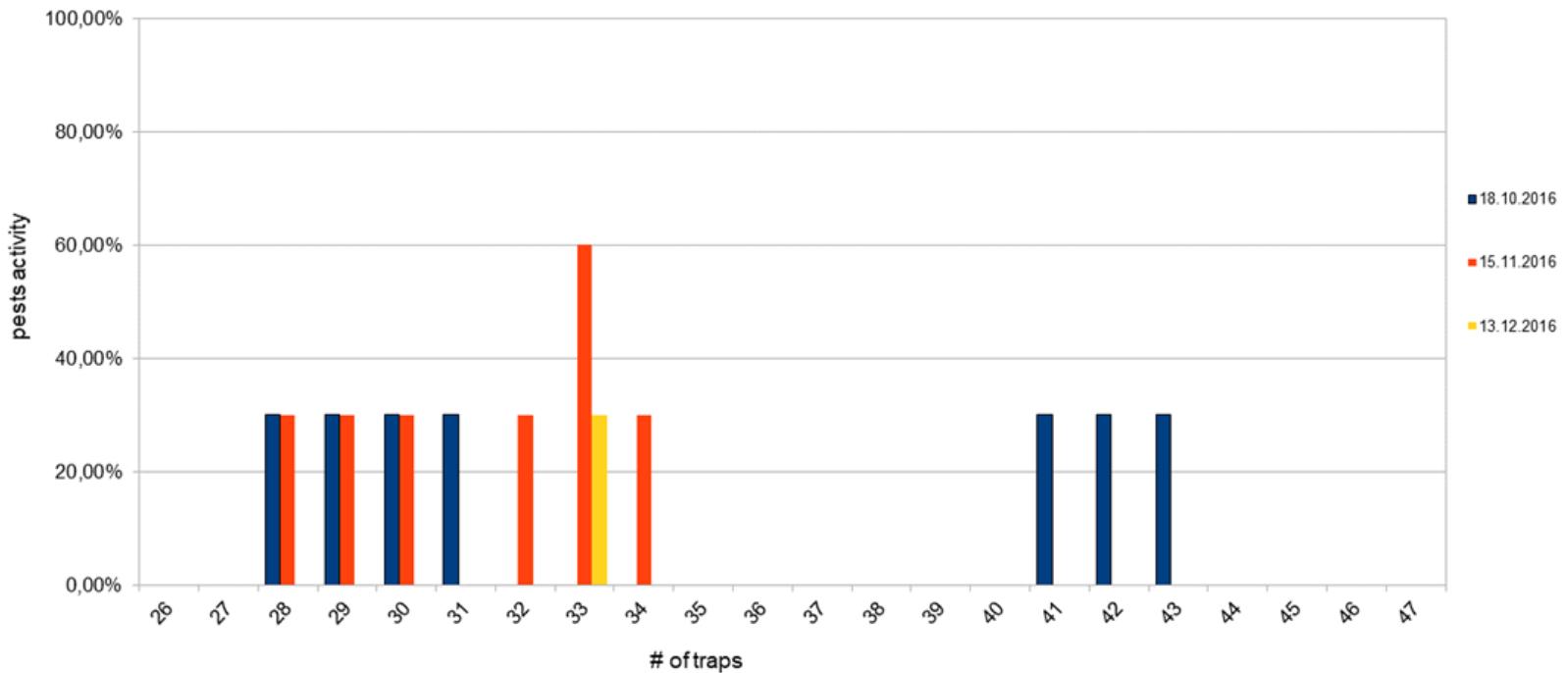
- Areas (boxes, old equipment): dark places, warehouses (back side of the racks)
- Pallet inspection,
- Tamper-proof traps with bait sturdy construction, securely installed.
- Type of bait used (briquettes) - outside
- Types of traps and locations
- The location of the light traps for insects
- Storage of pesticides (marked, inventory taken, locked, access to the area restricted)
- Site representative(s) (responsible for the 3rd pest Company activities) including audit shadowing

PREVENTION OF PESTS PENETRATION

- Doors, lids, windows are protected with screens and tightly fixed.
- Holes in walls for pipes are sealed.
- Windows and lids that are subject to opening must be closed with grid.
- Nearby area should be kept clean, be free from metal scrap, etc.
- Sanitary rules should be observed.
- Waste areas should be kept clean, all garbage should be stored outside

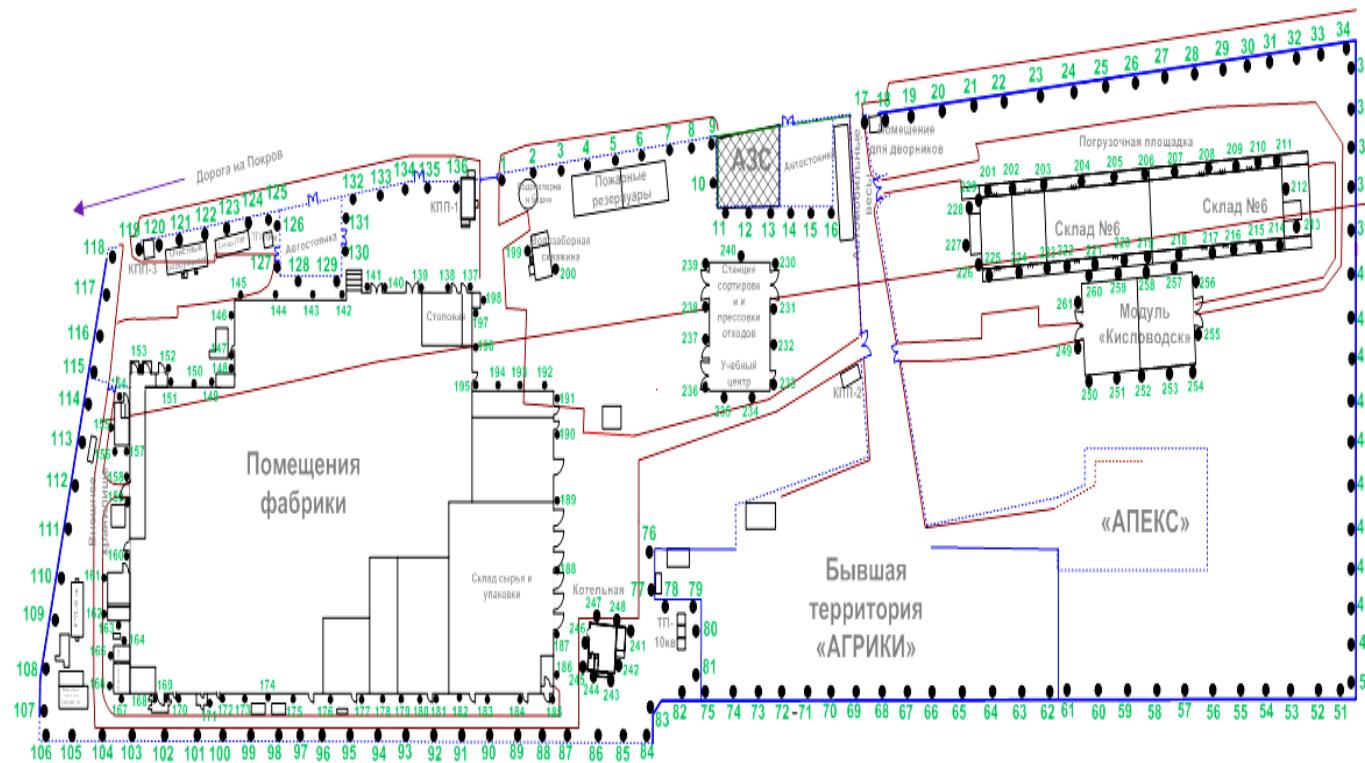
TRENDS

Pests activity in the traps: # 26-47
Finished Goods Warehouse, Production 1st floor



RODENTS MANAGEMENT

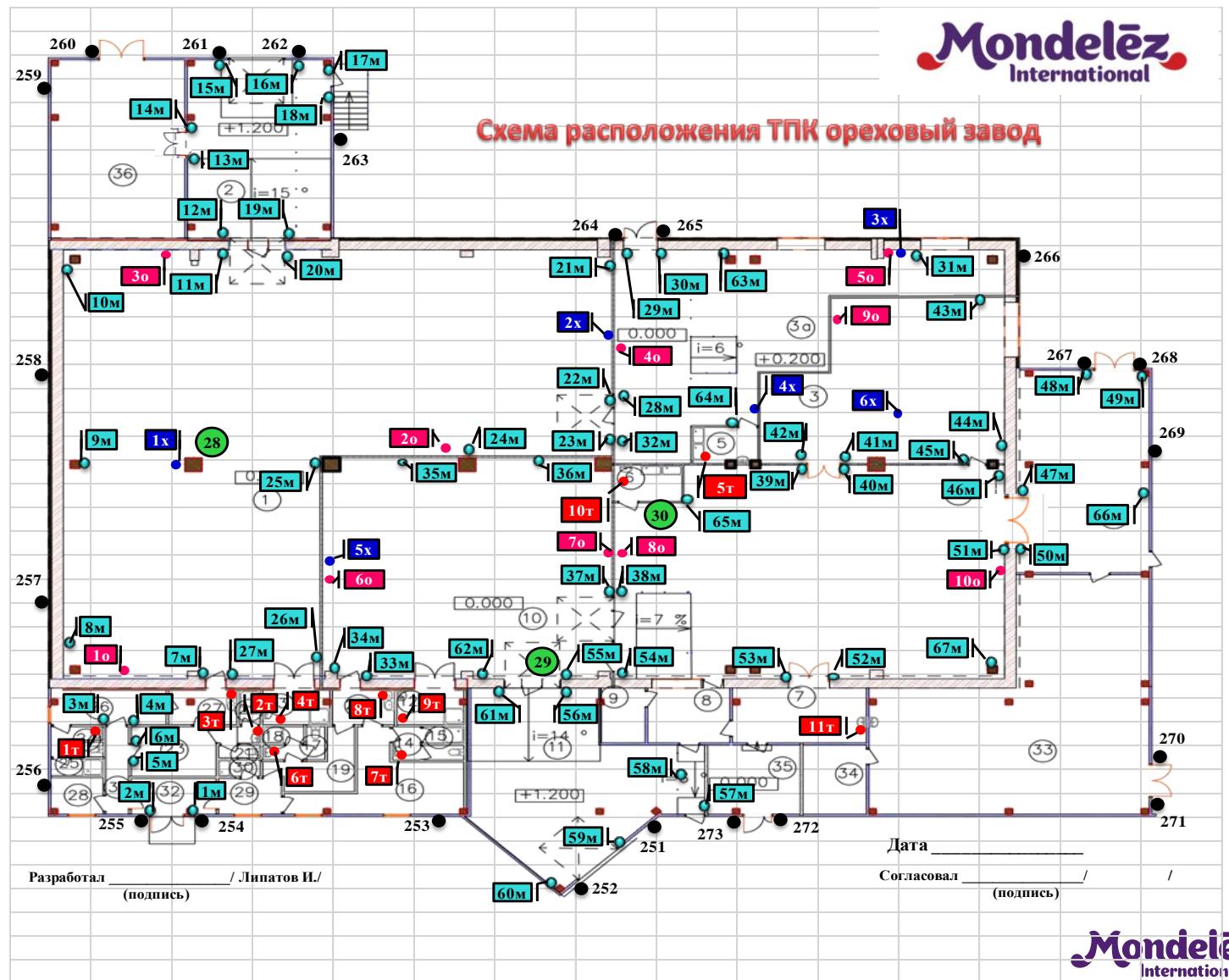
Pictures with the circle of defence



EXTERNAL PERIMETER DEFENCE

RODENTS MANAGEMENT

INTERNAL PERIMETER DEFENCE (RODENTS AND INSECTS)



POLL QUESTION 2

- In case Pest control activities are being performed by an External company (contractor) there is no need in site/plant employees involvement as it is the Contractor's total responsibility.
- A/ True
- B/ False



ALLERGENS

Supplier Webinar 2019

Mondelēz
International
SNACKING MADE RIGHT

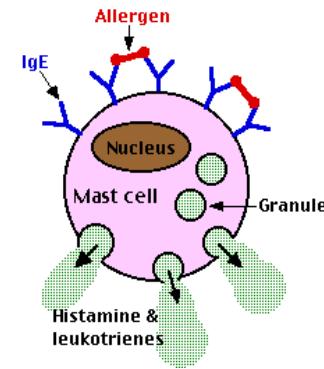
WHAT IS AN ALLERGY?

- Food allergy always involves the activation of the body's immune system – it wrongly identifies harmless substance as being a threat
- Harmless substance = allergen (protein)
- Estimated food allergy in Europe, USA, Canada and Australia
1 – 2% adults; 5 – 8% children*
- Perceived allergy in those countries
>30% adult population!



DEFINITIONS – REMINDER

Food allergy: The immune-mediated state of hypersensitivity resulting from exposure to a food-borne allergen (usually a protein or glycoprotein). Normally developing serious reactions and even causing deaths.

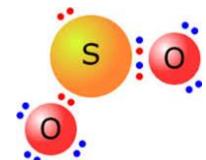


Carry over: Traces of product from the previous product run which cannot be adequately cleaned from the product line due to technical limitations.

Cross Contact Contamination: Traces of products or raw material which may, through current practices, come into contact with products produced on a separate line or in a separate processing area.

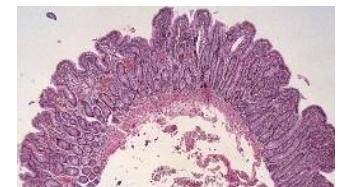
FOOD INTOLERANCE, AVERSION & SENSITIVITY

- Food intolerance
 - Does not involve the immune system
 - Reactions less severe (not fatal)
 - MDLZ MSI (cereals containing gluten)
- Food aversion
 - Psychological condition (don't like it)
- Food sensitivity
 - Reaction to chemical element of food (caffeine, aspartame)
 - Can have symptoms similar to allergy
 - MDLZ MSI (sulphites)



COELIAC DISEASE

- Auto-immune condition
- Triggered by sensitivity to gluten in cereals
- Estimated coeliac disease worldwide (Europe, North America, Middle East, India)
 - Many (up to 75% not diagnosed)
 - 0.5-1% adults
 - up to 2-3% in Scandinavia / Ireland
- Other reactions to wheat
 - Wheat allergy
 - Wheat intolerance



SYMPTOMS ASSOCIATED WITH FOOD ALLERGY

- Oral allergy syndrome
- Nettle rash or urticaria
- Swelling – particularly lips, mouth and throat
- Difficulty in swallowing or speaking
- Abdominal pain, diarrhoea, nausea or vomiting
- Breathing difficulties (asthma strongly linked to severe allergy)
- Sudden feeling of weakness (drop in blood pressure)
- Collapse, unconsciousness
- And in the most severe cases – ANAPHYLACTIC SHOCK can be **FATAL**



FOOD ALLERGEN CATEGORIES

- Crustacean
 - Eggs
 - Fish
 - Milk e.g. Cows, Goats, Sheep's
 - Molluscs
 - Peanut
 - Seeds- Sesame Seeds
 - Soybean
 - Wheat
 - Lupines
 - Sulphites²
- Tree Nuts
 - Almond
 - Brazil Nut
 - Cashew
 - Hazelnut (Filbert)
 - Macadamia Nut
 - Pine Nuts (Pinyon)
 - Pistachio
 - Pecan
 - Walnut
 - Hickory ¹
 - Chestnut ¹
 - Celery
 - Mustard

¹ **Hickory and Chestnut** not included on EU Allergen List according to EC Regulation No 1169/2009

² **Sulphites** are not true allergens

WHAT MAKES A FOOD 'ALLERGENIC'?

- True allergens = always proteins
- Most allergen incredibly stable molecular structures
- Some resistant to processing
 - Heat treatment
 - Mechanical
 - Fermentation
 - Some rendered 'more' allergenic

POLL QUESTION 1

Which sentence is true ?

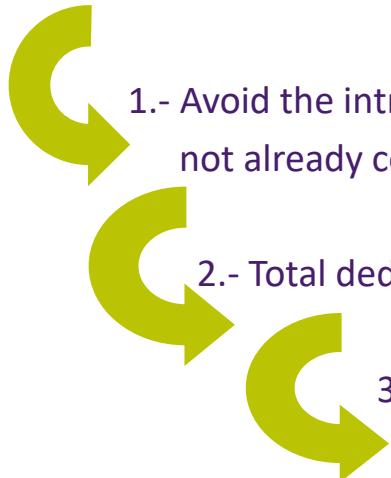
Select correct answer:

- A/ Crustacean, egg, milk doesn't belong to allergens
- B/ Food allergy always involves the activation of the body's immune system

ALLERGEN MANAGEMENT

What can we do to manage allergens?

Based on a hierarchy of controls:



- 1.- Avoid the introduction of an allergen into a facility that did not already contain the allergen.
- 2.- Total dedication and segregation (of lines where possible) or equipment.
- 3.- Extensive, well-documented cleaning and inspection procedures to prevent allergen cross-contact or carryover.
This program also needs to be validated.
4. - If the risk still present a precautionary label statement should be used.



AVOIDANCE OF INTRODUCTION

- Physical barriers:
- Separate reception and storage areas
- Dedicated manufacturing areas within the factory:
 - Air extraction/filtration systems
 - Control of personnel, packaging materials, ingredients and finished products
- Identification of shared equipment and its ability to be dismantled



AVOIDANCE OF INTRODUCTION

- Allergens should be designed-out:
 - Use non-allergenic substitutes
 - Avoid cross-contamination from other lines or other production areas

Ensure a safe raw materials supply:

- Audit suppliers' allergen management program
- Contract/Specification review
- Notification of any formulation change

Training of personnel:

- Allergen awareness training is to be performed annually.



AVOIDANCE OF INTRODUCTION

- Production scheduling:
 - Avoid manufacturing carry-over
 - Schedule allergen-containing products last in the production sequence
 - Schedule all products containing the same allergen in the same run
 - Schedule long runs of allergen-containing products
 - Provide sufficient time to do a thorough allergen clean
- Rework handling e.g. allergen product into non-allergen product
- Packaging handling.



LABELING

SQE Requirements

- All allergens should be clearly labeled;
- Where a **new allergen** is identified in a product where it was not previously present, and is therefore not labeled (e.g. discovery of an allergen cross-contact or change to the allergen profile of a raw material), MG **must be notified immediately.**

Useful links:

1. <https://collaboration.mdlz.com/sites/globalqualitysupplierauditing/Supplier%20Auditing%20Policies%20Expectations%20%20Manuals/SQE%20final%20version%20April%202013.pdf>
2. <https://collaboration.mdlz.com/sites/globalqualitysupplierauditing/Supplier%20Auditing%20Policies%20Expectations%20%20Manuals/SQE%20final%20version%20April%202013.pdf>

POLL QUESTION 2

What should be implemented to avoid cross-contamination coming from adjacent lines with different allergen profiles? Select correct answer:

- A/ to provide segregation of tools and equipment
- B/ nothing is required
- C/ provide sufficient time to do a thorough allergen clean

QUESTIONS?

THANK YOU

MERCI / TEŞEKKÜR EDERİZ / DANKE / GRACIAS / OBRIGADO /

DZIĘKUJĘ / GRAZIE / ΕΥΧΑΡΙΣΤΟΥΜΕ / СПАСИБО

Next steps:

We have collected all your questions throughout the webinar

The team will answer them and return a Q&A style document to you along with the presentations

You can also reach out to your usual Supplier Quality contact should you require further assistance

Support information is on our portal:

<https://www.mondelezinternational.com/en/Procurement.aspx>

