

# Mondelez International Supply Chain Management for Materials of Potential GMO Origin in EU and Eastern Europe, Middle East and Africa (EEMEA) Regions





# Mondelez International Corporate Position on Crop Biotechnology & Genetically Modified Ingredients:

At Mondelez International, we think crop biotechnology can play an important role in food production. At the same time, we know that consumers' views about ingredients developed through biotechnology – also known as genetically modified (GM) ingredients – vary around the world.

We consider a number of factors when deciding which ingredients to use in our products. The most important are safety, regulatory and public acceptance.

Public acceptance of GM foods and ingredients in Europe and some countries in Eastern Europe, Middle East and Africa (EEMEA) is lower than in some other geographies. Europeans predominantly reject GM foods.



# General context of GM Ingredients in Europe (MEU), Eastern Europe, Middle East and Africa (EEMEA) regions:

It is the obligation of suppliers to Mondelez International to comply with all GM requirements, as appropriate.

There is a differentiated approach for GM management requirements in Mondelez Europe (MEU) and Mondelez Eastern Europe, Middle East and Africa (EEMEA) Regions.

Our decision how to manage GM ingredients is made on a market-by-market and is based on:

- Fact-based scientific consensus about safety;
- Local regulatory approval for use;
- Our strict safety and quality criteria; and
- Consumer acceptance.

Expectations are driven based on location of where the material is supplied to (receiving site) and final product is sold, not where the supplier is located.















# GM management requirements in MEU & EEMEA have been re-assessed.

### Rationale:

Increasing prevalence of GM varieties in global trade and continued research & science progress made us to take a fresh look at our GM management requirements.



GM cert 2x/a for GM implicated components

GM cert depending on the GMP prevalence risk and composition % of GM implicated components





# Mondelez International GM Certification Requirements (MEU)

## **HIGH Prevalence Risk**

## **MEDIUM Prevalence Risk**



Soy: all origins



Maize: all origins, excluding USA, Brazil, Argentina & Canada



Maize: from USA, Brazil, Argentina & Canada



Cotton: all origins



Rice: from China



Canola: all origins

**Major** component Ingredient,

> 50%

of material composition excluding carriers

Certificate per each batch:

Cert ID Certificate + TCC
OR
Non GM certificate from approved method/lab

**Certificate twice / year:** 

Cert ID Certificate + TCC
OR

non GM certificate from approved method/lab

(as currently)

Minor component Ingredient

< 50%

of material composition

and all carriers

**Certificate twice / year:** 

Supplier is Cert ID Certified + TCC
OR

non GM certificate from approved method/lab (as currently)

# Certification / Testing requirements (MEU)

	DECLARATION OF ORIGIN	> 50%	< 50%	
soya	no need	Certificate per each batch: Cert ID Certificate + TCC OR Non GMO certificate from approved method/lab		
maize	contains exlusively maize not USA, Brazil, Argentina nor Canada origin	Certificate 2 per year: Cert ID Certificate + TCC OR Non GMO certificate from approved method/lab Certificate per each batch:		
	maize from USA, Brazil, Argentina or Canada; or no declaration of origin	Cert ID Certificate + TCC OR Non GMO certificate from approved method/lab		
cotton	no need	Certificate 2 per year: Cert ID Certificate + TCC OR Non GMO certificate from approved method/lab	Certificate 2 per year: Cert ID Certificate + TCC OR Non GMO certificate from approved method/lab	
canola	no need	Certificate 2 per year: Cert ID Certificate + TCC OR Non GMO certificate from approved method/lab		
rice	contains exlusively rice not China origin contains rice from China;	Certificate 2 per year: Cert ID Certificate + TCC OR Non GMO certificate from approved method/lab  Certificate per each batch: Cert ID Certificate + TCC OR Non GMO certificate from approved		
	or no declaration of origin	method/lab		

 Where prevalence risk level is determined by country of origin (i.e. for maize/corn and rice) declaration of origin has to be provided by supplier with each delivery

# Mondelez International GM Certification Requirements (EEMEA)

### Each raw material is rated according to:

- its composition and the country of origin of the implicated ingredient
- composition % of GM ingredient at risk (<50% and >50%)

#### EEMEA countries are divided into 4 clusters:

- 1. Turkey (detectability based, 0 GM tolerance)
- 2. Russia, Ukraine (traceability based)
- 3. Saudi Arabia, Bahrain, South Africa, Egypt, Morocco (other GM legislated countries)
- 4. Algeria, Pakistan, Ghana, Nigeria, Swaziland (GM non-legislated countries)













# Mondelēz International GM Certification Requirements (EEMEA)

## **Cluster 1 – Turkey (detectability based, 0 GM tolerance):**

	HIGH Prevalence Risk Raw Materials	MEDIUM Prevalence Risk Raw
		Materials
Major component Ingredient	non GMO certificate from approved	non GMO certificate from
( > 50% of material composition )	method/lab	approved method/lab
excluding carriers	<u>Each batch</u>	<u>Twice/year</u>
Minor component Ingredient ( <50% of material composition ) and all carriers	non GMO certificate from approved method/lab <u>Twice/year</u>	

# Cluster 2 - Russia, Ukraine (traceability based; current thresholds 0,9% (RU) and 0,1% (UA) for adventitious GM contamination):

	HIGH Prevalence Risk Raw Materials	MEDIUM Prevalence Risk Raw	
		Materials	
Major component Ingredient	Supplier is Cert ID Certified + TCC per	Supplier is Cert ID Certified + TCC	
( > 50% of material composition )	batch OR	twice/year OR	
excluding carriers	non GMO certificate from approved	non GMO certificate from approved	
	method/lab	method/lab	
	<u>Each batch</u>	<u>Twice/year</u>	
Minor component Ingredient	Supplier is Cert ID Certified + TCC - Twice/year		
(<50% of material composition)	OR		
and all carriers	non GMO certificate from approved method/lab		
	<u>Twice/year</u>		
the power of big. and small.			

# Mondelēz GM Certification Requirements (EEMEA)

Cluster 3 - Saudi Arabia, Bahrain, South Africa, Egypt, Morocco (other GM legislated countries):

- Test frequency will be determined based on Risk Assessment performed by Quality and Regulatory and communicated to suppliers.
- For deliveries to countries not listed in this document appropriate GM certifications also may be requested. Whenever appropriate, suppliers will be contacted on case-by-case basis.
- Based on local GM legal requirements, non GM certificate from approved method/lab may be requested also for other ingredients not classified as high and medium risk (e.g. sugar beet).
- In specific cases (e.g. export of products to countries with stricter GM regulations), other requirements may be applicable. Whenever appropriate, suppliers will be contacted on case-by-case basis.













# **General Requirements for Suppliers**

Suppliers of materials containing ingredients: soy, maize, canola/rapeseed, cotton, and rice, including derivatives, are expected to have systems, processes & procedures in place to assure GM compliance. This shall include adequate management potential GM crop cross-contamination.

According to the Risk Prevalence Assessment, results from the previous year and new GM crop areas, Category Quality may request a review of the Traceability / GM management system with the supplier. Procurement shall support the process. Additionally, the supplier's Traceability / GM management system in place may also be reviewed during the periodic supplier audits.













## Raw Material GM Certification Requirements

Mondelez Europe accepts equally two following options of verifying non GM management, which have to be provided by supplier to our receiving plants with the frequency determined by risk prevalence assessment.

☐ Cert ID Certification/TCC.

■ Non GMO CoA's

The documents listed above are required for all materials containing or consisting of ingredients belonging to High/Medium risk.













## **Raw Material GM Certification Requirements**

### **Cert ID Certification/TCC:**

Two documents are required from supplier for each batch received;

- Cert ID Non-GMO Standard for Traceability and Identity Preservation. Certifies the supplier is operating in conformance with the Cert ID Non-GMO Standard. The certificate MUST be valid.
- Traceability Certificate of Compliance (TCC). This certificate is batch specific and certifies the specific batch with a comprehensive list of traceability of lots and associated test reference numbers. The batch number of the final product batch must be indicated on the TCC (e.g.. The batch of the final soya lecithin must be included in the certificate)

#### Non GMO CoA's:

Suppliers not providing Cert ID/TCC Certification for all raw material containing ingredients belonging to Medium/High risk Categories have to present Certificate of Analyses with the frequency determined in 5.3, Table 3. Only approved Laboratories and methods can be used.





## **New Alternative Certificates – Cert ID/TCC**

### **Cert ID Non-GMO Certification:**

Independent, third-party certification services verifying that a supplier's production and handling systems, quality systems, and products are "Non-GMO," meaning that they comply with the Cert ID Standard for excluding GMOs.





## **Traceability Certificate of Compliance (TCC):**

A traceability record that the named product has been verified to be in compliance with the required CERT ID Non-GMO standard. Samples have undergone PCR testing.

Significant number of high risk suppliers already using Cert ID and TCC













# Mondelez International Approved Laboratories for Issuing CoA Certificate of Analysis

Only approved laboratories are acceptable.

Only approved testing protocols are acceptable.

Note: the origin of the material may determine the testing protocol required (e.g. Maize from U.S. will be tested using a different method from EU).

Note: where twice annually per supplier is stated, the time period between the two tests must at least 4 months. First delivery for new materials must be accompanied by acceptable certificates.













## Testing of processed or unprocessed materials.

For products where the GM proteins/DNA is no longer detectable due to production process (e.g. glucose syrup from maize), the required analysis shall be done on the raw material used (e.g. maize) with full traceability to the lot supplied to Mondelez International.

Finished Product	Tested Product	
Soya lecithin	Soya Lecithin	
Soya Flour	Soya Flour	
Soya Oil	Soya Bean	
Maize Maltodextrin Glucose Syrup Corn flour (Starch from Maize)	Maize	
Canola Seeds Canola Oil	Canola Seed	
Cotton Seeds Cotton Oil	Cotton seeds	
Rice	Rice	

Examples: Soya Oil contains no testable DNA, so the original beans should be tested. Likewise, the original maize batch should be tested instead of the resulting glucose syrup.

Supplies must send the certificates to the receiving plant together with the material shipment at the latest. The plant must check that the result comply with requirements and retain certificate.













# **Mondelēz International Approved Laboratories:**

GeneScan Laboratories	
GeneScan Analytics GmbH	GeneScan USA
Engesser Str. 4	Eurofins GeneScan •
79108 Freiburg	2219 Lakeshore Drive • Suite 400 • New Orleans, LA
Germany	70122 USA
Phone: +49-761-5038-0	Phone: +1 504 297 4330
Fax: +49-761-5038-111	Contact: Greg Ditta - GregoryDitta@EurofinsUS.com
Contact: Peter Wehmann (-145) or Francesco Pinosa (-138)	
Email: gmoanalytics@genescan.com	
Eurofins do Brasil Análises de Alimentos Ltda.	
Rod. Eng. Ermênio Oliveira Penteado, Km 57,7 S/N	
Cond. Industriale - Prédio 1	
Bairro Tombadouro	
CEP: 13337-300	
Indaiatuba - SP - Brasil	
Phone: +55 19 3875-5502	
Fax: +55 19 3894-2434	
Contact: Fernanda M. Careli, fernandacareli@eurofins.com.br	
www.eurofins.com.br	
GeneScan Associated Labs (licensing agreements)	-
AgriQuality GMO Services	
3-5 Lillee Crescent	
Tullamarine Vic 3043	
AUSTRALIA	
Phone: +61-3-8318 9026	
Fax: +61-3-8318 9001	
Contact: Kylie Warner / Melanie Damtsis	
Email: warnerk@agriquality.com	
damtsis@agriquality.com	

#### Other Laboratories approved for local use only:

#### For Local South African Testing ONLY

#### **GMO Testing Facility**

Botany Building / Room 150 / Dekaanstraat (Dean Street)

University of the Free State

Bloemfontein 9300

South Africa

Phone: +27 -51- 401 2776 / 2514

Fax: +27-51- 448 8772 Contact: Dr. Chris Viljoen















# Mondelez International Approved Testing Protocols:

Code	Material delivered	Origin	Import + Sale	
GSE-KV-ING-KJS	Maize derived	EU	EU	
GSE-KV-21-KR	Maize derived	US, LA (Argentina)	EU	
GSE-KV-SO-KR	Soy derived (including soy lecithin)	All	EU	
GSE-KV-23-KR	Maize and all derived materials	LA (Argentina)	Brazil	
GSE-KV-CA01-KR	Canola Oil	EU	EU	
GSE-KV-CA02-KR	Canola Oil	Non EU	EU	
GSE-KV-CT-KR	Cotton oil and cotton based additives	Non EU (except China)	EU	
Special supplier related testing protocol:				
GS-KV-SN-KR	Maize derived snacks with spices	Supplier Inter- snack/Trueller	EU	













## **GM Test Limits**

## Results of analytical testing (CoA):

1<sup>st</sup> stage of testing is a qualitative screen. If this testing is negative, it indicates no GM has been detected and no further testing is done. Any positive results will be quantified. The mLOD is the limit of detection specific for the method and has no impact on the acceptability of results. The pLOQ is the practical limit of quantification for the test. This is dependent on the sample type and is critical for acceptability.

## Mondelēz Europe:

≤0.9% - this is acceptable and demonstrates that enough good quality DNA has been extracted.≥0.9% - this is not acceptable and demonstrates that not enough high quality DNA has been extracted.

n.q. - this is not acceptable and demonstrates that not enough high quality DNA has been extracted.

## Mondelēz Eastern Europe, Middle East & Africa (EEMEA):

Any positive results **for Turkey** will disqualify raw material. Such lot cannot be released for shipment to Mondelēz Turkey.

Any positive results **for other EEMEA countries** will be quantified to determine if meets requirements for valid threshold for adventitious presence of GM material. Threshold level depends on GM country regulations and needs to be confirmed before taking decision on disposition of raw material.













## Mondelez International Supplier Quality Web Site

The Mondelez International Supplier Quality web site is designed to facilitate the communication between Mondelez International and our suppliers.

Here you will find all of the Quality Requirements and Guidelines for Suppliers to Mondelez International, as well as the slides used in our Supplier Forums.

#### The web site includes:

- Supplier Quality and Food Safety Contractual Requirements
- Key requirement documentation
- Supplier Forum presentations
- Quality Support Material
- Contact email address

#### **Browser Address:**

http://www.mondelezinternational.com/procurement.aspx













