ORGANIC COTTON ACCELERATOR

TextileExchange
Creating Material Change

Textile Exchange in partnership with OCA and GOTS

Genetically Modified Organisms (GMO) Screening Protocol for Cotton & Textiles

17 June, 2019

Introduction

As part of our continued focus on improving integrity - In today's webinar, we'll introduce the recently delivered international reference protocol for GMO-screening in cotton and textiles; what it means and when to use it.

Speakers:

- Bart Vollaard, OCA Programme Director
- Rahul Bhajekar, GOTS Managing Director
- Ashley Gill, Textile Exchange Senior Manager of Industry Integrity

ISO IWA 32:2019
Screening of GMOs in cotton and textiles

Background, development process, key findings and future use

Presented by: Bart Vollaard

Background and aim

Need for common language and practice on GMO testing in the textiles sector and among laboratories – until what point in cotton/textile production can you reliably test for GMO presence, and how?

After initial conceptualization by GOTS, and with the financial support of C&A Foundation, OCA decided to address the need for a globally accepted and objective method to serve the interest of industry and consumers, and strengthen the sector

In 2018, we started the development of a standardized protocol for laboratories to screen cotton and processed cotton fibre (textiles) for the potential presence of GMOs

- Informed by assessment of the possibility to isolate good quality DNA from subsequent cotton processing steps (e.g. fibre, yarn, fabric and garment).

ISO International Workshop Agreement (IWA): *what and why?*

ISO IWA

- ISO document produced through a (series of) workshop meeting(s) rather than through the full ISO technical committee process
- Market players and other stakeholders directly participate in developing an IWA and do not have to go through a national delegation

Credibility & visibility

ISO is a highly recognized international body, giving credibility and visibility to our reference document.

Transparency & consensus

Facilitation of the process is neutral and follows the basic principles of standardization: transparency, fairness and consensus

Multi-stakeholder representation

All relevant stakeholders can participate in the process, incl. laboratories, cotton and textiles industry players, government agencies and standard bodies

Quality & interoperability

Quality and interoperability are ensured as laboratories are used to working with ISO documents.

ISO IWA development: the project team

Project lead

RIKILT Wageningen University & Research

- National Reference Laboratory for GMOs in Food and Feed
- Member of the European Network of GMO Laboratories

Secretariat

NEN –Netherlands Standardization Institute

- NEN combines knowledge of (EU) legislation, standardization, certification and accreditation
- Dutch member body of ISO, meeting qualifications of ISO Directives

Chair

Dr. Sally Uren – Forum for the Future

- Chairing all online meetings and the International Workshop

Participants

>80 people from 23 countries

- Representatives from cotton and textiles industry, laboratories, academia, standards and platforms, NGOs and foundations

Scope and objectives of IWA 32:2019

The IWA 32 provides requirements and recommendations to laboratories that perform genetically modified organism (GMO) analyses in cottonseed, leaf, cotton fibre and cotton fibre-derived materials.

The following objectives are within the scope of this document:

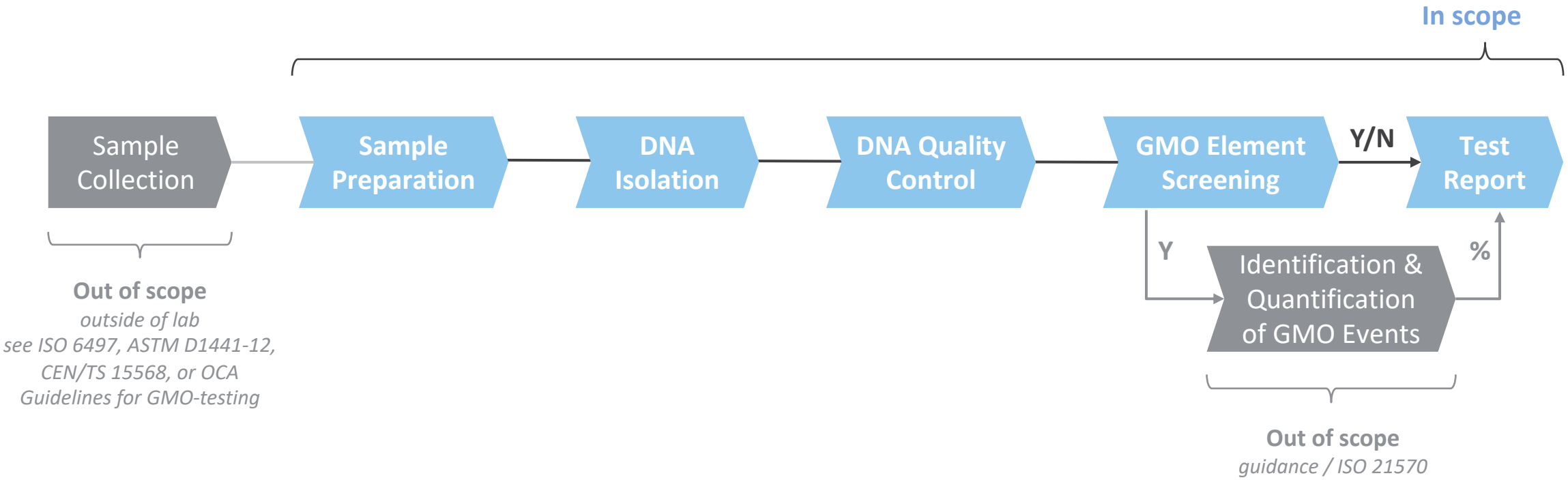
A. identifying the materials to be assessed, based on the probability of obtaining good quality, fit for purpose DNA from the materials in subsequent steps in the cotton cloth production process;

B. specifying a method for efficient DNA isolation from cotton and cotton-derived materials described under point A);

C. specifying the cotton-specific method(s) to be used as control for amplifiable DNA

D. specifying the screening procedure that provides optimal chances to detect GMOs as a result of the performance of the lowest number of genetically modified (GM) element screening assays.

Scope of the IWA protocol: qualitative screening



RIKILT's key activities and conclusions in protocol development

Key activities RIKILT	Conclusions and highlights
• Study the most suitable DNA isolation technique (with respect to the cotton production phase closest to garment/dyed fabric)	• From seed up to unprocessed (a.k.a. greige) yarn and fabric, a suitable DNA isolation is possible ○ It showed not possible to isolate amplifiable DNA in processed yarn and fabric. Processed yarn and fabric are therefore excluded from the protocol
• Checking the best endogenous cotton target	• A suitable endogenous marker has been identified (SAH7)
• DNA barcoding of the four cotton species • Study on the known GM cotton events • Best mix of screening elements	• A set of screening targets has been selected that covers all known cotton GM events • Tools that facilitate the identification of GM events are available
• Real-life sample analysis	• Analysis of real-life samples confirmed the applicability of the procedure

Protocol use: how to test your cotton products for GMO presence

The IWA GMO-screening protocol is integrated into the guidelines of OCA's FED programme, all labs will be asked to follow it

Accredited labs only

- Send your sample to a laboratory that is accredited against ISO/IEC 17025:2017.
- Provides assurance that the laboratory of your choice complies with the general requirements for competence, impartiality and consistent operation of laboratories.

Request use of IWA 32:2019

- Explicitly request your laboratory to follow the ISO IWA 32:2019 protocol 'Screening of GMOs in cotton and textiles'
- Laboratories can access the ISO IWA 32:2019 via the ISO website.

Seed up to greige fabric

We recommend testing for GM presence on cottonseed, leaf, raw cotton, fiber (lint) and greige yarn and fabric, but not on processed yarn, fabrics and garment*

* As per general consensus reached with all participating parties

Some last considerations

Enables all to take reasonable precautions to avoid contamination from GM materials

‘Organic’ is not a claim of absolute freedom from GMO contamination, but a claim that organic producers do not deliberately or knowingly use such technology

We do not know what possible future techniques might bring. OCA Secretariat will follow future developments and new claims in the space. As a neutral platform, we stress the importance of any new emerging method to be externally validated in line with a credible multi-stakeholder process such as the one provided by ISO.

To accurately respond to interests in the ISO IWA protocol and GMO-screening in the context of organic cotton, OCA will lead alignment on communications on this matter

Organic Content Standard (OCS) and Global Organic Textile Standard (GOTS)

GMO Testing Protocol updates

Presented by: Rahul Bhajekar and Ashley Gill

Current OCS 2.0 and GOTS

- CBs test based on risk at gin or spinner

A2.2a MANUAL GUIDANCE:
Testing for the presence of Genetically Modified Organisms (GMOs) in the Organic Material shall be carried out by the CB based on a risk assessment. The risk assessment shall consider the type of organic crop and the prevalence of GMO varieties in the growing region.

GMO testing on cotton shall be carried out at an early stage of the processing chain (ginning or spinning) to ensure that sufficient DNA from the plant is available in the seed or fiber material.

June 2019 Memo

- **New Language**: IWA 32 is the required testing method *if* risk determined by the CB warrants testing.
  - No longer allow testing at the spinner, only at the gin.
  - Effective after September 30, 2019

OCS Revision

- Frequency of testing
  - Risk Guidance in Certification Procedures
  - Sampling Rate
- Alignment on implementation standard release and mandatory date timing with GOTS release in March 2020

Q&A

Thank you

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Anti-Trust Statement

Textile Exchange convenes the textile community and values diversity of views, expertise, opinions, backgrounds, and experiences. It is expected that members of this community will collaborate by sharing ideas, information, and resources of publicly available information only and avoid discussions on price, strategic plans or other private and sensitive information.