Organic Content Standard 2.0 Revision
IWG Call

Date: August 27th 2019

Topic(s): GMO Screening of Organic Cotton

Attendees
- From Textile Exchange: Lee Tyler, Amish Gosai, Callie Weldon
  - Rahul Bhakekar - GOTS
  - Andrew Bayliss – Soil Association
  - Brittany DiBenedetto - Eileen Fischer
  - Imran Asghar - SIA
  - Jose Mazorra - Textile Santanderina
  - Lex Agapanan – Columbia Sportswear
  - Peter Junker - Naturepedic
  - Stephanie Dupas - Ecocert
  - Mahesh Nabadewewa - USB
  - Megan MeikleJohn – Eileen Fischer

Call Notes
Anti-Trust and Chatham House Rules
- This is call number 4 of 11 planned calls. Topic: GMO Screening of Organic Cotton & Organic Cotton
- Please remember to sign and submit the charter if you wish to be a voting member of the IWG

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Agenda

- Introductions
- Housekeeping & Reminders
- Final suggestion on Ginning (first processing steps) & Segregation
- Follow-up and Next Steps
Ginning (First Processing Step) & Segregation → New Suggestion:

Ginning (First Processing Step) & Segregation

First Processing Step (Ginning):
- NEW A2.1b: Organic Content Standard
  - The OCS requires all Organizations to be certified beginning with first processor through to the seller in the final business-to-business transaction.
  - NEW Organizations certified to both the Global Organic Textile Standard and the OCS shall be certified by the same CB in order to properly reconcile organic volumes among both standards.

Segregation:
- Example: Ginning for Bales. Ginning & Spinning are High-Risk area.
  - Identification:
    - Identify the seed cotton/raw cotton as Organic & non-Organic with labeling.
    - Provide adequate training to all work to understand and practice correct action while processing certified and uncertified materials. Label products as OCS 100 & OCS blend.
  - Segregation:
    - A dedicated area to store certified & non-certified material.
    - Extra precautions include cleaning out all machinery prior to processing organic inputs.

Change the language to first processor. User manual will replace the implementation manual.

- Feedback: is there any possibilities to extend NPOP & NOP up to Ginning? No, we don’t have any control over NPOP or NOP this has to be taken by the standard body itself.

- Can we change the label to printing on a bag to identify which is organic and which is non-organic? We can have best example in OCS 201: OCS User Manual & OCS 102 Certification Procedures to help CB and auditor to help identify the organic.

OCS Revision Workplan*

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*subject to change
Current Version OCS 2.0

GMO Screening of Organic Cotton & Organic Cotton

Current Version OCS 2.0 (Standard & IM)

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.


Change the protocol in the revision

GMO testing done on ginning or spinning right now, changing it to always

Current challenges, GMO testing is done by labs (ISO 17025) & authorized labs by Org. standards
  - Getting 2 lab sample variations in our results
  - Using a general organic testing because there is no specific method for cotton fiber and cotton textile

GMO Screening of Organic Cotton & Organic Cotton
GOTS had a round robin on GMO and they found their results were inconsistent and proved that testing was not reliable.

Rahul → This occurred in 2016. Test reports did not match and the testing was not reliable. Wanted to understand the problems and see if labs could do this properly. He sourced 2 types of cotton, one clearly with GMO and the other organic non-GM cotton. He separated them into samples with varying degree of mixtures and sent to 4 labs in Europe and India who were quite familiar with testing and had been issuing reports. Asked to provide tests that they did normally. The results showed that hardly anyone got identification of the non-GM correct. Some couldn’t identify at all, some got them mixed up, some partially identified, All in all they realized that results were inconsistent. Test protocol were not reliable. Something had to be done. GOTS decided to create a testing project to try and come out with uniform and universal protocol. Received funding from OCA (organic cotton accelerator with C&A backing) and they ran forward with the project and now have a protocol to be used by all labs (ISO IWA 32)

**Organic Agriculture definition:** Organically produced agricultural products

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### GMO Screening of Organic Cotton & Organic Cotton

**Organic Agriculture:** Organically-produced agricultural products

- Crop Production (Key principle for Input)
  - A. Choice of Crops & Varieties (Seeds etc.): Non-GMO
  - B. Fertilization policy: Prohibited artificial fertilizers (synthetic)
  - C. Pest, disease and weed management including growth regulators: Prohibited chemicals & pesticides

### GMO Screening of Organic Cotton & Organic Cotton Solution

**A) Choice of Crops & Varieties (Seeds etc.): Non-GMO**


- Concept initiated by GOTS, Organic Cotton Accelerator (OCA) fully funded ISO IWA (International Workshop Agreement) on the matter of GM testing of cotton.
- National standards body of the Netherlands, NEN in coordination with RIKILT.
- Published – April 2019 by ISO

- Provide guidance to laboratories worldwide to assess, in a standardized way, whether cotton, cotton fibre and/or cotton-derived materials are produced from, or contain materials from, genetically modified (GM) cotton plants.
- Eliminate uncertainty in testing result. (Same result from all samples & laboratories)
- Seed up to unprocessed fiber, yarn & fabric, a suitable DNA isolation is possible.

Result of IWA 32:
- Test: Use of ISO IWA 32:2019
- Qualitative testing (GMO detected or not detected)
- Testing on GMO: Seed up to greige stage product (Fiber, yarn, Fabric)

✓ Protocol only focused on Cotton.
✓ Standardized way & Repeatability of test result. (laboratory to laboratory and sample to sample)

Textile Exchange no longer recommends testing on chemically processed cotton materials. The specified test protocol for unprocessed cotton is ISO IWA 32:2019

Unprocessed textile: Fiber, yarn, fabric - undergone processing to develop its full textile potential.

- Chemically unprocessed
- Fiber Dyeing
- Yarn Dyeing
- Fabric Dyeing / Processing

Textile Exchange no longer recommends testing on chemically processed cotton material and you can use ISO IWA 32 until the cotton becomes processed.
We have released a GMO testing policy in August 2019 effective October 2019. Section A and B testing

Ginning – sampling has to be done at the ginning stage. Lab ISO 17025 + IWA 32 testing to get results. If it says GMO not detected, CB will issue a transit certificate. If GMO is detected, Section B says further investigation kicks in to find the root cause of the GMO presence. With the protocol mentioned in section B, if it is unintentional then there will be a TC issued. If it is fraud, it is out of the scope of the OCS and won’t be certified.

Questions in Chat:
- What’s the accuracy of IWO 32 and does the accuracy decrease as you move up the supply chain from seed to fiber. → If the testing is done on unprocessed product then the uniformity of the
testing is the same. When we test processed product, it won’t give you sufficient DNA from the material to test. There is more DNA at the stage of the seed but the test protocol that has been developed is accurate to not have issues with the test report.

- What is the actual accuracy rate? There is no accuracy rate. It is either possible or not possible. As long as we follow the test procedure it is either a yes result or a no result. Qualitative test. We’re not seeing and false negatives or positives? The protocol is such that it eliminates false positives.

- If greige fabric is paired with natural sizing agents (Such as maize) how can the GMO associated with maize and the non-GMO cotton can be distinguished? ➔ It will be sent in the yarn stage and if maize is used as the starch material than it is easy to identify if the starch is coming from maize or cotton. The protocol is such that it separates out the GMO coming from which material based on splitting out the DNA. In this case, we are testing known 4 species of cotton and have identified the known GMO results so we can tell if it is actually coming from the cotton DNA or another fiber. If there was maize in there it won’t come up in the results so it won’t be a false positive.

- If there is a greige fabric 50% Organic cotton + 50% Cotton, how the GMO can be distinguished? I understand than we have to request to organic cotton crop supplier the GMO control of each lot. ➔ For testing and sampling, you shouldn’t test further down the supply chain if you can help it. But if you did need to test at this stage, it is impossible to identify if the full material is organic or conventional. We need to reply on the chain of custody to verify. With OCS you can mix organic and conventional, but you won’t be able to detect. Always better to test at the gin to avoid further investigation costs down the line.

- ISO IWA 32 gives the qualitative or quantitative results. Is there any data in how many samples post fiber GMO is detected as per this test procedure? ➔ No this is not available at the moment. We need to see the applicability of the standard. After a year or two years we have key information about the numbers, geographic location, that will help and give us the answer for the next revision.

- If the test the report says GMO is detected or not detected, how do we characterize if it is high risk or low risk for intentional contamination or unintentional? This is typically used in food contamination so it will make it hard to determine risk. ➔ It is hard to get this information from the CB so this is needed for further investigation and then we can develop the document for the future. The main intent was to stop using other methods of testing ASAP due to the inconsistent results. We cannot determine contamination levels yet (PPM). The GMO testing is either it has GMO origin, or it does not. 100% or not. Genetic drift is what we’re worried about (when pollen from a neighboring conventional field blows over into the organic field into the cotton boll). Once a boll has been pollinated with genetic drift, that boll becomes 100% contaminated. The % of contamination in the fields is how many cotton 'bolls inside the field have been contaminated or not. It is a large process.

Comment regarding GMO in organic cotton:
Fertilization policy - ISO 20291. Determines the stable nitrogen isotope ratio in cotton fibers. Between soil nitrogen contain and the plant nitrogen. This is a ratio. The higher the number = organic, the lower the # is a chemically grown. This does not have anything to do with GMO. Limitations = you need both the soil and cotton tested. This is an optional thing that we are putting in for the CBs if you want to test for fertilizers. If you use a synthetic fertilizer the plants won’t absorb as much nitrogen so that’s how the test works.

Question in Chat:
- Are synthetic fertilizers allowed in organic cotton anywhere? No, not in cotton.
People are using Certified USAB Fertilizers, there is no control over this since the fertilizer is supposed to be certified. If there is detection, what would be the guideline for this detection? If you find chemical use, we don’t have guidelines for this since this testing we talk about is recommended not mandatory. Amish recommends to talk to the national standard body for the fertilizer. We can only inform them, we can’t change anything since it’s out of the scope on the fertilizer farm level.

GMO Screening of Organic Cotton & Organic Cotton

C) Pest, disease and weed management including growth regulators.
   : Prohibited chemicals & pesticides
   ✓ Follow current practice by certification bodies and guide-line given by National standards.

C) Pest, disease, and weed management including growth regulators. Prohibited chemicals and pesticides follow current practice by certification bodies and guide-line given by National standards.

GMO Screening of Organic Cotton & Organic Cotton

Textile Exchange:

1) OCS 201:OCS User manual (NEW – replacing Implementation Manual)
   A2.2aNEW
   ✓ IWA 32 testing as requirement
   o ISO 20921:2019 recommendation / possibility
   o Pesticide testing recommendation

2) OCS -102 Certification Procedures (NEW) – Specific guideline on GMO screening
   ✓ IWA 32 testing as requirement
   o ISO 20921:2019 recommendation / possibility
   o Pesticide testing recommendation

3) GMO Testing Policy released. (Done)
   ✓ OCS-103-V1.0 Policy on the GMO Screening of Organic Cotton.

Use IWA 32 testing as requirement, provide specific guidelines for the certification procedures. We will also give ISO 20921 recommendation.

Question in Chat:

What is the difference between GOTS and OCS for Organic cotton GMO testing process? GOTS released document first and we reformatted our guidelines to clarify language. What we didn’t know was frequency, so we put 1 test per year because we want the CB to pull a sample when they’re at the gin. Notification to the national body, testing early stages at the gin. Test protocol is given and if something comes up positive certain steps have to be taken. Harmonized between GOTS and OCS. Similar guidance with a few additions.
Can same organic cotton lot be certified by OCS and GOTS? Not really allowed, worried about double selling volumes before the CDB is intact. We defer to GOTS. Most gins are GOTS certified a couple OCS, in a case where it’s a GOTS gin we don’t need the OCS. We accept GOTS testing as the result. Because of our equivalence we accept input that is GOTS certified.
Feedback on Input Verification

- Remember the guidance on helpful feedback. Please provide reasons for your changes.
- Be specific about what should change or what you agree with.
- Provide reasons for your suggestions.
- Provide a reference for the part of the Standard you are referring to.

Examples of helpful feedback:
- “I would like to include more guidance on how to segregate materials during the spinning stage.”
- “I don’t understand why the objectives do not include a reference to integrated pest management. Can we add this to a discussion in the future?”

Examples of feedback that is less helpful:
- “This section doesn’t make sense.”
- “I think we should be doing more about marketing.”

Deadline: September 6, 2019

Next Steps

- Provide final feedback on GMO Screening of Organic Cotton & Organic cotton
- Provide feedback on Input Verification.
- Next Call September 8, 2019 (Input Verification)

Follow up
Requests for feedback

- Please provide written feedback by email
to Amish@TextileExchange.org copying Lee@TextileExchange.org prior to the next call by September 6th (the sooner the better!).

Reminders for next call
The next call will take place on September 10th at 2pm BST/9 am EDT. Joining instructions will be sent out by Textile Exchange Communications.
We will revisit today’s topic and review feedback. We will also look at Input Verification.
Other Updates

✓ OCS GMO Testing Policy released: **OCS-103-V1.0 Policy on the GMO Screening of Organic Cotton.**
✓ RWS 2.0 revision.
✓ OCRT (Oct 18, 2019)
✓ CFMB