FoodChain ID Non-GMO Global Standard

Summary of Changes from v6.2 to v7.0

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TRADEMARK

(Approved by FoodChain ID, November 2019)

I. Foreword

The rapid evolution of biotechnology and the corresponding consumer and market interests around the world for increased transparency and informed choice about genetically engineered products has compelled FoodChain ID to broaden and further strengthen the service offering of its Non-GMO Global Standard and Certification Program. The previous version 6.2 has thus been revised into a new version 7.0.

II. Transition from version 6.2 to version 7.0

The transition to v7.0 for organizations currently certified under v6.2 is anticipated to be easy and smooth. Compliance with v6.2 effectively implies compliance with v7.0, notwithstanding possible minor adjustments to certain specific new details contained in v7.0 designed to assure greater confidence in the results of sampling and testing plans. In any cases where such adjustments are needed, the certified organization shall be allowed reasonable time to implement changes without any effect on their good standing in the FoodChain ID Program. While the launch of v7.0 has been fast-tracked to address pressing market demand especially end-consumer products, FoodChain ID remains cognizant of the need for ongoing stakeholder feedback regarding the usability and usefulness of the Standard and corresponding certification requirements and procedures. Stakeholders are encouraged to provide feedback on any aspect of the Program by contacting FoodChain ID at www.foodchainid.com or info@foochainid.com

Operations certified in good standing to v6.2 will maintain their status in the FoodChain ID program and shall be expected to transition to compliance with v7.0 at the beginning of their next annual certification cycle, or by 30 June 2020, whichever is later. Certification audits beginning 1 January 2020 will be done against v7.0.

III. Overview of changes to the Standard

The following descriptions cover the main areas of changes made from version 6.2 to version 7.0. An exhaustive treatment of all changes can be found in section IV of this document.

Greater Transparency and Truth in Labeling

The Standard now provides explicit options for B2C (business-to-consumer) product claims, so that retail packages may attest to non-GMO content. Several options exist:

- A fully "Non-GMO" claim – for products that have been verified to have been made without the inclusion of any GMO inputs, whether or not at-risk inputs are part of the formulation.
- A "No GMO Risk" claim – for products that are formulated without any at-risk inputs, to indicate that the product in question does not, by the very nature of its components, pose any risk of being GMO. This option has been added to address market concerns that allowing a non-GMO claim on a non-risk product may confuse consumers that certain species have GMO analogs in the market when in fact they currently do not.
- A "Made with Non-GMO <ingredient(s)>" claim – for product formulations where a major ingredient or ingredient category (at least 70% of the product) has been verified to

not be a GMO. Such formulations may not in any case have the remaining components be from known GMO materials.

- An "X% Non-GMO" claim – for product formulations where certain minor or micro components have not been possible to substantively be verified as non-GMO. Such formulations may not in any case have components be from known or deliberately-used GMO materials. This option has been created to provide greater truth in labeling and transparency to the consumer, and is partially in response to market concerns that even small amounts of at-risk GMO inputs that are not verified to be non-GMO should be not allowed to escape clear identification by consumers.

More Specific Identification and Classification of Inputs According to Risk

Inputs that involve a degree of GM risk are now categorized as follows:

- Prohibited – not allowed in any instance in certified goods;
- Risk – species at risk of being from commercialized GM sources and thus must be appropriately controlled; and
- Potential Risk – GM sources either in development and field trial, with known inadvertent escape, or at risk of cross pollination by Risk species.

Annexes to the Standard provide explicit lists of Risk and Potential Risk inputs. The Standard's definition of GMO has also been amended to include products of synthetic biology. Because risk varies depending on input source and geography, v7.0 also allows for the possibility to downgrade the risk of an input if certain criteria are met. The FoodChain ID Non-GMO Program also shall implement an ongoing global surveillance program to continually monitor changes in risks.

Specific Tolerance Threshold Levels

While the FoodChain ID Non-GMO Global Standard still allows flexibility for potentially all markets where specific legal tolerance threshold levels for GMOs have been set, the Standard now also provides specific levels for European and North American markets respectively, as well as sets default threshold levels for markets where no such levels have been legislated.

Reframing of Requirements for Quality Management and Risk Assessment

Quality management systems and risk management are foundational practices for meeting the requirements of the FoodChain ID Non-GMO Global Standard. Version 7.0 still requires such systems be implemented but allows for greater flexibility in how such systems are designed and formalized by certified operations. The intent of this is to enable a broader diversity of organization scale and/or management styles to comfortably and credibly conform to the Standard. Whereas v6.2 had distinct sections on quality management systems and risk assessment, those requirements have been distributed across v7.0's new organization of topics.

Improved Requirements for Sampling and Testing

Version 7.0 includes several clauses aimed at ensuring that sampling and testing plans provide results that are consistently statistically significant and at a high level of confidence. FoodChain

ID's world-leading expertise on this topic assures certified organizations' risk assessment and monitoring of GMO controls optimize success in meeting market expectations and requirements; it deepens the integrity and enhances the credibility of the Program, and adds value to the FoodChain ID seal.

Additional Requirements for Farms and Livestock Operations Seeking Certification

The Standard now includes requirements that will more readily enable farms and/or livestock operations to become certified in their own right. There are specifications for use of seed and feed, as well as specific minimum transition times during which livestock must be raised on non-GMO feed in order for their products to be certified; European and other markets have different transition times respectively. There is a special classification of certified organic feed that counts it as a non-GMO input for livestock production.

IV. Line-by-line comparison of clauses between versions 6.2 and 7.0

The following tables compare versions in both directions, i.e. from v7.0 to v6.2 (Table 1) and from v6.2 to v7.0 (Table 2).

Comparison Table 1: V7.0 TO V6.2 of FoodChain ID Non-GMO Global Standard	
Version 7.0	**Version 6.2 equivalent**
1.0 FoodChain ID product labeling and labeling categories	
1.1 FoodChain ID Non-GMO certification claims may be used on retail or non-retail packaging and on related marketing materials. All labels and other market claims must be approved in writing in advance by FoodChain ID.	No reference
1.1.1 Use of the FoodChain ID Non-GMO seals is voluntary. All seal use must be approved in writing by FoodChain ID in advance of use.	No reference
1.1.2 Where the organization elects to use the FoodChain ID Non-GMO logo or another Non-GMO related claim, the product bearing the claim shall respect the targeted tolerance levels both in the countries where the products are produced and where final products are intended for sale.	12.3
1.2 FoodChain ID Non-GMO certification claims may not be made on any products that are prohibited by law to carry non-GMO claims in the relevant market(s).	No reference
1.2.1 Certified operators shall be responsible for obeying legal restrictions on labeling imposed in specific target markets for certain product categories, eg alcoholic beverages, meat products, etc.	No reference
1.3 The Organization shall claim FoodChain ID certification only for products made at the facilities or sites approved under the FoodChain ID Standard.	12.1
1.4 In no case may a product carry a FoodChain ID Non-GMO claim if it is required by law (or any other voluntary program in which the operation participates) to make a disclosure indicating the presence of genetically engineered (or bioengineered, or similarly defined term) material.	No reference
1.5 This Standard provides for a variety of Non-GMO certification and labeling categories, depending on formulation and subject to mandatory government regulations and targeted tolerance thresholds in force in the market(s) in which products are placed. Labeling categories include the following:	No reference
1.5.1 "Non-GMO" – Products in this catgory have been verified to not contain any GMO components, in line with this Standard.	No reference
1.5.1.1 Non-GMO claims may not include statements about the absolute absence of GM material such as "zero GMOs" or "GMO free."	No reference
1.5.2 "No GMO Risk" – Products in this category must be confirmed to not be formulated with any input that has a GMO analog or any component that may pose a potential GMO risk, as indicated in section 2 and Annexes A and B of this Standard. For qualifying product formulations, this labeling option may be used as an alternative to the "Non-GMO" option indicated in clause 1.5.1.	No reference

1.5.3 "Made with Non-GMO <ingredient(s)>" – For at least 70% of the product's formulation, specified at-risk GMO ingredients have been verified to not be GMO through analysis and/or process controls as required by this Standard.	No reference
1.5.3.1 Such labels may only refer on the principal display panel of the label to a maximum of 3 ingredients, or a maximum of 3 food groups where all components of said food groups are non-GMO. The font size of the "made with" statement must not exceed one-half of the largest font size of the principal display panel and must not have special highlighting.	No reference
1.5.3.2 The ingredient declaration on the label must indicate each ingredient that is certified non-GMO under the FoodChain ID Non-GMO Global Standard with either the modifying descriptor "non-GMO" or an asterisk or similar indicator, which below the ingredient statement explains that the indicator signifies the non-GMO status. Water and non-biological ingredients may not be described as non-GMO and do not count in the percentage calculation.	No reference
1.5.4 "X% Verified Non-GMO" – where the verified percentage of non-GMO ingredients is calculated based on the total formulation not including added water and any ingredients not from a biologcal source (eg salt), rounded down to the nearest whole number. The font size of the percentage declaration must not exceed one-half of the largest font size of the principal display panel and must not have special highlighting.	No reference
1.5.4.1 The ingredient declaration on the label must indicate each ingredient that is certified non-GMO under the FoodChain ID Non-GMO Global Standard with either the modifying descriptor "non-GMO" or an asterisk or similar indicator, which below the ingredient statement explains that the indicator signifies the non-GMO status. Water and non-biological ingredients may not be described as non-GMO and do not count in the percentage calculation.	No reference
1.6 Where the Organization deals with both certified and uncertified products, it must ensure that the FoodChain ID Non-GMO logo is only used in respect to FoodChain ID certified products and that certified products are clearly distinguished from uncertified products.	12.2
2.0 Inputs & Sourcing	
2.1 Sourcing of inputs	
2.1.1 Operations shall conduct a risk assessment of all inputs it uses in each facility covered by FoodChain ID Non-GMO certification. A written risk assessment plan shall be reviewed at least once every 12 months and updated any time a change takes place that may affect the Non-GMO status of the products under certification.	2.8 2.9
This may include but not be limited to a change of:	
§ Targeted Threshold Tolerance Level(s),	
§ List(s) of relevant legally approved and non-approved GMOs in their target markets,	
§ Supplier(s) of inputs, (including country or region of origin),	
§ Ingredient(s) or ingredient source(s), including ones supplied by subcontractors	
§ Processing conditions or equipment,	
§ Storage or distribution conditions,	
§ Change(s) in job responsibilities,	
2.1.2 The Organization shall determine its Targeted Threshold Tolerance Level(s) for their targeted markets, in line with this Standard.	1.1

2.1.3 Operations shall have written specifications for input sources and supplier approval including spot purchases to assure that inputs used in certified products are in accordance with the Targeted Threshold Tolerance Level(s) and other non-GMO verification requirements in this Standard.	4.2
2.1.3.1 Input specifications shall be reviewed annually at a minimum, or any time a change to the input occurs.	4.3.1
2.1.3.2 Input specifications shall be reviewed and updated as necessary when a new supplier is sought or if changes have been made to the specification.	4.3.3
2.1.4 Specification sheets from all suppliers shall include, for each and every input supplied:	No reference
2.1.4.1 Full disclosure of all components comprising the input	No reference
2.1.4.2 the country of origin	4.3.2
2.1.4.3 A statement from the supplier that declares inputs are Non-GMO per the Standard's definition.	4.2.1
Guidance: FoodChain ID provides a standardized document for such declarations, which operators have the option to use instead of one they or their suppliers create.	No reference
2.1.4.4 Test results that confirm at-risk inputs meet the Targeted Threshold Tolerance Level(s) for the presence of GMO for each lot of purchased at-risk inputs.	4.2.2
2.1.4.5 Inputs that may be from at-risk species but have no testable protein or DNA shall have full Non-GMO traceability back to the source where testable protein or DNA is present and has been tested.to demonstrate that tolerances have been met.	2.3
2.1.5 At-risk inputs shall be cross-checked with specification sheets to verify conformance with targeted tolerance levels has been met.	4.4
2.1.6 Certified operations must document their review of inputs received from contracted suppliers who are not in themselves certified in accordance with the FoodChain ID Non-GMO Global Standard, in order to verify the conformity of those inputs with this Standard.	No reference
2.1.6.1 The review should include a complete review of the supplying facility's standard operating procedures and relevant certifications in place, and any additional measures imposed to ensure there is no risk of nonconformity. The supplying facility shall be able to address control points as part of a risk assessment plan especially with regard to sections 2 through 6 of this Standard.	No reference
Guidance: A standardized FCID Risk Assessment Plan Template can be used to create a risk assessment plan.	No reference
Note: FoodChain ID may require an onsite audit of contracted suppliers based on risk, as determined on a case-by-case basis.	No reference
2.2 Prohibited inputs	No reference
2.2.1 Operators may not deliberately use any input known to be from an intentionally GM source in certified products.	
2.2.2 The following may not be included in production or manufacture of certified products. Operators must demonstrate compliance with all such related inputs involved with their certified operations:	
2.2.2.1 GMO microbial cultures and/or functional enzymes therefrom	
2.2.2.2 Cloned animals or other GM livestock breeds	
2.2.2.3 Dairy inputs produced with the use of rBGH/rBST	Guidance at 4.8

2.3 Risk inputs	
2.3.1 At-risk inputs are indicated in Annex A of this Standard, and include species known to be commercially available in GMO form, and extends to derivatives of these species. The operation must identify which inputs that it uses are at risk per this Annex and is required to have documentation to validate that all inputs used in certified products meet the designated GMO targeted tolerance threshold for the target market.	4.3
2.3.2 Targeted Tolerance Threshold Levels – Because inadvertent or unavoidable contamination of intended non-GMO input sources by GM material may occur beyond operators' control, products certified under the FoodChain Non-GMO Global Standard that involve at-risk inputs must be verified to be below the following targeted tolerance thresholds:	No reference
2.3.2.1 There is zero tolerance for presence of GMO material for varietries which are not legally allowed by the relevant market.	No reference
2.3.3 Inputs that are a GMO risk but for which there are currently no analytic detection methods available shall undergo a risk assessment to determine what other methods are best suited to assure that certified products are Non-GMO, including but not limited to the following:	No reference
2.3.3.1 Documentation attesting to the Non-GMO nature of the sourced ingredients (as defined by this Standard) for which there are currently no available analytic detection methods available (eg products of gene editing), of all lots used for certified products.	2.3.1.1
2.3.3.2 Isotope testing may be considered as an option to validate country or region of origin.	2.3.1.2
2.4 Potential risk inputs	No reference
2.4.1 Annex B of this Standard lists inputs that may be subject to GMO contamination either due to cross pollination in the field from compatible GMO species or to unauthorized escape of non-commercialized GMO varieties, or have been legally approved but are not commercialized. The operation must identify those inputs that it uses from this Annex and participate in a surveillance program in collaboration with the FoodChain ID Non-GMO Global Standard to assure that inadvertent GMO contamination of certified products is avoided.	
2.4.2 There is zero tolerance for GMO presence for input materials listed in Annex B.	
2.5 Downgrading of risk – At-risk inputs may be deemed to not be at risk under the following circumstances:	No reference
2.5.1 The country of origin's regulations prohibit production of GMO varieties of the species in question. As such, there is no incidence of GMO use, and appropriate measures (eg identity preservation and traceability throughout the entre chain of custody) are in force to assure exclusion.	
2.5.2 The input is biologically transformed by non-GM methods/organisms and the resulting product absent of detectable GM material or purified to a degree that does not allow detectability of any GM material.	
2.5.2.1 Any such inputs may be used in the further manufacturing of product formulations that bear a FoodChain ID Non-GMO seal or claim, but such inputs themselves may only bear a FoodChain ID Non-GMO market claim as a business-to-business ingredient that gets used in further product manufacturing, *unless* all substrates used in the fermentative/biological process are also verified to be non-GMO in accordance with this Standard."	
2.5.3 It is fully composted, or is animal manure that is applied as a farming input	
2.5.4 It is certified organic under the applicable market standard/regulation and used as livestock feed.	

2.5.4.1 In such cases, certfied operations must participate in a surveillance testing program coordinated by FoodChain ID in order to monitor that at-risk feed components stay below targeted tolerance thresholds. Analytical results showing organic feedstuff in excess of the threshold will be subject to root cause analysis and appropriate remedial actions.	
2.6 Processing aids whose active components are in conformance with this Standard but also have GM (or potentially GM) components that do not have a technical effect and are not listed on the final product label may be used in certified product formulations.	No reference
3.0 Sampling & Testing	
3.1 All certified operations shall have a written risk-based sampling and testing plan that describes all relevant sampling and testing methods and procedures needed to conform to this Standard. All operational activities conducted pursuant to the plan shall be documented.	2.7 10.1
3.1.1 Certified organic ingredients that are <5% of a formulation may be exempt from the samping requirement, based on risk assessment.	No reference
3.2 Sampling of ingredients - A sole at-risk ingredient in a single ingredient product and at-risk ingredients in a multi-ingredient product shall have been subject to sampling and GMO testing with the following specifications at appropriate place(s) in the supply chain:	No reference
3.2.1 The sampling plan must be relevant to the source material, nature of the ingredient, and the processes through which it is handled.	No reference
3.2.2 The sampling plan must at minimum describe the sampling procedure including the number of incremental (primary) samples, size of bulk (composite) and laboratory (test) sample, frequency and time interval of sampling, sample identification and sample retention.	No reference
3.2.3 The sampling plan must be in accordance with relevant sampling rules that may include but are not limited to GAFTA, FOSFA, GIPSA, Regulation (EC) No. 619/2011, ISO 13690:1999. Operations must specify what norms they use in determining their sampling plan(s).	No reference
3.2.4 Sampling plans must be statistically significant and able to yield results with a minimum of 90% confidence. FoodChain ID will review sampling plans on a case-by-case basis.	No reference
3.2.5 Archive samples or retainers shall be held for the time frame during which the product would reasonably be expected to remain in the supply chain or based on risk assessment.	10.4
3.2.6 Individual sub-samples which made up a composite sample should be retained to permit individual sample testing in the event of a non-conforming composite result.	10.4.1
3.2.7 The sampling method must not itself cross-contaminate either the input/product or sample.	10.3
3.3 **Testing -** Test results shall confirm that the relevant targeted tolerance thresholds for the presence of GM have been met. PCR testing may be quantitative or qualitative, but in all cases must conclusively attest to targeted tolerance threshold requirements being met. FoodChain ID will review and approve all testing plans prior to awarding certification.	11.2
3.3.1 Testing must cover all known GM events for the species in question.	No reference

3.3.2 PCR testing - All FoodChain ID certified products must demonstrate Non-GMO status through PCR testing of product at a point where sufficient DNA is present to validate the applicable targeted tolerance thresholds of the FoodChain ID Non-GMO Global Standard,	11.4
3.3.2.1 The testing plan shall include consideration of possible risks of contamination by commercialized varieties that are unable to be tested due to unavailability of the genomic map and/or the absence of testing reagents (eg new transgenic or gene-edited varieties).	11.5.1
3.3.3 PCR testing methods shall include the screening of specific GM traits, non-approved varieties and appropriate GM tolerance levels as identified in the Testing Plan.	11.5
3.3.4 All lots of at-risk inputs must be tested and confirmed below the applicable targeted tolerance threshold. Testing may occur anywhere along the chain of custody as long as identity preservation of the given lot is maintained and the targeted tolerance threshold is not exceeded thereafter.	No reference
3.3.4.1 If samples are composited, this must be done in such a way that any component sample that would exceed the targeted tolerance threshold would also yield a positive result for the composited sample. If a positive result of the composite sample occurs, the component lots may be retested to exclude non-conforming components.	No reference
3.3.5 PCR testing must be done through a FoodChain ID approved laboratory.	11.3
3.3.5.1 For consistency, uniformity and to reduce variation and error in the FoodChain ID Non-GMO Global Standard certification program, it is essential that GMO testing procedures and the analysis of test results be conducted in a uniform, consistent, and scientifically robust manner. The testing methods selected for this purpose are those that have been internationally established by the Global Laboratory Alliance (GLA). Laboratories that are not GLA members may either join, or license relevant methods from the GLA to satisfy the requirement of conducting PCR testing according to FoodChain ID approved methods.	Guidance at 11.3
3.3.5.2 Laboratories must maintain ISO/IEC 17025:2005 accreditation for all relevant GMO events for the at-risk inputs involved and provide test result documentation that indicate the validity of the methods used.	Guidance at 11.3
3.3.6 Organizations shall retain all applicable test results to validate that targeted tolerance thresholds have not been exceeded.	11.7
3.3.6.1 The certified operation must report to FoodChain ID all test results above the taregted tolerance threshold, stating the input, source, and level detected.	No reference
3.3.6.2 Lots that test above targeted tolerance threshold must be rejected and thus not used in the certified product.	No reference
3.3.6.3 The operation must investgate the source of contamination if it is from a specific supplier, document root cause analysis for the lot being out of conformity, and the corresponding course of action to avoid such occurence in future.	No reference
3.3.6.4 A quality control report must be available to the to FoodChain ID and its auditors.	No reference

3.4 Immunologically screening (strip tests) – Strip tests may be used for unprocessed raw material (inputs) as appropriate and based on risk assessment as an adjunct approach when rapid testing for the presence of GM contamination is essential.	10.1.2
3.4.1 All personnel who conduct strip testing must demonstrate proficiency in the relevant procedure. Training of employees must be documented.	No reference
Guidance: When Immunologically screening is used, the spent test strip should be photographed or digitally scanned for record keeping. If test strips are retained for records, appropriate measures must be made to stop the immunological reaction by removing the respective parts of the strip, otherwise the result may change over time.	Guidance at 10.1.2
3.5 Testing of Purchased Livestock Feed - Purchased feed must show GMO content below the targeted tolerance threshold stated in section 2.4.2. Feed mills may use strip tests for incoming loads of raw crop but must use PCR analysis for finished lots of feed, with the targeted tolerance threshold heeded for each raw at-risk crop component.	No reference
3.6 Sampling and testing plans must be verified and validated at a minimum annually.	2.7.2
4.0 Control of Production and Processes	
4.1 All established Non-GMO lots of inputs and ingredients should have designated identification markers to identify them as Non-GMO. Lot numbers, other ways of lot coding viz., color coding, name coding etc. can be used to identify Non-GMO lots.	No reference
4.2 All certified operations must assure complete segregation and identity preservation of non-GMO lots during all stages of operations, including production, handling, storage, processing, packaging and labeling to ensure that contamination or cross-contamination shall not occur. Certified operations must identify and document all critical control points where non-GMO integrity could be compromised and have measures in place to avoid commingling of the compliant and non-compliant lots of ingredients or products. This includes but may not be limited to the following:	2.6
4.2.1 Identified control points shall be documented and validated as applicable by scientific means through appropriate sampling and testing methods.	2.6.1 8.3
4.2.2 Consistent coding and easy identification of the Non-GMO lots at all critical control points	No reference
4.3 Equipment used in production and processing –	
4.3.1 Product changeover from GMO containing inputs/products to Non-GMO production shall be evaluated for possible GMO contamination risks. Appropriate control measures shall be implemented for each identified risk	2.3.4 8.1
4.3.2 Equipment cleanout and/or flushing procedures used to segregate and protect non-GMO inputs/products shall be implemented and documented, with the procedures duly validated per clause 4.2.1	2.3.5 2.4
4.4 Storage areas and units – All storage facilities, areas, and related equipment must be clearly segregated from GMO risk. Non-GMO storage must be clearly demarcated as such.	No reference
4.4.1 The Organization shall maintain an inventory system that effectively accounts for all inputs and finished products that are Non-GMO.	3.2
Guidance: If any area of the facility viz., storage, processing or production is shared, the compliant or approved inputs/ingredients should be stored above the non-compliant inputs/ingredients, processed before the non-compliant inputs are processed and production of certified products should occur prior to production of non-compliant products.	No reference

4.5 Packaging and other product-holding vessels must be verified and documented clean of potential GMO materials before being used for non-GMO inputs/products. All such contained lots must be duly identified physically as appropriate to the stage of production and on related documentation.	No reference
4.6 Transportation – all vehicles used to transport prodct must be verified clean and to not pose a GMO contamination risk. The diligence so done must be documented.	No reference
4.7 Contracted service providers - A current list of all service providers for the Organization shall be maintained.	1.10
4.7.1 Service providers for the Organization shall have contract agreements in place, which make references to relevant non-GMO control points.	1.10.1
4.8 The operation shall implement a hold and release program for each lot or batch that bears the FoodChain ID Non-GMO Certification.	3.3
4.8.1 An effective and documented recall/withdrawal procedure shall be in place for non-conforming products. And shall include at a minimum:	3.4
4.8.1.1 Emergency contact details for contacting FoodChain ID during a recall/withdrawal situation, with specifications that such notification shall occur within 48 hours;	3.5.1
4.8.1.2 A documented trial recall exercise performed at least once a year that is independent of a traceability test; and	3.5.2
4.8.1.3 Methods for retrieving and disposing of recalled/withdrawn product	3.5.3
4.9 All incidents of non-conforming product shall trigger a review of the corrective action procedure so that relevant changes are made to prevent recurrence. The results of such exercise shall be documented.	Guidance at 3.3.1
4.10 In the case where the operation discovers that a lot is non-conforming after the lot has left the certified operation's custody, the operation shall contact FoodChain ID immediately.	3.3.1
4.11 Additional measures for farming/crop production	
4.11.1 Crop production operations wishing to be certified themselves under the FoodChain ID Non-GMO Standard shall assure that the seed they use meets the targeted tolerance threshold set by this Standard.	4.9
4.11.2 Testing of seed lots shall be for all possible GMO events for the species in question.	No reference
4.11.2.1 Purchased seed must be received with proof of conformity and supported by test results in line with section 3 of this Standard, and this shall be documented by the farming operation.	No reference
4.11.2.2 Seed saved by the farming operation itself and used for producing a crop that will not be sold as seed shall have been tested via PCR or through strip tests, and verified to be below the targeted tolerance threshold level for seed indicated in section 2 of this Standard. For lots to be sold as planting seed, PCR tests must be done in line with sections 2 and 3 of this Standard.	No reference
4.11.2.2.1 If strip tests are the method used, the operation must demonstrate its proper use of the testing technology.	No reference
4.11.3 Segregation of Seed Sources – Cropping practices and related procedures shall be in place to prevent previously planted GMO crops from germinating and contaminating fields intended for production of certified Non-GMO crops.	8.6
Guidance: Organizations seeking seed as an input for growing as a grain or for seed production should consider that GMO presence in seed should be significantly below their selected Targeted Threshold Tolerance Level(s).	4.9

4.11.4 Cropping practices shall take into consideration the potential for pollen drift from nearby GMO sources, and take all reasonable steps (eg staggering planting times, planting distinguishable varieties, instituing physical barriers, creating buffer planting zones, etc.) to avoid the chance for cross contamination.	No reference
4.11.5 Areas that have been identified as a contamination risk shall have a written plan which provides the instructions to eliminate or reduce the risk.	No reference
4.12 Additional measures for livestock production	
4.12.1 Livestock and/or animals (if applicable) Livestock and/or animals used for the production of FoodChain ID certified products shall be segregated from other livestock throughout their lifespan.	8.5
4.12.1.1 Where appropriate, individual livestock and/or animals shall be marked or tagged to facilitate segregation.	8.5.1
4.12.2 Livestock/Animals must pass through the following minimum conversion periods to qualify for FoodChain ID Non-GMO certification status:	4.7
4.12.3 Animals certified to the FoodChain ID Standard shall not be fed GMO crops and shall be prevented from grazing on GM crops.	8.5.2
4.12.3.1 Operations must provide FoodChain ID with their feed rations for the different life-cycle stages of all animals whose products are requested for certification.	No reference
4.12.4 The use of GMO drugs or hormones for livestock and/or animals other than for medical reasons is prohibited.	4.8
5.0 Traceability	
5.1 The operation shall have a traceability program to ensure that traceability can be demonstrated throughout the chain of custody both backwards (trace) and forwards (track) from inputs through work in progress to finished product.	9.1
5.2 The Organization shall annually test the effectiveness of the traceability program (including packaging/labeling) both backwards (trace) and forwards (track) to ensure traceability can be demonstrated.	9.6
5.3 Full traceability shall be achievable within 4 hours.	9.2
5.4 Processing or production records must include production period, ingredients and inputs used, input identification (lot or similar identifying number(s), amount, and product loss during processing.	9.4
5.5 The traceability program shall include primary packaging/labeling and raw materials relevant to its certified products.	9.5
5.6 A running mass balance and full inventory system shall be maintained for inputs and outputs correlating the amounts of compliant (or certified) inputs with amounts of certified outputs.	9.7
5.6.1 The use of rework in the production of product certified to the FoodChain ID Non-GMO Global Standard must be recorded in the product mass balance.	9.7.1
5.6.2 A running mass balance shall include identification of constituent batches and their proportions by lot number. A new lot number or proper identification must be assigned for the composite lot as well as for the composite or split consignment.	9.8
5.7 A procedure shall be in place for customer service and order fulfilment procedures to verify that the correct certified product consignments or product lots have been shipped to the correct customers.	9.9

5.8 All finished products in packages must be lot marked, enabling traceability to raw materials used in their production. Where the material is supplied in bulk, a unique lot identifier must be associated with each specific lot.	9.10
5.9 All goods shipped in bulk, where packaging or labels are not feasible, shall be duly identified on associated documentation with a lot or production code which allows for traceability back through all links in the chain of custody of the goods involved.	9.11
6.0 Quality Management, Training, Internal Audit, and Records	
6.1 Responsible personnel shall establish and maintain and have available on all certified sites a written Quality Management System (QMS), which includes procedures, work instructions or Standard Operational Procedures (SOPs), and records that can demonstrate the organization's compliance with this Standard.	1.3
Guidance: It is helpful for the QMS to include an organizational chart and corresponding documented job responsibilities and functional positions for execution and implementation of the FoodChain ID Non-GMO Global Standard. Job responsibilities and functional positions should then be kept up to date and be clear for roles that impact its management systems. Functional positions should have nominated, trained Deputies as back-up whenever human resources allow; the organization should be able to demonstrate how Deputies are deemed competent to fulfill deputized roles.	1.8 1.9
6.2 The Organization shall be able to demonstrate how it stays current and up to date on scientific and technical developments, industry codes, and new legislation for the country in which the product is made and/or in which It is sold.	2.8.2 2.8.8 3.1
6.3 The organization shall ensure all that all documents relevant to the FoodChain ID Non-GMO Global Standard are kept current including changes to operations, facilities and procedures, and appropriately distributed to, understood, and used by all relevant personnel.	1.5 1.6 1.7
Guidance: A formalized document control system is highly recommended, which can be checked both internally by the organization as well as by FoodChain ID auditors, and which demonstrates how versions are distributed and used in a timely manner.	1.5
6.4 Training - The operation shall train employees, agency personnel, temporary staff, and contractors on GMO awareness and all relevant aspects of this Standard in order to assure the operation's compliance with it.	7.1 7.7
6.4.1 Refresher training shall take place at appropriate intervals based on risk to ensure that staff maintains the required level of knowledge for the effective operation of the program. Changes in processes, procedures, and revisions of documentation shall require a training update for the employees responsible for those functions of the program.	7.5 7.8
6.4.2 Training records shall include:	7.6
6.4.2.1 The full name and signature of the person who delivered the training;	
6.4.2.2 The date and duration of the training;	
6.4.2.3 The title of or course content; and	
6.4.2.4 The full name(s) and signature(s) of the person(s) who received the training.	
6.5 Internal Audit - An annual internal audit against the FoodChain ID Non-GMO Global Standard shall be carried out by the Organization to identify any areas of non-conformance.	5.1
6.5.1 The Organization shall have a documented internal audit procedure.	5.2

6.5.1.1 The procedure shall identify those responsible for conducting the internal audit.	5.2.1
6.5.1.2 The procedure shall include responsibilities for investigation into non-conformities resulting from the internal audit.	5.2.2
6.5.1.3 The investigation into non-conformities shall include documented:	5.2.3
6.5.1.3.1 Corrective action;	
6.5.1.3.2 Root cause analysis;	
6.5.1.3.3 Risk assessment; and	
6.5.1.3.4 Preventative measures.	
6.5.2 A review of the effectiveness of corrective actions where non-conformities are identified shall be part of the corrective action program. The review shall include but not limited to the following:	5.3
6.5.2.1 Feedback and findings from internal audits;	
6.5.2.2 Legislative, technical, and industry developments relevant to the FoodChain ID Non-GMO Global Standard;	
6.5.2.3 Verification that the quality system, quality manual, procedures, testing methods, training programs, etc., are current and in compliance;	
6.5.2.4 Supplier performance;	
6.5.2.5 Corrective actions and out-of-specification product; and	
6.5.2.6 Customer complaints and complaint trend analysis.	
6.5.3 A trend analysis shall be used to identify re-occurring non-conformance to eliminate the re-occurrence and assess risk of re-occurrence.	5.4
6.5.4 Contractors or subcontracted organizations performances shall be reviewed minimum annually, based on risk and be documented.	5.5
6.5.5 In organizations where adequate human resources exist, personnel involved in monitoring and assessing performance of the system shall be independent of the personnel responsible for the day-to-day production.	1.5.2
Guidance: Only in very small organizations with few personnel may an exception to the above clause be requested of FoodChain ID.	No reference
6.6 Records - Records and data shall be maintained for all processes essential for the integrity of the FoodChain ID Global Standard.	6.1
6.6.1 The Organization shall have a current, original hard copy or electronic version of the FoodChain ID Non-GMO Global Standard available.	1.3.3
6.6.2 All records shall be legible.	6.2
6.6.3 Records that have been amended shall be countersigned and dated by the person authorizing the change.	6.3
6.6.4 All records used to demonstrate conformance to the FoodChain ID Non-GMO Global Standard shall be retained for a minimum of five (5) years.	6.4
Guidance: Longer retention of records should be considered for products with a long shelf line.	Guidance at 6.4

Comparison Table 2: V6.2 TO V7.0 of FoodChain ID Non-GMO Global Standard	
Version 6.2	**Version 7.0 equivalent**
1.0 Quality Management Systems (QMS)	
1.1 The Organization shall determine its Targeted Threshold Tolerance Level(s) for their targeted markets.	2.1.2
1.1.1 The certification contract agreement shall include the determined Targeted Threshold Tolerance Level(s).	Annex E (viz. Service Proposal)
1.2 The Organization shall determine the relevant GMOs for their target markets, and these shall be indicated in the certification contract agreement.	Annex E (viz. Service Proposal)
1.2.1 The certification contract agreement shall include the approved and non-approved GMOs in their target markets.	Annex E (viz. Service Proposal)
1.3 The Organization shall establish and maintain a written Quality Management System (QMS), which includes procedures, work instructions or Standard Operational Procedures (SOPs), and records.	6.1
1.3.1 The extent and depth of the QMS shall be appropriate to the operation and scale of the Organization.	6.1
1.3.2 All procedures, work instructions, reference materials, specifications and other documentation essential for the execution of the FoodChain ID Program (sometimes called the "Program;" see definitions) shall be maintained at the location where certification is provided.	6.1
1.3.3 The Organization shall have a current, original hard copy or electronic version of the FoodChain ID Non-GMO Global Standard available.	6.3.1
1.4 The Organization shall have a policy statement that demonstrates the Organization's commitment to the supply of Non-GMO products. The policy statement shall;	Annex E (viz. Service Proposal)
1.4.1 Be signed by a member of the Organization's senior management,	Annex E (viz. Service Proposal)
1.4.2 Be reviewed based on risk no less than annually,	Annex E (viz. Service Proposal)
1.4.3 Be updated when there is a change that may affect the policy.	Annex E (viz. Service Proposal)
Guidance: The Standard does not mandate the organization to be dedicated exclusively to Non-GMO.	*Removed*
1.5 The QMS shall have a Document Control Procedure to support the development, implementation, maintenance and control of the QMS.	6.3
1.5.1 A designated person shall manage the Document Control Procedure to ensure all documents relevant to the FoodChain ID Program are kept current including changes to operations, facilities and procedures.	6.3
1.5.2 Personnel involved in monitoring and assessing performance of the system shall be trained and independent of the personnel responsible for the day-to-day production.	6.5.5

1.6 The QMS shall be available to relevant personnel.	6.3
1.7 The QMS shall be in a language or multiple languages understood by all key personnel.	6.3
1.8 The QMS shall include an organizational chart.	Guidance to 6.1
1.9 The QMS shall have documented job responsibilities and functional positions for execution and implementation of the FoodChain ID Program.	Guidance to 6.1
1.9.1 Job responsibilities and functional positions shall be kept up to date and be clear for roles that impact its management systems.	Guidance to 6.1
1.9.2 Functional positions shall have nominated, trained Deputies as back-up.	Guidance to 6.1
1.9.3 The Organization shall demonstrate how Deputies are deemed competent to fulfill deputized roles.	Guidance to 6.1
Guidance: Organograms, organizational charts greatly assist clarity in demonstrating job responsibilities, functional positions and deputies.	Guidance to 6.1
1.10 A current list of all service providers for the Organization shall be maintained.	4.7
1.10.1 Service providers for the Organization shall have contract agreements in place.	4.7.1
2.0 Risk Assessment	
2.1 The Organization shall perform a documented risk assessment which addresses the Targeted Threshold Tolerance Level(s) against which the Organization is seeking certification.	2.1.1
2.2 The Organization shall perform a documented risk assessment which is HACCP-based, evaluating all stages of their processes where the risk of GMO contamination is possible.	Removed
2.2.1 The Organization shall perform a documented risk assessment which addresses possible GMO contamination that may be present in its sourcing region.	2.1.6 2.1.6.1
2.3 Products that are a GMO risk and have no testable protein or DNA, or those GMOs for which there are currently no analytic detection methods available, shall undergo a risk assessment to determine what other methods are best suited to assure that certified products are Non-GMO, including but not limited to the following:	2.1.4.5
2.3.1.1 Documentation attesting to the Non-GMO nature of the sourced ingredients (as defined by this Standard) for which there are currently no available analytic detection methods available (e.g. products of gene editing), of all lots used for certified products.	2.3.3.1
2.3.1.2 Isotope testing may be considered as an option to validate country or region of origin.	2.3.3.2
2.3.2 The risk assessment shall include known and reasonably foreseeable risks with its suppliers as well as within the Organization itself.	Removed
2.3.3 Contractors or subcontracted organizations that perform any handling, processing, distribution or storage shall be included in the risk assessment to ensure its product status and integrity is maintained.	2.1.6 2.1.6.1

2.3.4 Product changeover from GMO containing inputs/products to Non-GMO production shall be evaluated in the risk assessment for possible GMO contamination risks.	4.3.1
2.3.5 Equipment flushing procedures used to segregate inputs/products shall be included in the risk assessment.	4.3.2
2.4 Product changeover and/or flushing from GMO containing inputs/products to Non-GMO production shall be fully validated using appropriate sampling and testing to ensure exclusion of GMO.	4.3.2
2.5 The Organization shall perform a documented HACCP-based risk assessment evaluating all inputs to determine whether there is a risk of GMO contamination.	2.1.1 additional clauses of sections 2 and 4
2.5.1 The risk assessment shall consider sources of GMO contamination that may not be testable, e.g., refined oils with no DNA or protein, or highly processed inputs.	2.3.3 3.3.2.1
2.5.2 The risk assessment shall identify which inputs are at-risk and shall be required to have documentation to validate the input meets the designated GMO threshold.	2.1. 1 additional clause of section 2
2.6 Appropriate control measures shall be implemented for each identified risk to ensure that contamination or cross-contamination shall not occur.	4.2
2.6.1 Identified control points shall be documented and validated by scientific means through appropriate sampling and testing methods.	4.2.1
2.7 The Organization shall have an established and documented risk-based sampling and testing plan based on identified risks from the risk assessment.	3.1
2.7.1 Sampling plans shall be written and detail the sample methods for each sampling event identified in the risk assessment.	3.1
2.7.2 Sampling and testing plans shall be verified and validated at a minimum annually.	3.6
2.8 The Risk Assessment Plan shall be dated and signed by the appropriate Quality Assurance Manager and a Senior Representative with authority for decision making.	6.1
2.9 The Risk Assessment Plan shall be frequently reviewed and updated at least once every 12 months or whenever any change takes place that may affect the Non-GMO status of the product.	2.1.1
This shall include but not be limited to a change of:	
2.9.1 Targeted Threshold Tolerance Level(s),	
2.9.2 List(s) of relevant legally approved and non-approved GMOs in their target markets,	
2.9.3 Supplier(s) of inputs, (including country or region of origin),	
2.9.4 Ingredient(s) or ingredient source(s),	
2.9.5 Processing conditions or equipment,	
2.9.6 Storage or distribution conditions,	

2.9.7 Change in job responsibilities,	
2.9.8 Developments in scientific information associated with ingredients, process or product, including government approval, legal or illegal release, and analytical detection methods	
2.10 Changes to the Risk Assessment Plan shall be subject to document control.	6.1 6.3
3.0 Control of Processes	
3.1 The Organization shall ensure it stays current and up to date on all scientific and technical developments, industry codes, and any new legislation for the country the product is made in and/or shipped to.	2.1.1
3.2 The Organization shall maintain an inventory system that effectively accounts for all inputs and finished products that are Non-GMO.	4.4.1
3.3 Based on a documented Risk Assessment Program, the Organization shall implement a hold and release program for each lot or batch that bears the FoodChain ID Non-GMO Certification.	4.8
3.3.1 The Organization shall contact FoodChain ID immediately if a lot or batch bearing the FoodChain ID Non-GMO claim is found to be out of compliance.	4.10
Guidance: The incident should trigger a review of the corrective action procedure so that relevant changes are made to prevent recurrence. It is good practice for incidents to be reviewed again during the annual internal audit to confirm corrective action was effective.	4.9
3.4 An effective and documented recall/withdrawal procedure shall be in place.	4.8.1
3.5 A recall/withdrawal procedure shall include at a minimum:	4.8.1.1
3.5.1 Emergency contact details for contacting FoodChain ID during a recall/withdrawal situation;	4.8.1.1
3.5.2 A documented trial recall exercise performed at least once a year that is independent of a traceability test; and	4.8.1.2
3.5.3 Methods for retrieving and disposing of recalled/withdrawn product.	4.8.1.3
4.0 Control of Inputs	
4.1 The Organization shall identify their Targeted Threshold Tolerance Level(s) for the presence of GMOs for their inputs and products.	2.1.2
4.2 Based on a documented Risk Assessment Program, there shall be a procedure for supplier approval including spot purchases to determine the risk of contamination or cross contamination by GMO inputs/ingredients. Based on a documented Risk Assessment Program, supplier approval shall include the following documentation:	2.1.3
4.2.1 A statement that declares at-risk inputs are Non-GMO per the Standard's definition.	2.1.4.3
4.2.2 Testing that confirms at-risk inputs meet the Targeted Threshold Tolerance Level(s) for the presence of GMO for each lot of purchased at-risk inputs.	2.1.4.4

4.2.3 Inputs that have no testable protein or DNA shall have full Non-GMO traceability back to the source where testable protein or DNA is present. This shall include testing which demonstrates that tolerances have been met.	2.1.4.5
4.3 Input specifications shall be congruent with the Targeted Threshold Tolerance Level(s) of the FoodChain ID Non-GMO Global Standard certification program selected with respect to the target market.	2.3.1
4.3.1 Input specifications shall be reviewed annually at a minimum.	2.1.3.1
4.3.2 Specification sheets shall include country of origin	2.1.4.2
4.3.3 Input specifications shall be updated when a new supplier is sought or if changes have been made to the specification.	2.1.3.2
4.4 At-risk inputs shall be cross-checked with specification sheets to verify conformance has been met.	2.1.5
4.5 Inputs used in products certified under the FoodChain ID Non-GMO certification program shall not be produced from or with genetically modified materials or derivatives thereof even if the genetically modified material is not present in the final product.	2.2.2
4.6 Micro-inputs produced by or with genetic modification shall be in conformance with the target threshold and target market region requirements concerning micro-inputs.	Removed
4.7 Use of GM varieties of livestock and/or animals including cloned livestock animals is prohibited.	2.2.2
4.7.1a Best Practice - Livestock and/or animals, e.g., cattle, swine, poultry, fish, bees, either raised for slaughter or raised for their by-products, shall be fed a Non-GM diet from birth or not later than the time of weaning or no later than three days after hatching; or 4.7.1b Acceptable Practice - Livestock/Animals must pass through the following conversion periods to qualify for FoodChain ID Non-GMO certification status: i. For swine - the entire fattening period, starting with a maximum weight of 35 kilograms; ii. For cattle and equidae for meat production - 12 months; iii. Livestock for milk production - 3 months or, 2 weeks in case of acquisition of new animals already in milk for the renewal of the herd; iv. Laying hens and poultry for egg production - 6 weeks; v. Poultry and aquaculture animals - the entire fattening period; vi. Other farm animals - during the year prior to slaughter; for those whose life span is less than 1 year, for the three quarters of their life span; vii. Bees - there is no specific conversion period.	4.12.2
4.8 The use of GMO drugs or hormones for livestock and/or animals other than for medical reasons are prohibited.	4.12.4
Guidance: The use of rBGH growth hormone is prohibited.	2.2.2

4.8.1 The prohibition on use of GMOs and products produced by and from GMOs shall not apply to veterinary medicinal products.	4.12.4
4.9 Organizations seeking seed as an input for growing as a grain or for seed production should consider that GMO presence in seed should be significantly below their selected Targeted Threshold Tolerance Level(s).	4.11.1
5.0 Internal Audit	
5.1 An annual internal audit against the FoodChain ID Non-GMO Global Standard shall be carried out by the Organization to identify areas of non-conformance.	6.5
5.2 The Organization shall have a documented internal audit procedure.	6.5.1
5.2.1 The procedure shall identify those responsible for conducting the internal audit.	6.5.1.1
5.2.2 The procedure shall include responsibilities for investigation into non-conformities resulting from the internal audit.	6.5.1.2
5.2.3 The investigation into non-conformities shall include documented:	6.5.1.3
5.2.3.1 Corrective action;	6.5.1.3.1
5.2.3.2 Root cause analysis;	6.5.1.3.2
5.2.3.3 Risk assessment; and	6.5.1.3.3
5.2.3.4 Preventative measures.	6.5.1.3.4
5.3 A review of the effectiveness of corrective actions where non-conformities are identified shall be part of the corrective action program. The review shall include but not limited to the following:	6.5.2
5.3.1 Feedback and findings from internal audits;	6.5.2.1
5.3.2 Legislative, technical, and industry developments relevant to the Non-GMO program;	6.5.2.2
5.3.3 Verification that the quality system, quality manual, procedures, testing methods, training programs, etc., are current and in compliance;	6.5.2.3
5.3.4 Supplier performance	6.5.2.4
5.3.5 Corrective actions and out-of-specification product; and	6.5.2.5
5.3.6 Customer complaints and complaint trend analysis.	6.5.2.6
5.4 A trend analysis shall be used to identify re-occurring non-conformance to eliminate the re-occurrence and assess risk of re-occurrence.	6.5.3
5.5 Contractors or subcontracted organizations performances shall be reviewed minimum annually, based on risk and be documented.	6.5.4
6.0 Records	
6.1 Records and data shall be maintained for all processes essential for the integrity of the FoodChain ID Program.	6.6

6.2 All records shall be legible.	6.6.2
6.3 Records that have been amended shall be countersigned and dated by the person authorizing the change.	6.6.3
6.4 All records used to demonstrate conformance to the FoodChain ID Non-GMO Global Standard shall be retained for a minimum of five (5) years.	6.6.4
Guidance: Five (5) years are standard best practices, longer retention of records should be considered for products with a long shelf line.	Guidance to 6.6.4
7.0 Training	
7.1 The Organization shall have a documented training program for employees, agency personnel, temporary staff, and contractors.	6.1
7.2 The Organization shall demonstrate that employees are competent in their job responsibilities and functional positions through training, work experience and/or qualification.	Removed
7.3 GMO awareness training shall be provided to all employees, agency personnel, temporary staff, and contractors to enable them to understand the aims and objectives of the Organization's Non-GMO program including the FoodChain ID Non-GMO Global Standard.	6.4
7.4 Procedure training shall be provided to all employees managing or executing any key function of the certification program that will enable them to understand their designated tasks and responsibilities.	6.4
7.5 Changes in processes, procedures, and revisions of documentation shall require a training update for the employees responsible for those functions of the program.	6.4.1
Guidance: Training updates shall focus upon those aspects of the process that have been changed and the reasons for the change.	Removed
7.6 Training records shall include: 7.6.1 The full name and signature of the person who delivered the training; 7.6.2 The date and duration of the training; 7.6.3 The title of or course content; and 7.6.4 The full name(s) and signature(s) of the person(s) who received the training.	6.4.2 6.4.2.1 6.4.2.2 6.4.2.3 6.4.2.4
7.7 Where training is undertaken by agencies on behalf of the Organization, records of the training shall be documented, and training materials made available.	6.4 6.4.2
7.8 Refresher training shall take place at appropriate intervals based on risk to ensure that staff maintains the required level of knowledge for the effective operation of the program.	6.4.1
8.0 Segregation	
8.1 Areas that have been identified as a contamination risk shall have a written Risk Assessment Plan which provides the instructions to eliminate or reduce the risk.	4.3.1

8.2 Where appropriate and based on the Risk Assessment Plan, areas identified as a contamination risk shall be inspected, cleaned, and/or purged.	4.3.2
8.3 Areas identified as a contamination risk that are required to be inspected, cleaned, purged and/or sampled for testing shall have records of the action taken.	4.2.1
8.4 Records for inspection, cleaning, purging and/or sampling for testing shall include:	4.3.2 6.1 6.6
8.4.1 Description of the action taken to reduce the identified risk;	4.3.1
8.4.2 Full name and signature of the person who completed the action taken; and	6.1 6.6
8.4.3 Date the action taken.	6.1 6.6
8.5 Segregation of Livestock and/or animals (if applicable) Livestock and/or animals used for the production of FoodChain ID certified products shall be segregated from other livestock throughout their lifespan.	4.12.1
8.5.1 Segregation shall be effective and, where appropriate, individual livestock and/or animals shall be marked or tagged to facilitate segregation.	4.12.1.1
Guidance: Identification may be accomplished by a variety of methods such as ear tags or other physical means.	Removed
8.5.2 Grazing animals certified to the FoodChain ID Standard shall be prevented from feeding on GM crops.	4.12.3
8.6 Segregation of Seed Sources (if applicable) Procedures shall be in place to prevent previously planted GMO crops from germinating and contaminating fields intended for production of certified Non-GMO crops.	4.11.3
Guidance: The practice of good field hygiene should be adopted in order to minimize GM volunteer plants.	Removed
9.0 Traceability	
9.1 The QMS shall have a Traceability Program to ensure that traceability can be demonstrated both backwards (trace) and forwards (track) from inputs, through work in process, to finished product.	5.1
9.2 Full traceability shall be achievable within 4 hours.	5.3
9.3 Records must link inputs and/or finished product both backwards and forwards; this includes consignments managed under chain of custody.	5.1
9.4 Processing or production records must include production period, ingredients and inputs used, input identification (SKU number(s), lot number(s), amount, and product loss during processing.	5.4
9.5 The Traceability Program shall include primary packaging/labelling and raw materials relevant to its certified products.	5.5

9.6 The Organization shall annually test the effectiveness of the Traceability Program (including packaging/labelling) both backwards (trace) and forwards (track) to ensure traceability can be demonstrated.	5.2
9.7 A running mass balance shall be maintained for inputs and outputs correlating the amounts of compliant (or certified) inputs with amounts of certified outputs.	5.6.2
9.7.1 The use of rework in the production of product certified to the FoodChain ID Non-GMO Global Standard must be recorded in the product mass balance.	5.6.1
9.8 A running mass balance shall include identification of constituent batches and their proportions by lot number. A new lot number or proper identification must be assigned for the composite lot as well as for the composite or split consignment.	5.6.2
Guidance: Consolidation of batches to create a new master batch is accepted provided the organization can identify the constituents. One should consider (a) production lots and (b) split consignments therefrom; (d) composite lots made from other production lots in various proportions, and (d) split consignments from composite lots.	Removed
9.9 A procedure shall be in place for customer service, inventory management, and order fulfilment procedures to verify that the correct certified product consignments or product lots have been shipped to the correct customers.	5.7
9.10 All finished products in packages must be lot marked, enabling traceability to raw materials used in their production. Where the material is supplied in bulk, a unique lot identifier must be associated with each specific lot.	5.8
9.11 All goods shipped in bulk, where packaging or labels are not feasible, shall be duly identified on associated documentation with a lot or production code which allows for traceability back through all links in the chain of custody of the goods involved.	5.9
10.0 Sampling	
10.1 The QMS shall have a documented Sampling Plan that is risk based and established for inputs and finished product identified as at-risk for GM contamination.	3.1
Guidance: Established codes of practice, GMPs or industry standards are useful when planning a risk-based sampling protocol; however, organizations still need to ensure the objectives of the Non-GMO certification program are met.	Removed
10.1.1 Inputs or Products that have no testable protein or DNA based on Risk Assessment may be exempt from sampling.	2.1.4.3 2.3.3
10.1.2 Immunologically screening (strip tests) may be used for unprocessed raw material (inputs) as appropriate and based on risk assessment as an adjunct approach when rapid testing for the presence of GM contamination is essential.	3.4
Guidance: When Immunologically screening is used, the spent test strip should be photographed or digitally scanned for record keeping. If test strips are retained for records, appropriate measures must be made to stop the immunological reaction by removing the respective parts of the strip, otherwise the result may change over time.	Guidance to 3.4
10.2 The sampling shall be carried out according to a scheduled plan, based on the Risk Assessment Plan.	3.1 3.2.1

10.3 Sampling method shall not itself cross-contaminate either the input/product or sample.	3.2.7
10.4 Archive samples or retainers shall be held for the time frame during which the product would reasonably be expected to remain in the supply chain or based on risk assessment.	3.2.5
10.4.1 Individual sub-samples which made up a composite sample should be retained to permit individual sample testing in the event of a non-conforming composite result.	3.2.6
11.0 Testing	
11.1 The QMS shall have a documented Testing Plan that is risk based.	3.1
11.2 Test results shall confirm the GM allowance thresholds for the presence of GM have met the Targeted Threshold Tolerance Level(s) of the FoodChain ID Non-GMO Global Standard.	3.3
11.3 PCR testing used to validate the GM allowance thresholds for the presence of GM has met the Targeted Threshold Tolerance Level(s) shall be through a FoodChain ID approved laboratory.	3.3.5
Guidance: For consistency, uniformity and to reduce variation and error in the FoodChain ID Non-GMO Certification Program, it is essential that GMO testing procedures and the analysis of test results be conducted in a uniform, consistent, and scientifically robust manner. The testing methods selected for this purpose are those that have been internationally established by the Global Laboratory Alliance (GLA).	3.3.5.1
Laboratories that are not GLA members may either join, or license relevant methods from the GLA to satisfy the requirement of conducting PCR testing according to FoodChain ID approved methods. Such laboratories must be and maintain ISO ISO/IEC 17025:2005 (BS EN ISO/IEC 17025:2005) accreditation by their national accreditation body.	3.3.5.1
11.4 All FoodChain ID certified products must demonstrate Non-GMO status through PCR testing of product at a point where sufficient DNA is present to validate the Targeted Threshold Tolerance Level(s) of the FoodChain ID Non-GMO Global Standard,	3.3.2
11.5 PCR testing methods shall include the screening of specific GM traits, non-approved varieties and appropriate GM tolerance levels as identified in the Testing Plan.	3.3.3
Guidance: In the case of newer gene-edited varieties and as detection techniques become available, these will be reviewed and approved for validation by FoodChain ID.	Footnote to 3.3.2.1
11.5.1 The Testing Plan shall include consideration of possible risks of contamination by commercialized varieties that are unable to be tested due to unavailability of the genomic map and/or the absence of testing reagents.	3.3.2.1
11.6 Inputs or Products that have no testable protein or DNA based on the Risk Assessment shall be required to have evidence through testing that the input or product was sourced from Non-GMO inputs.	2.1.4.3 2.3.3
11.7 Organizations shall retain all applicable test results to validate Targeted Threshold Tolerance Level(s) have been met.	3.3.6
12.0 Labeling and Label Claims	

12.1 The Organization shall claim FoodChain ID certification only for the facilities or sites for which FoodChain ID certification status has been awarded.	1.3
12.2 Where the Organization deals with both certified and uncertified products, it must ensure that the FoodChain ID Non-GMO logo is only used in respect to FoodChain ID certified products and that certified products are clearly distinguished from uncertified products.	1.6
12.3 Where the Organization elects to use the FoodChain ID Non-GMO logo or another Non-GMO related claim, the product bearing the claim shall satisfy the requirements set forth within the countries where the products are produced and where final products are intended for sale.	1.1.2
12.4 The FoodChain ID Non-GMO logo shall only be applied to products that meet the Targeted Threshold Tolerance Level(s) of the FoodChain ID Non-GMO Global Standard.	1.1 1.3