Guidance Document for Co-existence between Organic and GMO Cotton in India

Final version 2010 for circulation

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1. Acknowledgements

A project such as this, simple though it may seem to be from the outside, is surprisingly complex to organise and see through to completion. It requires political sensitivity, determined diplomacy, clear vision, strategic thinking, good organisation and in-depth knowledge to bring it all together. Jens Soth has all these qualities, which has made my job so much easier, and a pleasure.

Without the funding from C&A, it would never have happened, so I pay tribute to Phil Chamberlain and C&A for facilitating this and for their general support of organic textiles and their concern for its integrity.

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With the organic market growing as it is, the authorities have an important role to play and we were very lucky to benefit from the wide knowledge of MV Venugopalan of CICR and the insights he provided.

But we wouldn't have been able to make any headway without those on the ground who are involved in the issues day by day. Rohit Doshi of Mahima and Shreyaskar Chaudhary of Pratibha provided invaluable insights into the problems we were trying to address and the practicalities of what came up as answers. They were very much in the hot seat and gave of their experience freely and sometimes bravely - thank you to both.

The other vital constituent is certification, on which rests so much of the integrity of the chain. I am hugely grateful to Umesh Chandrasekhar of IMO, Selvam Daniel of Ecocert and Dirk Teichert and Pankaj Sinha of Control Union for sharing their expertise so openly and working together so effectively.

Finally, I would like to thank all these contributors collectively for coming together in a spirit of cooperation and mutual trust and respect. They have all helped to produce a very positive document.

Francis Blake
Editor

2. Introduction

In January 2010, a number of press reports in Europe published articles under the headline "Label Scandal", claiming that various retailers sold certified organic textiles sourced from India, "knowing that there were traces of GMO in them". There was an immediate reaction from both retailers and NGOs saying that many of the assertions in these articles were unfounded, exaggerated or unsubstantiated. Despite such criticism, these various articles stimulated various companies to review opportunities to further improve the integrity of their organic cotton supply chains.

This guidance document is the result of just such a review, by C&A (Europe's largest provider of clothing made of organically grown cotton, selling some €200million of organic textiles throughout its 1353 stores in 2009). Most of C&A's cotton is sourced from India.

With some 70% of conventional cotton in India now being derived from GM seed, and with the small size of most Indian farm holdings, the risks of cross-contamination are likely only to increase. This can arise from a number of sources, including from using GM seed, through cross-pollination, and by mixing (whether unintentional or intentional) during storage, transport, ginning and further processing.

Organic standards have clear rules about production and manufacturing, separation, traceability and record keeping. There are also clear requirements for inspection, certification and control by independent bodies, which is overseen by governmental agencies. In addition, the major brands and retailers tend to engage with their entire supply chains, demanding good transparency and traceability to ensure the integrity of their products.

However, risks are inevitable in a large country such as India where there are thousands of small farmers often on the edge of poverty and where the growing seasons are uncertain, clustered into cooperatives and other market-led groupings, where the supply chains are complex.

Organic standards can only go so far in addressing all the issues that emerge from such situations. Much has to be left to interpretation on the ground and to reacting to the individual circumstances of a particular project.

On the other hand, much of the resulting variability and uncertainty, and therefore risk, can be reduced by looking collectively at these issues, identifying weaknesses, sharing best practice and agreeing common protocols. This is the motivation for this guidance document.

3. Aim of the document

With the integrity of organic cotton from India under the spotlight, the aim of this guidance document it to provide a set of best practice protocols for organic cotton farming projects and their certifiers to avoid and prevent GM contamination.

The guidance is not a substitute for all the normal obligations of standards and certification. Rather, it is a supplement to ensure a more consistent and reliable approach to the sometimes wide variation in how these are applied “in the field”.

Organic integrity is an issue for the whole organic sector - punctured in one place, it affects all. Therefore the guidance document, though sponsored by C&A, is free for all to use, whether involved in the C&A supply chain or not, whether in India or not.

The aim is to help protect organic integrity for all.

4. Task force process to achieve the document

Twelve individuals drawn from the whole organic cotton supply chain met for an intensive two day workshop in Gurgaon, India, on 26th and 27th April 2010. The workshop was led by Jens Soth and Francis Blake.

Present were:

Francis Blake	Guidance Document editor
Sandra Canstaneda	Organic Exchange
Phil Chamberlain	C&A (project owner)
Umesh Chandrasekhar	IMO Control
Shreyaskar Chaudhary	Pratibha (farmer /ginner / spinner)
Anita Chester	Cotton Connect South Asia
Selvam Daniel	Ecocert - India
Rohit Doshi	Mahima (farmer /ginner / spinner)
Pankaj Sinha	Control Union Certifications
Jens Soth	Helvetas - Coordinator
Dirk Teichert	Control Union Certifications
M.V. Venugopalan	CICR (Central Institute for Cotton Research India)

In addition, P.V.S.M. Gouri from APEDA (Indian accreditation body) was expecting to attend but was regrettably called away at the last minute on parliamentary business.

The task force used a number of tools, including preparatory questions, technical presentations, plenary discussions and smaller group sessions, using wall charts and other visual aids. Key were the overview graph (see chapter 7 below) which set out chronologically the main contamination pathways, and the fact sheets which comprise the main body of this guidance document.

The general process used for each contamination pathway was to scope current practice, identify weak points and possible measures to address them, then agree on the practical do's and don'ts that could be introduced, and therefore put into the fact sheets.

In its operation, the task force was guided by two important principles:

1. Chatham House Rules - everyone needed to feel free to speak their mind, to share their concerns and ideas in a spirit of cooperation and mutual trust; therefore everyone agreed that no comments or information gained in the meeting were attributable;

2. achieving consensus - everyone needed to be comfortable with the measures agreed, that they were practical, achievable and useful.

5. Process for further revision

The production of this guidance document marks the end of this particular project. However, a number of individuals and organisations have stressed the need for an ongoing process of review and amendment of the guidance document in the light of experience and future developments. The project owner, the coordinator and the editor all fully agree with this suggestion and welcome the possibility that this will happen.

It will be for others to take on this responsibility. Organic Exchange and Cotton Connect have both indicated an interest and it is proposed that those who wish to suggest amendments or other comments, or otherwise get involved in a future review, should contact one of these organisations:
www.organicexchange.org
www.cottonconnect.org.

6. Structure of fact sheets – how to read them

We have used a clear and simple fact sheet structure, so that they are easy to read and understand. Each fact sheet deals with just one contamination pathway and each has the same table format which is made up of the following boxes:

- Name of the contamination pathway
- Description of the issue / risk area
- Risk level - a combination of how likely it is to occur and what impact it would have
- Responsible actors - who is involved in this pathway
- Specific circumstances modifying/impacting the issue
- Do's and don'ts for farmers - in addition to the normal standards requirements
- Do's and don'ts for operators / ICS - in addition to the normal standards requirements
- Do's and don'ts for certifiers - in addition to the normal control requirements
- Reporting and information guidance - further brief points or explanation
- Best practice - further improvements - aspects that it might be beneficial to introduce in future if or when it was achievable
- Disputed cut-off levels / unresolved conflicting issues

The critical elements are the do's and don'ts. It is expected that these will be followed in full. If, for any reason, this is not possible, then it is strongly advised to contact the next up in the chain: farmers should contact their ICS; operators and ginners should contact their certifier; certifiers should contact their accreditor.

Of course, the final decision rests with the certifier and their accreditor.

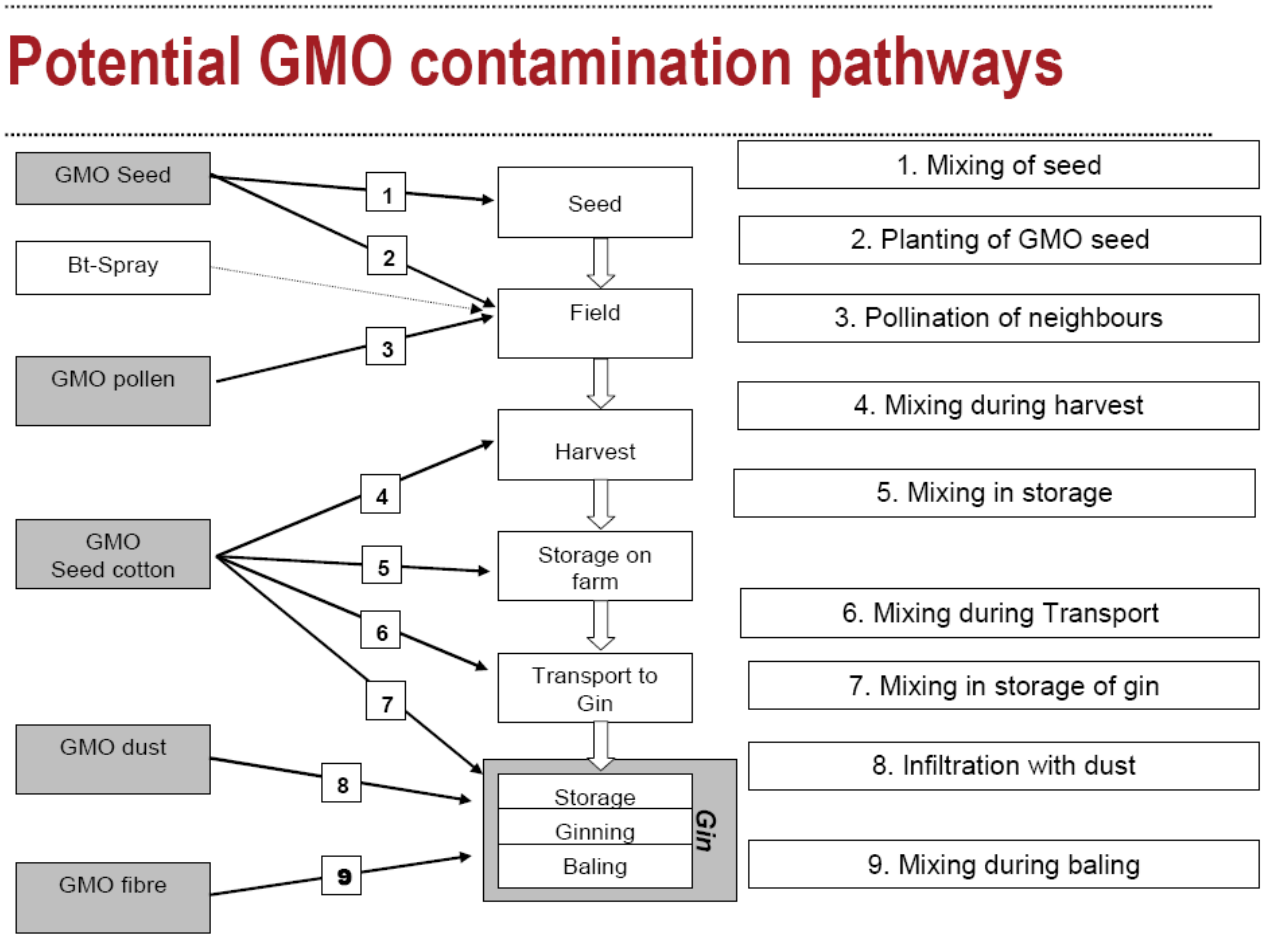
Terminology used

GMO or GM - genetically modified organism or genetically modified.

ICS - the vast majority of Indian organic cotton production is in coordinated projects involving a large number of small farmers. These are supervised by an internal control system (ICS) which the external certifier checks to ensure is operating properly and effectively. Thus, the ICS is the certified entity. It may or may not have its own storage, ginnery, etc.

Strip test - the in-field test to identify presence of the Bt protein, which would indicate it is GM (see also chapter 12. Testing protocol for further information).

7. Overview graph



8. Individual fact sheets

Pathways 1 and 2
Seed supply, verification and distribution

Description of the issue / risk area
Obtaining non-GM and uncontaminated seed is a critical first step. It is often limited in supply and cannot easily be obtained at short notice from the market.

Risk level	Responsible Actors
High **(high likelihood though medium damage)**	• ICS • Farmer • Certifier

Specific circumstances modifying / impacting the issue
Forward planning of seed requirements is vital to be assured of supplies of non-GM seeds, as is coordination of seed supply for the whole ICS.

Do's for farmers	Don'ts for farmers
• Keep a record of seed purchases, quantities, varieties, sowing dates • Retain all seed packets of bought seed and retain a seed sample from each batch of seeds (no need to do this for seed supplied through the ICS)	• Don't buy seeds from the market unless you can be absolutely sure they are genuinely non-GM • Don't buy seed from the market without the knowledge/ written permission from your ICS • Don't accept seeds or plants from conventional neighbours as these are likely to be GM

Do's for operators / ICS	Don'ts for operators / ICS
• Draw up a written seed management plan, to include advanced purchasing of seed, contingency planning, risk assessment (see two risk assessment examples in chapter 10)	• Don't leave it to the farmers to buy their own seed without at least arranging what they should buy and where from

• Purchase/reserve at least a 20% surplus as contingency for gap filling, etc • Keep a record of purchases, distribution, quantities, varieties, sowing dates • Check farmers' retained seed packets to verify acceptability • Verify acceptability of seed (NB any outside seed is assumed to be GMO unless proven otherwise) • To verify acceptability, check seed supplied with strip test • Retain a reference sample of all separate batches purchased • From all the above, identify farmers with seed at risk of being GM	

Do's for certifiers	**Don'ts for certifiers**
• Make a risk assessment of the project's seed management plan and its implementation • Test according to risk assessment	

Reporting and information guidance
The farmers need to be able to show that any seeds they buy are acceptable and the ICS needs to verify this. Better still, the ICS should manage seed procurement collectively to reduce the associated risks.

Best practices - further improvements
• ICS could consider breeding/multiplying its own seeds • *G. arboreum* is a different species to the GM cotton varieties and they won't cross-pollinate; the newer varieties of *G. arboreum* being developed could ensure purity of organic cotton • Certifiers should consider inspecting individually those farmers who have not received seed from or through the ICS • Pay special attention to farmers with good irrigation facilities where yields and inputs are likely to be higher and therefore, potentially, risks are greater

Disputed cut-off levels / unresolved conflicting issues
• Special consideration needs to be given in cases where there is a crop failure over and above what the 20% contingency can accommodate

Pathway 3
Growing stages - buffer distances & vegetation period

Description of the issue / risk area
Once planted, there is the potential for cross-pollination from neighbouring GM crops which will result in GM-contaminated cotton seed.

Risk level	**Responsible Actors**
High **(high likelihood though medium damage)**	• Farmer • ICS • Certifier

Specific circumstances modifying / impacting the issue (optional)
Cotton is largely self-fertile with only about 16% cross-pollination, so relatively short buffer distances should be sufficient to maintain purity (though CICR requires 50m distance to ensue 100% purity of Foundation Seeds). Bt sprays will cause the strip test to show positive, so there must be sufficient time between spraying and testing.

Do's for farmers	**Don'ts for farmers**
• Maintain a minimum 10 ft buffer distance from farm boundary to organic cotton. • Plant a buffer crop (not cotton) in the buffer zone. • Pull out volunteers (germinated from previous years) during weeding. • Record all Bt spray applications.	• Don't plant cotton in buffer zones.

Do's for operators / ICS	**Don'ts for operators / ICS**
• Check and record all buffer zones and buffer crops and all cases of GM cotton within 50m of organic crops. • Perform strip tests on bolls (minimum 10	• Don't test bolls younger than 10 days old. • Don't test bolls where there has been recent spraying with Bt.

days old) from the nearest row to GM crops • With this information, undertake a risk assessment of contamination from neighbouring GM crops with a view to segregating harvest of crops/rows at risk. • Take samples for testing of crops/rows at risk. NB if Bt spray is used, quick tests should be postponed. • Keep test record.	

Do's for certifiers	**Don'ts for certifiers**
• Review buffer records, risk assessments and test reports of ICS.	

Reporting and information guidance
The risk assessment will help to concentrate the measures at the areas of greatest risk, which the certifier can then verify. A different buffer crop provides a clearly identified demarcation, it can reduce the likelihood of cross-pollination, and it can also be beneficial in other ways.

Best practices - further improvements
• Consider increasing the buffer distance where this is feasible.

Disputed cut-off levels / unresolved conflicting issues
• Many farms have such small fields that greater buffer distances would take up such a high proportion of the cropping land as to jeopardise economic viability.

Pathways 4 and 5
Harvest and farm storage

Description of the issue / risk area
Parallel production (the same crop organic and conventional on the same holding) is not allowed, but there may be parallel production within the same household (e.g. between siblings or father and son) which could constitute a significant risk if they share storage.

Risk level	Responsible Actors
High **(high likelihood, high damage potential)**	• Farmer • ICS • Certifier

Specific circumstances modifying / impacting the issue (optional)

Do's for farmers	Don'ts for farmers
• If storing at home, place organic seed cotton in an exclusive, separate room, or alternatively in sealed bags. • Keep a record of incoming and outgoing seed cotton.	• Don't store organic and non-organic (especially GM) seed cotton in the same room, unless in sealed bags.

Do's for operators / ICS	Don'ts for operators / ICS
• Identify cases of parallel production in the same household to evaluate risk. • Fix maximum level of production by yield estimation. • Check and collate records of farmers' incoming and outgoing seed cotton (for use in verifying yields against estimates).	

Do's for certifiers	Don'ts for certifiers
• Conduct one inspection visit for yield estimation. • Issue guidance for yield estimation.	

Reporting and information guidance
Setting limits by yield estimation can help prevent fraud, if done accurately. It is expected that certifiers will carry out their normal mass-balance checks to verify that quantities of incoming and outgoing goods are consistent with each other.

Best practices - further improvements
• Consider the introduction of ICS-based storage. • Consider discouraging farmers from using the same store for both organic & non-organic seed cotton, or rewarding those who have an exclusive store for organic cotton, eg by paying an extra premium (in recognition of the lower risk and less measures that have to be taken). • Consider the use of purchase slips or other mechanisms to record sale/delivery of seed cotton consignments by the farmers. This can then be part of verifying yields against estimates.

Disputed cut-off levels / unresolved conflicting issues

Pathway 6
Transport (plot to farm storage / farm to gin) / trade

Description of the issue / risk area
Transport vehicles also used for non-organic cotton may have residues that could contaminate the organic crop.

Risk level	**Responsible Actors**
Medium	• Farmer • ICS

Specific circumstances modifying / impacting the issue (optional)
If the harvested crop has to be taken to the market, there are further risks of cross-contamination and mixing.

Do's for farmers	**Don'ts for farmers**
• If delivering direct to the gin, take relevant papers to prove the authenticity of the crop.	• Don't unload seed cotton at the market place (unless there are provisions for clean and separate storage).

Do's for operators / ICS	**Don'ts for operators / ICS**
• Vehicles must be cleaned and this must be recorded. • Trucks have to carry farmer list, harvest details and purchase slip (so the gin can verify acceptability of the load).	• Don't allow seed cotton to be unloaded at market (unless there are provisions for clean and separate storage).

Do's for certifiers	**Don'ts for certifiers**
• Check that vehicle cleaning records and other transport records are kept and in order	

Reporting and information guidance
The documentation farmers and truck drivers carry need to confirm they are delivering acceptable loads.

Best practices - further improvements
• The certifier should consider cross-checking the authenticity of the vehicle numbers and the agreements with the transporters.

Disputed cut-off levels / unresolved conflicting issues

Pathway 7
Gin – Preginning processes

Description of the issue / risk area
There is significant potential for mixing of organic and non-organic cotton seed in gins, especially if there are not clear procedures and separation during cotton seed reception and storage.

Risk level	Responsible Actors
High	• Farmer (if transporting to gin themselves) • ICS • Ginner • People involved in transport • Certifier

Specific circumstances modifying / impacting the issue (optional)
The potential for mixing and cross-contamination is much higher at non-dedicated gins.

Do's for operators / ICS	Don'ts for operators / ICS
• Ensure the gin has details of farmers and other sources of cotton seed, plus expected weights.	

Do's for ginners / gin staff	Don'ts ginners / gin staff
• Cross-check weight and source with information provided by the ICS. • Maintain a register of arrivals (farmer, quantities). • Take a reference sample of cotton seed from each truck (1 per 5 tonne). • Take a reference sample of cotton seed from each 10 bullock carts (making up a	• Don't accept organic cotton seed without verifying it is from an acceptable source. • Don't allow any cross-contaminate when turning for breathing.

running sample). • Record and label each reference sample • Maintain 10m separation (clear ground) between organic and non-organic heaps. • Ensure clear identification of heaps. • Maintain a heap register to cross-reference with arrivals. • Make a strip test of each heap of 5 to 50 tons (refer to GAFTA 124 sampling guidelines for sampling method see www.gafta.com). •	

Do's for certifiers	**Don'ts for certifiers**
• Check arrivals documentation (to cross-check with yield estimates), sampling records and heap registers. • In cases of doubt or suspicion, take samples for testing, or take own samples.	

Reporting and information guidance
The ginners need to be able to verify that the loads they receive are acceptable and they must be able to trace each load through the gin in case problems subsequently emerge.

Best practices - further improvements
• ICS staff should be present during the ginning activities. • Consider requiring heaps to be stored on raised concrete platforms. • Consider requiring wooden partitions or low walls to contain organic heaps. • Cover heaps when they are dry. • Consider pneumatic feeders. • Consider dedicated gins.

Disputed cut-off levels / unresolved conflicting issues

Pathway 8
Gin –Core of ginning operations

Description of the issue / risk area
Poorly cleaned equipment could result in cross-contamination of organic cotton during ginning.

Risk level	**Responsible Actors**
Medium	• Farmer (if transporting to gin themselves) • ICS • Ginner • Certifier

Specific circumstances modifying / impacting the issue (optional)
There should be minimal risk in dedicated organic gins.

Do's for ginners / ginning staff	**Don'ts for ginners / ginning staff**
• Identify critical control points (CCPs) for organic integrity and draw up a process manual to cover all relevant aspects • Draw up effective cleaning schedules and checklists • Keep cleaning and maintenance records • Keep process records • For automatic operations and those that can't be properly cleaned, carry out a bleed/purge run of 10 minutes on full operation using organic cotton seed, with the output being assigned to non-organic produce	• Don't assign the output of a bleed run to organic produce

Do's for certifiers	**Don'ts for certifiers**
• Assess process manual and verify it is being followed	

• Check cleaning and process records, including bleed/purge runs taken • In cases of doubt or suspicion, take samples for testing, or take own samples	

Reporting and information guidance
A bleed/purge run is not a fail-safe way to eliminate the possibility of contamination from previous production, but should reduce the risk. It is expected that certifiers will conduct their normal mass-balance checks to verify that quantities of incoming and outgoing goods are consistent with each other.

Best practices - further improvements
• Consider introducing a requirement for ISO 9000 Quality Management System • Consider moving to dedicated gins

Disputed cut-off levels / unresolved conflicting issues

Pathway 9
Gin – Post ginning & Baling

Description of the issue / risk area
Separation and correct identification of the lint post-ginning is necessary to ensure no mixing up to baling.

Risk level	**Responsible Actors**
High (low likelihood, but high damage potential)	• Ginner • ICS • Certifier

Specific circumstances modifying / impacting the issue (optional)

Do's for ginners / ginning staff	**Don'ts for ginning staff**
• Record all processes: date of pressing, weight, lot number, running number, purchase and sales • Ensure separate storage post-ginning • Label each bale with full identification	

Do's for certifiers	**Don'ts for certifiers**
• Check plausibility of mass balance and purchase & sales recording (e.g. via taxation)	

Reporting and information guidance
The labelling of the bale and the recording system should allow traceability right back through the system.

Best practices - further improvements
• Consider introducing bale ties that are distinctive for organic (eg colour) • Consider a label that is secured by the bale tie

Disputed cut-off levels / unresolved conflicting issues
• The wrapping of bales in non-organic cotton material

11. Yield estimation protocol

Harvest estimates in organic cotton production

Proposed procedure for smallholder projects working with an Internal Control System (ICS)

The procedure proposed below is the result of a discussion of the Global Organic Cotton Community Platform (www.organiccotton.org). Detailed contributions are accessible there.

1) Why harvest estimates are needed and how they are done

Harvest estimates in organic cotton production serve two distinct purposes:

A) Anticipating the total harvest of a project or region for planning and management in order to know how much in total one needs to pre-finance, transport, gin, store, sell etc.

B) Ensuring that each farmer delivers only the quantity of cotton that was actually produced on certified organic fields (and not from non-organic sources).

Certification of organic production based on an internal control system requires that individual harvest estimates (→ purpose B) are available for each farmer in order to check traceability of the organic product.

2) Estimating the total harvest of a group of farmers

Total cotton harvest estimates of a given group of farmers can be estimated in three different ways. The three methods are used in different phases in the crop cycle. Results of one method can be used to cross-check and refine the results of the other methods.

A1) Based on expected average yield

Multiply the number of participating farmers with the average cotton area per farmer (measured or estimated) and the average yield expected for the farmer group in this year. The average expected yield can be estimated based on the results of previous years. If weather conditions up to the moment of the estimate deterred from normal years, the expected yield should be adapted accordingly.

Note: This method provides a very rough but quick estimate early in the season.

A2) Based on boll counts on a sample of plots

Randomly select a sample of cotton plots (10-30 plots per zone or group, depending on the number of farmers). In each sample plot, determine the number of cotton plants and the average number of healthy bolls per plant based on row and boll counts on representative sections of the field. This can for example be done in one of the following ways:

- Select 10 times 2m of cotton rows evenly spread over the plot, and count the healthy bolls on the respective plants. Multiply the total number of bolls with the number of rows that are present in 10m. Multiply the result with 50 to get the number of bolls per hectare.
- Place 5 frames of 2x2 meters evenly distributed over the cotton plot and count the number of healthy bolls. Multiply the total number of bolls with 500 to get the number of bolls per hectare.

The number of bolls per hectare is then multiplied with the average boll weight to get the estimated yield per hectare. For the average boll weight, use realistic figures for the respective variety, ideally based on previous field experience.

For the total harvest estimate of the group, multiply the average expected yield of the sampled plots with the total registered cotton acreage.

Note: This method provides a realistic estimate based on the actual conditions towards the mid of the season. However, the method is rather time consuming. The more accurate the estimate shall be, the larger should be the sample of plots and the number of cotton plants for the boll count.

A3) Based on the sum of individual harvest estimates

The total harvest of a group of farmers can also be estimated by summing up the individual harvest estimates for each farmer (see next paragraph).

Note: The accuracy of this estimate depends on the ability of the field staff to estimate the yield potential of a standing crop. As individual harvest estimates anyway need to be done for certification of an ICS, it is advisable to cross-check the estimate obtained by this method with the estimate based on method A2.

3) Using individual harvest estimates to check traceability

Individual harvest estimates need to be determined separately for each farm or plot, based on the specific site and crop conditions. At the occasion of the annual internal inspection, the inspector or field staff makes a rough estimate of the yield potential of the cotton plots. The estimate is based on:

- crop condition (boll formation, damage caused by pests),
- site condition (soil fertility),
- previous yields achieved on this farm, and
- the farmer's own assessment.

An experienced field staff should be able to do this estimate with an accuracy of +/- 50-100kg/ha. The estimated yield potential is noted in the internal inspection report.

Based on this yield estimate and the measured cotton surface, the total expected harvest of the farm is calculated (back in the office).

The individual harvest estimates need to be available at the time when the farmer delivers the cotton. If a farmer delivers more than 10% above the individual harvest estimate, investigations need to be done before accepting the cotton (e.g. by asking the concerned field staff or other group members, or visiting the plot).

Note: If the estimated average yield of the farmer group (determined by procedure A2) turns out to be considerably higher or lower than normal, all individual yield estimates may be reduced or increased accordingly (e.g. by 10%).

10. Two examples for risk assessments

Risk assessment scheme – example 1 (courtesy of IMO)

Potential Risk Area	Identified major risks			Evaluation of risk
	Y	N		
Seeds	☐	☐	Has the ICS operator made arrangements for the supply of the required quantity of untreated non-GMO seeds to all registered farmers for the current season	
	☐	☐	Does the ICS operator require all registered farmers to retain the empty packages of all the inputs, including seeds,used by them	
	☐	☐	Does the ICS verify the quality of the seeds actually used by the farmers thru empty packages,strip tests of seeds etc?	
Seeds	☐	☐	Does the ICS identify the farmers who used unverified inputs, including seeds, in the current season and exclude them from the purchase activities?	
Prevention of contamination at field level	☐	☐	. Does the ICS identify farmers who do not maintain hedges or buffer crops (different species from certifiable crops) and exclude them from purchase activities.	
Prevention of contamination at field level	☐	☐	Does the ICS perform a systematic and quantitative risk evaluation by analyzing sufficient samples from identified 'high risk' locations/fields	
Prevention of contamination at field level	☐	☐	Does the ICS carry out systematic and plausible yield estimations	
Purchase procedures	☐	☐	Is there a written and implemented procedure regarding the incorporation of the findings of the internal inspections about seeds, prevention of contamination etc in the purchase activities	
Bought in cotton bales at spinning	☐	☐	Does the operator verify organic status of bought in cotton bales thru TCs	
	☐	☐	.	
	☐	☐		
Sum of identified risks:				

Risk assessment scheme – example 2 (courtesy of Control Union)

Inspectors Risk Assessment of the project

Based on factors such as Size of land holding, Number of members in the group,Degree of similarity between Production System and Crop System, Intermingling/Co-mingling and Local Hazards

Name of the Client | *Client Number* | *Unit Number*

Name of the Inspector

Documents verified for risk Asse. — *ICS Risk Assessment*; *Self Assessment (IQS - NPOP)*

Issues of concern	Ref. Doc. & NPOP Clause No.	Risk Factor	Is it an ICS risk?	Location/& reason for risk	Occurrence (how frequently can it occur) High/Medium/Low	Severity (once it occurs, will it affect the integrity of the certification) High/Medium/Low	Risk Category (High/Med/low)	Rank	Selection Criteria (On what basis have you selected the risk and what are you going to select for verification)
Positive and preventive measures									
Contamination									
Use of Prohibited Substances									
Comingling									
				Risk of the project	Low		Total Rank of the project	0	

Ranking to be given for Risk Category =ICS related risk – 3, High-2; medium-1; low-NA

If the total rank is 1 to 4 - low risk project; 5 to 7 - medium risk project; and 8 or more - high risk project,

Legend - As per CUC — Low Risk 0 | Medium risk 0 | High Risk 0

Size of holding (farm area)

Total Land acreage of the farmers having more than 4 ha	x	Number of Farmers having less than 4 ha
Total Land area	x	number of farmers having 4ha or more (To be inspected individually)
Percentage of the area of farmers having 4ha or more	x	Total Number of Farmers

Number of Farmers in Group

Similarity between Production Systems and Crop System

Is the SFG located in Geographical proximity ?	yes/no	
Are there Similar Production systems ?	yes/no	(split/parallel/Similar)
Is there similar Crop Systems?	yes/no	(Arable/Horticultural/annual/perennial/Plantation/wild collection)

Conclusion

Can the Inspection be carried out on the basis of land holding? yes/no

Can the Inspection be carried out on the basis of geographical proximity? yes/no

Conclusion

Risk Categorization

Occurrence of hazard	Severity of impact on quality		
	Low	Medium	High
High (frequent)	Risk	Risk	Risk
Medium (possible)	X	Risk	Risk
Low	X	X	Risk

X : a non significant hazard that does not need to be considered

Instruction to Inspectors

1 The risks identified by the inspector as per the risk assessment should be inspected, and verified

2 If there are different production systemes, each type of production system is included in the sample to be inspected

3 If there are different crop systems, farms with each type of crop are included in the sample to be inspected

4 If the sample size has to be increased to include the inspection of all the crop systems, then the inspector should do so and mention the same as a note.

All the risks per state area should be given to the inspectors

Approach and methodology should be matching

Procedures to be implemented in the procedure manual

Assessment of risk mention table to be followed.