



# CCMAS41 Q&A

## Revision of the General Guidelines on Sampling

CXG 50 - 2004

### 1. Why is this topic important to the committee?



#### SUMMARY

The *Revised General Guidelines on Sampling* (**Revised Guidelines CXG 50**) are intended to provide information on the design of sampling plans for Codex Commodity Committees and governments to enable sampling plans to be designed so that product assessment, test methods, and limits, can be harmonized for each provision within Codex.

The **Revised Guidelines (CXG 50)** are of fundamental importance for facilitating and harmonizing world trade in foods by providing a range of statistically valid sampling plans applicable to most commodity types and situations. It is also necessary to consider fairness and cost in the design of sampling plans. While attribute plans may be 'simple' to design and use, variables plans may be more economical in terms of testing. The Guidelines provide information on both the design and evaluation of sampling plans and the sampling plan apps in the e-book provide for ease of use for those without access to statisticians.



This innovative use of 'apps' uses current technology to provide a simpler way to understand, design and evaluate sampling plans for the international trade of food commodities to ensure those plans are fair and valid.



#### BACKGROUND

The revision was agreed at the CCMAS 39 (see References below for the Report). The revision was necessary to simplify and make the Guidelines more readable, understandable and usable and to help Commodity Committees design statistical sampling plans appropriate for inspections under specifications in Codex standards.

There was also agreement to include new material in the revision, including guidance on sampling of inhomogeneous lots and measurement error adjustment in sampling, including clarification of the differences between measurement error and measurement uncertainty. CCMAS 39 agreed to a 'Prioritisation List' to cover the topics to be included in the revision process (see below References for the CCMAS 39 report with the terms of reference and prioritisation list).

While there was agreement to include, in the spirit of simplification, reference to sampling plan apps, this related work now sits outside the CXG 50 document but is included in the draft Information Document - E-book).

As the work on the revision of the Guidelines on Measurement Uncertainty (CXG 54 - 2004) had also commenced, CCMAS 39 also agreed to wait for the completion of the two sets of work to address the relationship between measurement uncertainty and sampling.

Subsequent consultation on the scope of the revision questioned what simplification meant, for example, not including new scientific material on sampling, or all the items on the agreed prioritisation list. There were diverging views on this question with the outcome being a revision that contained both.

The revision therefore includes both a simpler description of much of the statistical content of the current Guidelines, such as sampling plans by attributes, but also includes limitations, such as issues relating to the use of ISO plans. Importantly, it covers the agreed wider scope in the prioritisation list, for the design of a range of statistical sampling plans that consider both consumer's and producer's risks and in doing so, provide for the Codex objective of fair and valid acceptance sampling plans.

## 2.

### What stage is the work at?



The revised Guidelines (CXG 50) will be considered at Step 4. Comments have been requested on this Guideline at Step 3 through Circular Letter, CL 2021/10/OCS-MAS.

The agenda item contains a 'package' consisting of:

- a. Revised General Guidelines on Sampling (CXG 50-2004) (Appendix I)
- b. Information Document: Guide to the selection and design of sampling plans (Appendix II)
- c. Information Document: e-book (Codex Sampling) for General Guidelines on Sampling (CXG 50-2004) (Appendix III)

## 3.

### How did the EWG operate regarding comments received?

Prior to the cancellation of CCMAS41, a Circular Letter ([CL 2020/27/OCS-MAS](#)) was issued. With the onset of the COVID-19 pandemic and the consequential rescheduling of CCMAS41, the EWG was extended to continue this work. Comments (CX/MAS 20/41/9 Add.1) were received from 14 member states and 3 observer organizations.

New Zealand prepared a summary report that contained the comments received, along with responses and technical explanations, where appropriate. This report was posted on the [CCMAS EWG Forum](#) on 14 September 2020 (see References below for a copy of this). The EWG was invited to note the report, and that it would be the basis for the revised draft guidelines. New Zealand also noted that the guiding principles for this work included the terms of reference and prioritisation list, trying to accommodate the different views where there was not widespread support for a change, but also taking account of scientific validity (see below References for the CCMAS 39 report with the terms of reference and prioritisation list).

We also provided some clarity on two areas. One being 'Uncertainty from Sampling' and the other 'Measurement Uncertainty and Measurement Error' (see below References for a copy of these).

## 4.

### How did you use the extra time due to the postponement of CCMAS41 from 2020 to 2021?



As well as continuing to work on the [Revised Guidelines \(CXG 50\)](#) based on the guiding principles, we also included some new material and added to material already present to ensure the terms of reference were met. This included:

1. Supporting information documents – including a step-by-step procedure on the selection and design of sampling plans and an updated e-book and updated apps.
2. Removal of material relating to process control.
3. Inclusion of material on measurement error adjustment.
4. Information on bulk materials.
5. Some general information on sampling for inhomogeneous lots.
6. Updated roadmap to align the Revised Guidelines (CXG 50) with the e-book.

At the CCMAS Webinar in November 2020 we gave a presentation on progress of the [Revised Guidelines \(CXG 50\)](#) as well as practical examples to help understanding of design of a sampling plan using the sampling plan app. We also provided responses to questions raised at the Webinar and published these on the [CCMAS EWG Forum](#) on 24 December 2020. (see References below for a copy of this, as well as the presentation).

## 5.

### What were the critical choices / decisions you had to take and why did you take them?

New Zealand reviewed all the comments alongside the terms of reference. The key outcome was advising the EWG of both the summary of comments and responses, and that the guiding principles for this work included the terms of reference, trying to accommodate the different views where there was not widespread support for a change, but also taking account of statistical validity.

## 6.

### What are the key changes / features of the updated documents since the last session?



A key feature of the **Revised Guidelines (CXG50)** is the use of a 'package' for simplicity, ease of use and in particular, a step-by-step procedure to guide the selection and design of sampling plans. This is set out in Appendix II of the [CX/MAS 21/41/9](#).

There are also technical changes including:

- A focus on acceptance sampling plans, to control the risks of accepting poor quality product (Consumer's Risk) and of rejecting product of good quality (Producer's Risk).
- More information on attributes plans.
- Provision of a wider range of sampling plan options.
- Information on measurement error adjustment.
- Information on other matters related to sampling such as physical sampling.

## 7.

### How do you expect the discussion to develop at the session?

The **Revised Guidelines (CXG 50)** have benefited from the additional round of consultation following the postponement of CCMAS41 and we are confident we have addressed any concerns that have been raised. We therefore feel comfortable the draft is in good shape. We expect the session will provide an opportunity to clarify any remaining issues before agreeing to progress the standard.

We also expect that the Revised Guidelines (CXG 50) could advance while further work will be needed on the Information Documents – E-book and Guide.

## 8.

### What surprises might be in store?



We do not expect any surprises. This is because we have confidence in the process to date, which started with agreed Terms of Reference and has included the EWG consultation and comments and responses as well as CCMAS plenary discussion and presentations. The level of transparency associated with the process is seen through the progress of the different versions and the issue of information on the CCMAS Forum.

We expect that any technical or policy comments on the current version will have been submitted in response to the [Circular Letter CL 2021/10/OCS-MAS](#) through the OCS process [or communicated beforehand].

## 9.

### What background documents should less experienced delegates read before the meeting?



As well as the current agenda item (information follows), we recommend that that less experienced delegates familiarize themselves with the previous discussions on the need for the revision of the CXG 50. It would also be very useful to review the information presented at the recent webinar (see References).

The agenda item ([CX/MAS 21/41/9](#)) is formatted as a very long single document containing all of the following:

- Revised General Guidelines on Sampling (CXG 50-2004) (Appendix I)
- Information Document: Guide to the selection and design of sampling plans (Appendix II)
- Information Document: e-book (Codex Sampling) for General Guidelines on Sampling (CXG 50-2004) (Appendix III)
- List of EWG participants (Appendix IV).

We recommend reading the Revised Guidelines (CXG 50) (Appendix I) alongside the Step-by-Step procedure (Appendix II). To make it easier to do this, each Appendix is separated out for the purpose of these Q&As (see References).

Then read the e-book – much of the text content is similar to the **Revised Guidelines (CXG 50)** but there is more detail. What the e-book does contain is the links to the sampling plan 'apps'. For those not familiar with these, we recommend reading the Webinar Presentation alongside Section 2.3.1 in the e-book. It would be very useful to also try the sampling plan apps by clicking on the links to understand how the apps work.

# 10.

## What questions would you have expected to be asked in the coffee breaks in Budapest and can you answer them?

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### Bulk materials sampling plans?

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There is information on sampling plans for bulk materials in the CXG 50 (and refer to the step-by-step procedure for direction on where to find it - Sections 4.3 and 4.4 of CXG50). However, these plans are statistically complex, are most likely to be a one-off plan for the particular commodity, and may require additional statistical input. The information provided in the Revised Guidelines (CXG 50) is background and guidance so the user can make an informed decision on how to progress.

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### What's happening with the on-line version of the e-book?

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While work on the [Revised Guidelines \(CXG 50\)](#) is well advanced, there is more work to do on the e-book to complete the 'package' of information. There is also a decision to be made on where the e-book will be hosted. Currently it sits on a NZ site.

## REFERENCES

CCMAS EWG Forum  
on 14 September 2020



Summary  
of responses  
to CL 2020



New Zealand Comments  
on Uncertainty from  
Sampling



New Zealand Comments  
on Measurement Uncertainty  
and Measurement Error

CCMAS EWG Forum on 24 December 2020  
Webinar presentation and response



Responses  
to Chat Questions



Presentation  
to webinar

CX/MAS 21/4/9



Appendix I



Appendix II

CCMAS39

The 39<sup>th</sup> Session of the Committee on Methods of Analysis and Sampling (CCMAS39) agreed to start new work on the revision of the General Guidelines on Sampling (CXG 50-2004). This is set out in [REP18/MAS](#) Para 71, Appendices V (project document) and VI (prioritization areas of work). This new work was approved by CAC41 (REP18/CAC, Appendix VI).

