
GENERAL GUIDELINE

Proficiency Test Program

Organized by
National Referral Laboratory

**भाकृअनुप-राष्ट्रीय अंगूर अनुसंधान
केंद्र**
ICAR-National Research Centre for Grapes

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GENERAL GUIDELINE FOR PROFICIENCY TESTING PROGRAM

Introduction

The proficiency test (PT) organized by National Referral Laboratory are directed at laboratories belonging to APEDA recognized laboratories or other commercial testing laboratories in food testing sector who are planning for APEDA/FSSAI/EIC etc. recognition and involved in food testing.

The aim of the PT is to obtain information regarding the quality, accuracy and comparability of test results for pesticide residue analysis in food reported by the laboratories from the country for export and domestic purposes. Participating laboratories will be provided with an assessment of their analytical performance that they can use to demonstrate their analytical performance/ competency and compare themselves with other participating laboratories.

PT-Organisers and Committee:

The Organizer:

National Referral Laboratory
ICAR-National Research Centre for Grapes
Manjiri Farm, Pune, India- 412307

Organising Team:

Program director: Dr. R. G. Somkuwar, Director, ICAR-NRC for Grapes, Pune

Program coordinators:

Dr. Kaushik Banerjee, Principal Scientist, ICAR-NRC for Grapes, Pune
Dr. Ahammed Shabeer TP, Senior Scientist, ICAR-NRC for Grapes,
Pune

This team is responsible for all administrative and technical matters concerning the organisation of the PT, e.g. the PT-announcement, production of Test Item , the undertaking of homogeneity and stability tests, packing and shipment of the Test Item, handling and evaluation of the results and method information submitted by the participants and the drafting of the preliminary and final reports.

PT- Advisory Committee

To complement the internal expertise of the NRL, ICAR-NRCG, Pune, a group of external **Advisory Committee** has also been appointed.

The Advisory Committee role is to help the organisers to make decisions regarding the PT design: the selection of the commodity, the selection of pesticides to be included in the Target Pesticide List, the establishment of the Minimum Required Reporting Levels (MRRLs), the statistical treatment and evaluation of participants results (in anonymous form) etc.

Who can participate?

It is mandatory for all the APEDA recognised laboratories those are analysing grape and other fruits and vegetables samples for export under Residue Monitoring Plan of APEDA.

Further, we also welcome all other commercial food testing laboratories in the country who can analyse 70% of the target list of pesticides given in this PT and are planning for APEDA/FSSAI/EIC etc. recognition and involved in food testing.

Confidentiality and Communication:

The sole proprietor of this PT data is National Referral Laboratory, ICAR-NRC for Grapes, Pune and has access to all information.

The laboratories are given a unique identification code (laboratory code), initially only known to themselves and the organisers. In the final PT-Report, the names of participating laboratories will not be linked to their laboratory codes. Furthermore, the NRL, ICAR-NRCG reserves the right to share PT results and codes with regulatory body APEDA and with NABL, if requested.

Communication between participating laboratories during the test on any matters concerning a PT exercise is not permitted from the start of the PT exercise until the distribution of the preliminary report. Any such attempt by any participant laboratory may invite disciplinary action.

Announcement / Invitation Letter

Announcement/Invitation letter will be announced on NRCG web-portal and will be distributed it via E-mail to the mailing list of APEDA recognized laboratories available with NRL, ICAR-NRCG.

Target Pesticide List:

The list contains the analytes (pesticides and their metabolites and plant growth regulators, List enclosed)) in Residue Monitoring Plan of APEDA along with the Minimum Required Reporting Levels (MRRLs) valid for the PT.

All the participating labs must express their results as stated in the Target Pesticides List.

Methodologies to be used by the participants:

Participating laboratories are instructed to use the analytical procedure(s) that they would routinely employ in official control activities (monitoring etc.). Where an analytical method has not yet been established routinely this should be stated.

General procedures for reporting results:

Participating laboratories are responsible for reporting their own quantitative results to the organiser within the stipulated deadline. Any pesticide that was targeted by a participating laboratory should be reported as “analysed”. Each laboratory will be able to report only one result for each analyte detected in the Test Item. The concentrations of the pesticides detected should be expressed in ‘mg/kg’ unless indicated otherwise in the specific guideline.

Correction of results for recovery

According to the Method Validation and Quality Control Procedures for Pesticide Residues Analysis in Food and Feed (SANTE 12682/2019), it is common practice that pesticide analysis results are not corrected for recovery if the recovery rates range between 70 to 120 %. Correction of results for recovery is recommended if the average recovery is significantly different from 100 % (typically if outside the 70 – 120 % range). Approaches for recovery correction explicitly stated in the SANTE 12682/2019 document. Results may be corrected for recovery only in cases where this correction is applied in routine practice (including cases of MRL-violations). Laboratories are required to report whether their results were adjusted for recovery and, if a recovery factor was used, the recovery rate (in percentage) must also be reported. No recovery data are required where correction for recovery is automatic by adding amounts of analytes to the test portion for using the ‘standard addition’ approach, or isotopically-labelled internal standards (in both cases with spiking into the Test Item at the beginning of the extraction procedures) or procedural calibration. In these cases, the laboratories should report the actual approach that was followed.

Methodology information

All laboratories are requested to provide information on the analytical method(s) they have used in the test report format provided. A compilation of the methodology information submitted by all participants is presented in an Annex of the final report if required.

Publication of results

The NRL, ICAR-NRCG will publish a preliminary report, containing tentative assigned values

and Z-score values for all pesticides present within the deadline. At this stage the participant can resubmit in the prescribed format for any irregularity (only typo mistakes or error in data transferring) in the data reported by the lab.

The Final Report will be published after the Advisory Panel has discussed the results and will be communicated to individual laboratories.

Certificates of participation

Together with the Final PT-Report, the NRL will deliver a Certificate of Participation, if required, to each participating laboratory showing the z-scores achieved for each individual pesticide. The final report will be hosted on The ICAR-NRCG website (<https://nrcgrapes.icar.gov.in/>).

Feedback

At any time before, during or after the PT participants have the possibility to contact the organisers and make suggestions or indicate errors. After the distribution of the Final Report, participating laboratories will be given the opportunity to give their feedback to the organisers and make suggestions for future improvements.

Complaint/Appeal

The PT provider has a set procedure for complaint/ appeal from the PT participants in case any sort of irregularities observed by the participant during the period of the current PT. Under such situation, the participants can put their complaint or appeal to the PT provider in the prescribed format attached herewith.

Correction of errors

If any participant reported any error in any of the documents issued prior to the PT, the corrected documents will be communicated to participants through E-mails. Before starting the exercise, participants should make sure to download the latest version of these documents from the communicated E-mails.

If substantial errors are discovered in the Preliminary PT-Report, the organiser will distribute a new corrected version, where it will be stated that the previous version is no longer valid. Where substantial errors are discovered in the Final PT-Report, the PT-Panel will

decide whether a corrigendum will be issued and how this should look. Where errors are discovered in PT-Certificates the relevant laboratories will be sent new corrected ones. Where necessary the laboratories will be asked to return the old ones.

Follow-up activities

Laboratories are expected to undertake follow-up activities to trace back the sources of erroneous or strongly deviating results (typically those with $|z| > 2.0$) - including all false positives. Even results within $|z| \leq 2.0$ may have to be checked if there is indications of a significant positive or negative bias.

If required, outcome of any investigative activities for false positives, false negatives and for results with $|z| \geq 3.0$ or Z-scores between 2.0 and 3.0 will be reviewed in the Advisory Committee. Communication of the outcome of follow-up activities by each laboratory is optional but highly appreciated since the source of deviation could be identified and could be useful for other participating labs and in future PT programs.

Disclaimer

The NRL, ICAR-NRCG retains all the right to change any parts of the PT based on new scientific or technical information. Any changes will be communicated in due course of time.
