

What is proficiency testing?

Proficiency Testing is the evaluation of participant performance against pre-established criteria using interlaboratory comparisons (ISO/IEC 17043:2010).

Why proficiency testing?

The demand for independent proof of competence from the regulatory bodies and customers means that Proficiency Testing (PT) is relevant to all testing laboratories in all countries. Hence, it is a requirement of accreditation to ISO/IEC 17025 that the laboratories take part in a proficiency testing scheme if a suitable scheme exists. Thus, together with the use of validated methods, PT is an essential element of laboratory quality assurance.

Regular participation in a proficiency testing scheme provides independent verification of the analytical competence of a laboratory and shows a commitment to the maintenance and improvement of its performance. It demonstrates to the public, customers, accreditation bodies, regulators and management that analytical procedures are under control, and gives analysts confidence that the service which they render withstands scrutiny.

The cost of participation in a PT scheme gives good value for money compared with the consequences of producing inaccurate results which might put public health at risk, damages a company's reputation, loss of profit, or contravene national regulations.

How does a proficiency testing scheme operate?

Proficiency Testing (PT) schemes operate by providing participating laboratories with similar samples for concurrent testing. The laboratory analyses the samples, preferably as part of its normal routine, and reports the results to the PT provider. The laboratory is then provided with a report showing how closely their results agree with the accepted values, and where necessary, can then take appropriate actions to improve performance.

All participating laboratories are coded for confidential purposes. Participation is open to all interested laboratories in and outside EAC.

Why EAC proficiency testing scheme?

The primary aim of the EAC Proficiency Testing Scheme is to provide a quality assurance tool to laboratories in the region and to compare performance and take remedial action where necessary to facilitate improvement. Participation in this PT should therefore lead to a higher standard of performance for these types of measurements. This scheme focuses on improving laboratory-testing capabilities to produce accurate and reliable results that can be respected and trusted within and beyond the borders of the EAC region. This will help the region to become competitive in trade.

Why EAC proficiency testing scheme?

The test results are transformed into performance statistics to aid interpretation and allow comparison. These will involve statistical analysis of results, using robust statistical methods according to ISO 13528. The z-score for each result is tabulated and then summarize for each laboratory.

Contact Us

Tanzania

Ms. Catherine Bulemo
Mr. Emanuel Bakashaya
Food and Chemistry Laboratories
Tel: +255 22 2450206/2450298
Fax: +255 22 2450959
E-mail: catherine.bulemo@tbs.go.tz,
emanuel.bakashaya@tbs.go.tz
info@tbs.go.tz
Website: www.tbs.go.tz

Mr. Ramadhani Shija
& Ms. Mary Massawe
Materials Laboratories
Tel: +255 718 877729 &
+255 753 682770
Fax: +255 22 2450959
E-mail: ramadhan.shija@tbs.go.tz,
mary.massawe@tbs.go.tz,
info@tbs.go.tz
Website: www.tbs.go.tz

Kenya

Mr. Anthony Irungu,
Mr. Clarkson Agembo,
Bio-Chemistry Laboratories
Tel: +254 20 6948446/460
Fax: +254 20 6009660/503293,
E-mail: irungu@kebs.org,
agembo@kebs.org,
Website: www.kebs.org

Ms. Tabitha Orwa
& Mr. Enock Katam
Materials Laboratories
Tel: +254 20 6948442/352
Fax: +254 20 6009660/503293
E-mail: orwat@kebs.org,
katame@kebs.org,
Website: www.kebs.org

Uganda

Ms Eva Namutebi/ Mr. Amos Tumuheire UNBS
Chemistry Laboratory
Tel: +256 417 333 250/+256 417 333 251/+256 417 333 252
E-mail: eva.namutebi@unbs.go.ug
Website: www.unbs.go.ug

Rwanda

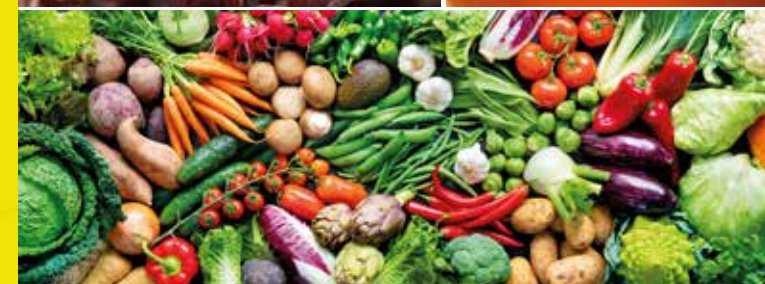
Mr. Mbabazi Alphonse/
Ms. Egidia Nkezabera
RSB National Quality Testing Laboratories
Tel: +250 788 777431/443238
Fax: +250 252 583305
E-mail: alphonse.mbabazi@rsb.gov.rw,
egidia.nkezabera@rsb.gov.rw,
Website: www.rsb.gov.rw

Burundi

Mr. Eric Ruracenyeka /
Felix Cimpaye
BBN - Chemistry laboratory
Tel: +257 22 22 1577/1815
E-mail: ruraeric@yahoo.fr,
ruracenyeka@bbn.bi,
fliccimpaye@yahoo.fr



EAST AFRICAN COMMUNITY



PROFICIENCY TESTING SCHEME

MATRICES, PARAMETERS & PT PROVIDERS



Flour
(wheat flour, maize flour) Moisture, Crude Protein, Crude fat, Crude fibre, Total ash, Acidity of extracted fat, Gluten, Vitamin A, Copper, Iron, Zinc, Maize flour: Aflatoxin
Kenya Bureau of Standards



Fertilizers
Moisture content, Total Nitrogen, Ammoniacal Nitrogen, Total Phosphorus Potassium as K₂O
Tanzania Bureau of Standards



Animal feeds
(Poultry feed, Dairy feed) Crude Protein, Fat, Total ash, Acid insoluble ash, Moisture, Crude fibre, Calcium, Phosphorous, Zinc
Kenya Bureau of Standards



Honey
Moisture, Hydroxymethyl furfural (HMF), Acidity, Water-insoluble matter, Diastase activity, Ash content, Reducing sugar, sucrose, fructose-glucose ratio, Lead, Zinc
Tanzania Bureau of Standards



Milk UHT
Milk fat, density at 20°C, protein, total solids, titratable acidity, freezing point depression, pH variation on 5 days incubation; calcium, lactose, pH, aflatoxin M₁
Kenya Bureau of Standards



Fruit juice
pH, Brix (Total soluble solids), Acidity, Ascorbic acids, Copper, Alcohol content, Arsenic, Lead
Tanzania Bureau of Standards



Edible Salt
Chloride content expressed as NaCl, Calcium, Magnesium, Sulphate, Iodate content (expressed as Iodine), moisture content, Matter-insoluble-in-water
Tanzania Bureau of Standards



Edible Oil
Iodine Value, Refractive Index, Relative Density, Moisture and volatiles content, Nickel content, Copper content
Uganda National Bureau of Standards



Alcoholic beverages (Gin)
Alcohol content, Volatile acids as acetic acid, Esters as ethyl acetate, Aldehydes as acetaldehyde, Methanol
Uganda National Bureau of Standards



Skim milk powder
(Microbiology) Total Viable Count, Coliforms, Escherichia coli, Coagulase positive Staphylococci, Listeria species, Listeria monocytogenes, Salmonella species
Kenya Bureau of Standards



Sugar
Polarization, Conductivity ash, Moisture content, Colour, Sulphur dioxide, Water-insoluble matter
Rwanda Standards Board



Meat and Fish chunks (Microbiology)
Total Viable Count, Coliforms, Escherichia coli, Coagulase positive Staphylococci, Listeria species, Listeria monocytogenes, Salmonella species
Kenya Bureau of Standards



Laundry soap
Free caustic alkali, as NaOH, Total free alkali, as NaOH, Moisture and volatile content, 105 °C, Ethanol insoluble matter, Matter insoluble in water, Chloride content as NaCl
Rwanda Standards Board



Black Tea (Microbiology)
Total Viable Count, Coliforms, Escherichia coli, Coagulase positive Staphylococci, Yeast, Molds, Yeasts and Molds, Salmonella
Kenya Bureau of Standards



Skin Cosmetic Lotion
Hydroquinone, Thermal stability, pH, Total fatty substance content, Lead, Arsenic, Mercury
Rwanda Standards Board



Solar panel
Maximum power output
Tanzania Bureau of Standards



Electric cables
Conductor resistance, Insulation thickness
Tanzania Bureau of Standards



Textile
Breaking strength and elongation at break, Mass per unit area, Fibre composition and proportion, Construction-Threads per unit length
Kenya Bureau of Standards



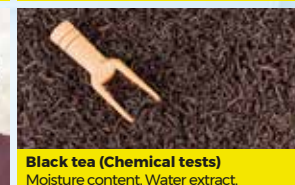
Paint
Non-volatile matter (solid content), pH, Viscosity, fineness of grind
Kenya Bureau of Standards



Foam Mattress
Compression set, Tear resistance, Tensile strength, Ultimate elongation (elongation at break)
Kenya Bureau of Standards



Leather
Tensile strength, Elongation, Tear strength, thickness
Kenya Bureau of Standards



Black tea (Chemical tests)
Moisture content, Water extract, Total ash, Water-insoluble ash, Alkalinity of water-soluble ash, Acid insoluble ash, Crude fibre, Polyphenols, Catechins, Anthocyanins, Copper, Iron, Lead, Cadmium, Arsenic
Kenya Bureau of Standards



Energy Drink
pH, Brix (Total soluble solids), caffeine
Tanzania Bureau of Standards



Instant Coffee
Moisture content, Total ash, Caffeine content, Lead, Cadmium, Arsenic
Uganda National Bureau of Standards



Green Coffee
Moisture content, Acid insoluble ash, Ochratoxin A, Lead, Cadmium, Arsenic
Uganda National Bureau of Standards

Reporting and assessment

The test results are transformed into performance statistics to aid interpretation and allow comparison. These will involve statistical analysis of results, using robust statistical methods according to ISO 13528. The z-score for each result is tabulated and then summarize for each laboratory.