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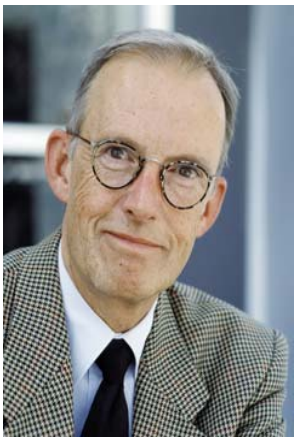
NMKL
c/o National Veterinary Institute
PB 750 Centre,
N-0106 Oslo,
Norway.

NMKL Newsletter
Nordic Committee on Food Analysis

"Decisions are never better than the basis on which they are made."



Chairman Ole Bjørn Jensen

Decisions are never better than the basis on which they are made. If inappropriate methods of analysis are used, the decisions, the studies etc. based on these analytical results, cannot be relied upon, and at worst may be false. Therefore, it is of great importance for authorities and food companies, that useful methods that are fit for purpose are elaborated. And also, that these methods are validated by a number of laboratories in accordance with internationally accepted rules.

It is our objective that the activities of NMKL will help to ensure quality and traceability throughout the entire process, from sampling and analysis to reporting of results, from fjord/ farm to table. Thus, by ensuring the quality of the analytical result, NMKL assists authorities and companies in ensuring the quality and safety of foodstuffs, and also in ensuring that mappings/ monitoring projects are correct.

As Nordic food authorities no longer carry out analyses themselves, they have an increasing need for NMKL's competence in order to draw the right conclusions and decisions, when these are based on analytical results. NMKL can provide this expertise and competence, and it is important to make the authorities aware of this, so that they may take advantage of the available resources. Similarly, NMKL should also make authorities and manufactures aware of the fact that NMKL's network and expertise can be used to give guidance and advice within the field of NMKL.

This was the opening statement of NMKL's chairman Ole Bjørn Jensen at NMKL's 62nd Annual Meeting. He continued by informing about NMKL's activities and international cooperation before thanking those involved in NMKL and their employers for putting up valuable skills, expertise and resources for disposal.

Contents

Please notify us of any changes in e-mail or postal adresses.

The NMKL 62nd Annual Meeting, Vadstena, Sweden

The Swedish National Committee had invited the members of NMKL to hold their 62nd Annual Meeting, 23 – 26 August 2008, at Vadstena Klosterhotel (photo to the right) in Vadstena, Sweden.

About 60 members from the national committees of Denmark, Finland, Iceland, Norway and Sweden participated. At the Annual Meeting, the participants received information from NMKL's officials and from invited partners.

Further, all projects on NMKL's working programme were discussed. The work load was considerable.

The discussions were lively in the professionally strong, but relatively informal, sub committees on microbiology, chemistry and sensory analysis, respectively.

The annual meeting is indeed an important meeting forum for the Nordic experts.

(Cont . p.2)

www.nmkl.org

Sub Committee 1: The Executive Committee

The chairpersons of the National Committees, from the left: Franklin Georgsson, Iceland, Ulla Edberg, Sweden, Ole Bjørn Jensen, Denmark, Tone Normann Asp, Norway, Harriet Wallin, Finland.

The executive committee consists of the chairpersons and secretaries of the NMKL national committees and the NMKL secretary general. The committee is chaired by the Chairperson of NMKL, Ole Bjørn Jensen, Scanpharm, Denmark.

NMKL receives financial support for the maintenance of the NMKL secretariat from the Food Department of EK-FJLS in the Nordic Council of Ministers. The National Veterinary Institute in Oslo, where the main office of NMKL is located, also makes resources available for NMKL.

Most of the work in NMKL is carried out on a voluntary basis, which means that it is the employers of the NMKL members, the referees and the project members who support (also financially) most of the work for the Nordic community.

The Annual Meeting established the action plan for 2008/2009 given below.

effective methods

guidelines

courses

workshops

advisory service

cooperation

network

From the right: Sven Qvist, Niels Skovgaard, Denmark.

Summary of NMKL's action plan for 2008/2009

NMKL wants to:

- emphasize NMKLs activities and objectives, actively influence and participate in the food cooperation on all levels of the Nordic Council of Ministers.
- take into account the Nordic food authorities' priorities for environmental hazards and health promotion work, but also place emphasis on food quality and authenticity.
- take into account the food industry, and the food laboratories need for chemical, microbiological and sensory methods and guidelines within quality assurance.
- actively disseminate knowledge on current topics through courses / seminars / workshops.
- continue to observe and participate actively in the CEN, EU forums, AOAC INTERNATIONAL, IDF, ISO and Codex work, and actively offer NMKL publications to these forums. Through increased cooperation with other organisations, duplication of work can be avoided, e.g. through collaborative validation.
- maintain the NordVal activities.
- continue to ensure that NMKL methods are validated in collaborative studies.
- follow the development of new analytical techniques, and stimulate and increasingly support research for use of these in NMKL methods, to meet the needs and requirements for more efficient and environmentally friendly analytical methods, which also comply with requirements for safe and healthy working environment.
- maintain the database of Nordic expert laboratories, and be available for a Nordic cooperation between the national reference laboratories.
- maintain information on proficiency testing schemes on the NMKL homepage.
- encourage Nordic accreditation bodies to cooperate and harmonise accreditation requirements for testing laboratories.
- be an independent third party or refer to experts, for review of methods and results in line with the members' expertise, for instance in disputes between parties (laboratories / government / industry).
- introduce a document sharing system to streamline the administrative work within NMKL.

Sub Committee 2: Microbiology — Working programme

The microbiological committee is chaired by Flemming Hansen, Danish Meat, Denmark. Katharina E.P. Olsen, State Serum Institute, Denmark, is the secretary of the committee.

METHODS:
Method drafts expected on:

- *Clostridium botulinum* & botulinum toxin.
- Sampling and pre-treatment of foods and animal feedstuff for quantitative microbiological examination.
- *Bacillus cereus.* Determination in foods.
- *Clostridium perfringens.* Determination in foods.
- Pathogenic *Yersinia enterocolitica*. PCR methods for detection in foods.
- *Brochothrix thermosphacta*. Determination in meat and meat products.
- Bacterial examinations in fresh and frozen seafood.
- *Enterococcus*. Determination in foods and feeds.

Method approved for publishing:

- Coagulase positive staphylococcus / *Staphylococcus aureus.* Enumeration in foods.

PROCEDURES / GUIDELINES:

- Quality assurance of PCR analyses.

From the left: Flemming Hansen, Danish Meat, Katharina E.P. Olsen, State Serum Institute.

Sub Committee 3: Chemistry — Working programme

The chemical committee is chaired by Kåre Julshamn, NIFES - National Institute of Nutrition and Seafood Research, Norway. Håkan Johnsson, National Food Administration, Sweden, is the secretary of the committee.

METHODS:
Method drafts expected:

- Ochratoxin A. Determination by HPLC in grain.
- Tin. Determination in foods.
- Methylene mercury. Determination by isotope dilution-GC-ICPMS in foods.
- Histamine. HPLC determination in fish.
- Plant sterols and stanols: GC determination of phytosterol-enriched foods.

Methods for collaborative study:

- PAH. Determination in foods.
- Vitamin K_1 and K_2. HPLC determination in foods.
- Nitrate and / or nitrite. Determination in food and water after reduction with zinc and Griess reaction.

Methods approved for publishing:

- Glycoalkaloids. HPLC determination in potatoes.

PROCEDURES / GUIDELINES:

- Procedure for calibration of NIR and IR for analysis of main components in foods.
- Guide for quality assurance for chemical food laboratories.
- Validation of chemical analytical methods.
- Recovery. Estimation and expression.
- Traceability in chemical analysis.
- CCMAS project: Guide on Method Criteria for Codex Alimentarius Commission Procedural Manual.

▲ From the left: Håkan Johnsson, National Food Administration, Kåre Julshamn, NIFES.

▼ From the Sub committee 3 meeting.

Sub Committee 4: Sensory analysis - Working programme

Committee 4 at the NMKL annual meeting

The Committee for sensory analysis was established in 1994, and Halina Agerhem, the University of Kristianstad, Sweden, has been the chairperson. She has made a major contribution and been instrumental in establishing the committee.

Committee 4 has published several procedures, collaboratively validated one method and arranged a number of courses. Unfortunately, Halina Agerhem was unable to attend this year's NMKL meeting.

The committee is now elaborating, among other things, a procedure for scoring and reporting sensory data, including evaluating uncertainty. Further, the method for Quality Control Test for Drinking Water (NMKL 183) is up for revision.

The committee chairs are elected for 4 year terms. This year, Halina Agerhem has resigned her position as chairperson. Halina Agerhem was thanked for her extensive effort as chair person.

Gunnar Forsgren (photo), Iggesund Paper Board, Sweden, was elected as the new chairman of the committee.

New NMKL Method No. 159, 2nd Ed. 2008: Glycoalkaloids. Liquid chromatographic determination in potatoes.

By Carina Branzell, National Food Administration, Sweden

Carina Branzell, National Food Administration, Sweden

The revision includes a new homogenisation procedure.

New procedure: Acetic acid and sodium hydrogen sulphite, is compared against the old procedure: liquid nitrogen.

Glykoalkaloids are toxic and bad tasting chemicals found naturally in potatoes to protect against pest attack. We suspect that the presence of these substances act as natural pesticides, and is part of the potatoes' internal defence against various pests.

In addition to the genetic characteristics of various potato types, the growing conditions might also have a significant impact on the content of glykoalkaloids. For a particular potato type, the levels can vary greatly between different locations and years, however, we have little knowledge of the individual influencing factors. The glykoalkaloids in potatoes are primarily α-solanine and α-chakonine. They have similar chemical structures and are both bitter and toxic. NMKL Method No. 159 describes the analysis of these two substances.

The method is developed for the quantitative determination of glykoalkaloids; α-solanine and α-chakonine and includes analysis of fresh potato tissues.

The original method was evaluated through a collaborative validation. Twelve laboratories participated and analysed six different samples in the concentration range of 12-218 mg / kg of α-solanine and 17-261 mg / kg of α-chakonine. Acceptable results were obtained from 10 laboratories with relative standard deviations between 8 and 13%. This version of NMKL Method No. 159 was published in 1997, and approved the same year by AOAC International, Official Method as AOAC 997.13.

The revision of the method involved the preparation of the sample. The original method described homogenisation with liquid nitrogen, an approach that requires special equipment and great caution. In the revised version, an alternative homogenisation procedure is described. A method based on acetic acid and sodium hydrogen sulphite.

The two homogenisation procedures have undergone a minor internal validation in which 12 replicates from each homogenate were analysed. No statistical difference between the two homogenisation procedures could be noted. Furthermore, a homogeneity test and a stability test of the acetic acid / sodium hydrogen sulphite homogenate were carried out. The results show that the samples are homogeneous, and that they are stable when stored in a freezer at -20 °C for 4 months.

The conducted tests show that the homogenisation of potato samples with acetic acid and sodium hydrogen sulphite, is a valid alternative to the previous homogenisation with liquid nitrogen.

Measurement of uncertainty in quantitative microbiological examination of foods

NMKL Procedure No. 8, Version 4, September 2008

This 4th version of the procedure replaces version 3, released in May 2008, which was only available a few months.

The procedure describes how to estimate the measurement uncertainty of an analytical method at a laboratory by using internal reproducibility.

This means that the standard deviation from the results obtained on repeated analyses performed at different times, by different people and on different batches of reagents at the same laboratory, is used to estimate the measurement uncertainty.

The calculations are carried out on $\log_{10}$-transformed results.

The results could be tabulated as shown below:

Analysts; Batch; Day	A;1;1	B;2;2	C;3;3
Replicate	$\log_{10}$	$\log_{10}$	$\log_{10}$
1	x_{a11-1}	x_{b22-1}	x_{c33-1}
2	x_{a11-2}	x_{b22-2}	x_{c33-2}
3	x_{a11-3}	x_{b22-3}	x_{c33-3}
4	x_{a11-4}	x_{b22-4}	x_{c33-4}
. . .	. .	. .	. .
10	x_{a11-10}	x_{b22-10}	x_{c33-10}

Internal reproducibility

Precision of repeated analysis

- **at the same laboratory**
- **at different times**
- **by different persons**
- **on different batches of reagents**

To see how well the analytical results can be repeated, the precision within each series (A, B and C) is calculated. This is done by calculating the mean and the standard deviation for each combination of analyst / batch / day (A, B and C). In this example, three mean values and three standard deviations are obtained. In order to get a measure of the method's repeatability, the standard deviation of the series are combined.

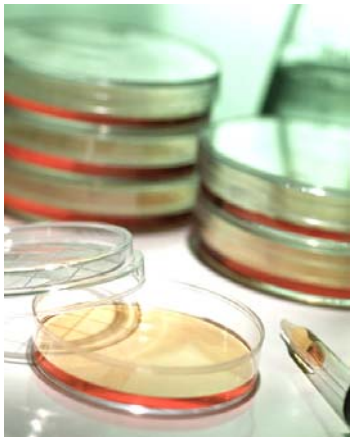
Version 3 of Procedure No. 8 concluded at this step, and expressed the standard uncertainty as the combined precision. Thus, the variation between series was not taken into account, i.e. whether there is a big difference in the results between series A, B and C. For considering the variance between the series, the standard deviation (the spread of the results) of the mean of A,B and C is calculated.

The uncertainty, u, is the spread of the results within the series and between the series. This is calculated by combining the standard deviations of the precision of the series (A, B and C) and the standard deviation between the series.

In order to make the measurement uncertainty correspond to an interval containing a large fraction of the expected variation in the results, the standard uncertainty is multiplied with a coverage factor. The coverage factor is usually 2. A coverage factor of 2 corresponds to a confidence level of approx. 95%. It is recommended that a coverage factor of 2 is used in the following manner: $U = 2 \cdot u$

Complicated?
Not to worry, there are examples and further explanations in the Procedure. No advanced tools are needed for calculating measurement uncertainty. An Excel sheet is suitable, and the only calculations needed are the mean and the standard deviation. These formulas are available in the Excel sheet.

NMKL welcomes any comments on the procedure.



NordVal certificates are issued to HyServe

NordVal has issued certificates to HyServe GmbH & Co. KG, Uffing, Tyskland for the following products:

- Compact Dry TC Method for the enumeration of total viable organisms
- Compact Dry ETB Method for the enumeration of *Enterobacteriaceae*
- Compact Dry CF Method for the enumeration of total coliforms
- Compact Dry EC Method for the enumeration of *Escherichia coli*
- Compact Dry EC Method for the enumeration of total coliforms

The products are produced by Nissui Pharmaceutical, Japan.

For a NordVal certification it is required that the method is extensively validated by an expert laboratory (in a comparison study), and then validated in a collaborative study, organised by the expert laboratory. The method is compared with a reference method.

CCFRA Technology Limited, Chipping Campden, England was the expert laboratory in the testing of the Compact Dry methods. The validation was carried out in accordance with ISO 16140.

Comparison of the Dry Compact methods against reference methods

The Compact Dry methods (alternative methods) were compared with ISO methods (reference methods).

The expert laboratory examined the selectivity of the method. The selectivity is a measure of how well the method manages to detect the target organisms from a wide range of strains (the inclusivity), and the lack of interference from a relevant range of non-target microorganisms (the exclusivity).

For quantitative analysis, the inclusivity is determined by selecting at least 30 pure cultures of target microorganisms relevant to the method and the food matrices.

For quantitative analysis, the exclusivity is determined by selecting at least 20 pure cultures of non-target microorganisms chosen from both the strains known to cause interference with the target microorganism, and from strains naturally present in the food matrices.

From each test strain an appropriate growth medium is cultured overnight before the alternative medium and the reference medium are inoculated.

For the Compact Dry methods, the selectivity was satisfactory. For Compact Dry TC for the enumeration of total viable organisms, the selectivity is of no relevance.

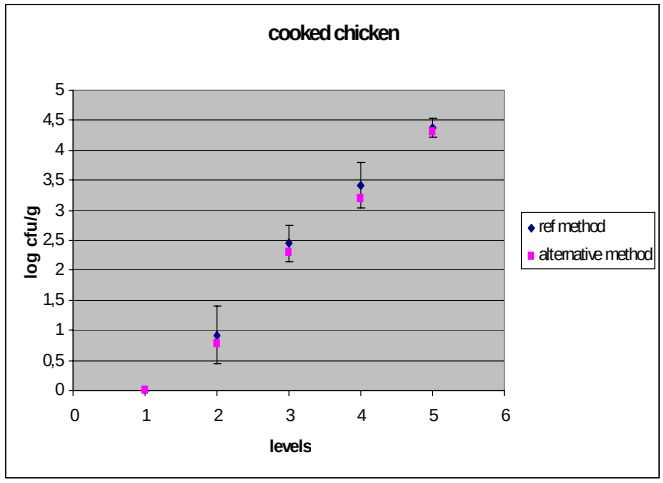
The compliance between the alternative and the reference method and their precisions is examined by the expert laboratory by analysing minimum five replicates of five different levels (low, medium and high) of the target microorganisms in relevant food samples using both methods. For horizontal methods, five food categories are required.

For the Compact Dry methods, the comparison studies were carried out by CCFRA Technology Limited in 2007 on cooked chicken, frozen fish, lettuce, milk powder and raw meat. Five levels of contamination were used for each food matrix. For all foods, except the milk powder, naturally contaminated samples were tested. Five replicates were analysed at each level.

The mean and the standard deviation of the results obtained by the reference method and the alternative method, respectively, were calculated. The obtained mean values were plotted in a graph as shown below. In addition to the mean, the confidence level (± 2 times the standard deviation) of the reference method was plotted.

Thus, it is easy to illustrate whether the alternative method gives the same results as the reference method:

When the results obtained by the alternative method fall within the confidence level, there is no significant difference between the methods. That is, if the precision (the standard deviation) is satisfactory for both methods. According to NMKL Procedure No. 8, the precision (standard deviation) should not be below 0,4 log cfu/g.



Collaborative studies of the Compact Dry methods

The collaborative studies of the five Compact Dry methods involved more than 10 laboratories. Each Compact Dry method was compared with a current ISO method.

The laboratories analysed duplicates of milk samples on four levels including blind samples with the respective methods.

The mean values and standard deviations were calculated.

Precision, both repeatability and reproducibility, was satisfactory for both the Compact Dry methods and the reference methods.

All the results of the Compact Dry methods were included in the confidence level of the reference method. Thus, the collaborative study also showed that we will obtain comparable results with Compact Dry methods and the respective ISO methods.

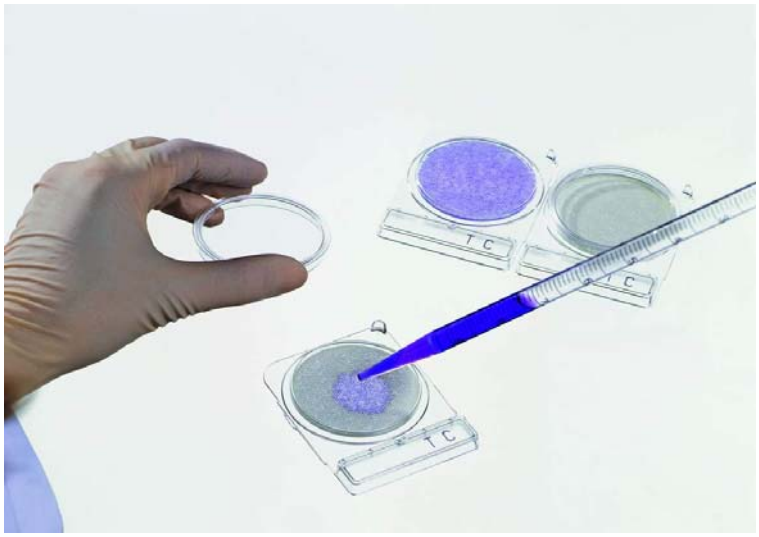
Compact Dry TC Method for the Enumeration of Total Viable Organisms in foods.
NordVal Certificate No. 033

Compact Dry TC is a ready-to-use, dry, chromogenic plate for the enumeration of total viable organisms count. An aliquot of 1 ml of an appropriate dilution is plated onto a Compact Dry TC plate. The incubation conditions tested in the study were 30 ± 1°C for 48 ± 3h and 72 ± 3h, respectively.

Compact Dry TC was compared with ISO 4833:2003: "Microbiology of foods and animal feeding stuffs. Horizontal method for the enumeration of microorganisms. Colony count techniques at 30°C."

In the comparison study, the lowest validated levels with satisfactory results were:

- cooked chicken: 2,6 log cfu/g
- frozen fish: 3,0 log cfu/g
- lettuce: 3,4 log cfu/g
- milk powder: 2,1 log cfu/g
- raw meat: 3,4 log cfu/g.



Compact Dry ETB Method for the Enumeration of *Enterobacteriaceae* in foods.
NordVal Certificate No. 034

Compact Dry ETB is a ready-to-use, selective plate containing glucose for the enumeration of *Enterobacteriaceae*. An aliquot of 1 ml of an appropriate dilution is plated onto a Compact Dry ETB plate. The plate is incubated at 37 ± 1°C and colonies (red /purple) are counted after 24 ± 2h.

Compact Dry ETB was compared with: "ISO 21528-2:2004: "Microbiology of foods and animal feeding stuffs. Horizontal method for the detection and enumeration of *Enterobacteriaceae* - part 2: Colony Count Method."

In the comparison study, the lowest validated levels with satisfactory results were:

- cooked chicken: 0,8 log cfu/g
- frozen fish: 2,0 log cfu/g
- lettuce: 2,6 log cfu/g
- milk powder: 2,0 log cfu/g
- raw meat: 3,4 log cfu/g

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For further info please visit: www.hyserve.com

info@hyserve.com

Compact Dry CF Method for the Enumeration of Total Coliforms in foods.

NordVal Certificate No 035.

Compact Dry CF is a ready-to-use, dry, chromogenic plate for the enumeration of coliforms. An aliquot of 1ml of an appropriate dilution is plated onto a Compact Dry CF plate. The plate is inverted and incubated at 37 ± 1°C and colonies (blue/blue green) were counted after 24 ± 2h.

Compact Dry CF Method was compared with ISO 4832:2006: "Microbiology of foods and animal feeding stuffs. Horizontal method for the enumeration of coliforms -- Colony-count technique."

In the comparison study, the lowest validated levels with satisfactory results were:

- cooked chicken: 0,9 log cfu/g
- frozen fish: 1,2 log cfu/g
- lettuce: 2,0 log cfu/g
- milk powder: 2,0 log cfu/g
- raw meat: 3,4 log cfu/g

As for the method selectivity, the Compact Dry CF is somewhat more selective than ISO 4832. For exclusivity 3 strains interfere on Compact Dry CF while 9 strains interfere in the ISO 4832, giving false positives.

In the collaborative study there were no significant differences between the reference method and Compact Dry CF method.

Compact Dry EC can be used for the enumeration of *E. coli* or for the enumeration of coliforms in foods.

Compact Dry EC Method for the Enumeration of *Escherichia coli* in foods.

NordVal Certificate No. 036

Compact Dry EC is a ready-to-use, dry chromogenic plate for enumeration of *E.coli*. An aliquot of 1 ml of an appropriate dilution is plated onto Compact Dry EC plate. The incubation conditions tested in the study were 37 ± 1°C for 24 ± 2h.

The Compact Dry EC method was compared with ISO 16649-2:2001: "Horizontal method for the enumeration of beta-glucuronidase-positive *Escherichia coli* -- Part 2: Colony-count technique at 44 degrees C using 5-bromo-4-chloro-3-indolyl beta-D-glucuronide."

In the comparison study, the lowest validated levels with satisfactory results were:

- cooked chicken: 0,8 log cfu/g
- frozen fish: 1,9 log cfu/g
- lettuce: 1,0 log cfu/g
- milk powder: 2,8 log cfu/g

in the collab study: 2,5 log cfu/g

- raw meat: 3,4 log cfu/g

Compact Dry EC Method for the Enumeration of Coliforms in foods.

NordVal Certificate No. 037

Compact Dry EC can be used for the enumeration of *E. coli* or for the enumeration total coliform bacteria in foods. For coliforms, red colonies are counted in addition to the blue ones. The incubation temperature and incubation time are the same.

The Dry Compact EC method for the enumeration of coliforms is compared with the ISO 4832:2006.

In the comparison study the lowest validated levels with satisfactory results were:

- cooked chicken: 0,9 log cfu/g
- frozen fish: 1,0 log cfu/g
- lettuce: 2,0 log cfu/g
- milk powder: 2,7 log cfu/g

in the collab. study: 2,6 log cfu/g

- raw meat: 3,5 log cfu/g

NordVal - a committee of NMKL

The NMKL Annual meeting 2007, decided that NordVal should be a committee under NMKL.

The scope of NordVal is to

- review commercial test kits, their performance and suitability for assessing methods' compliance with the manufacturers' claims, and whether they are equivalent to their reference methods.
- review other alternative methods which the industry/laboratories are in need of.
- issue certificates for commercial test kits and other alternative methods, which fulfil the requirements given in the NordVal protocol.

The members of NordVal's Steering Group are appointed by NMKL's National Committees for 4 year terms, with one representative for each subject area from each country.

The members of NordVal's Steering Group shall be independent and cannot have special interests, in the production/distribution of test kits, special reagents or instruments, that may influence their independence. The members must have the required competence, and the necessary time at their disposal.

The Steering Group evaluates applications for validation and the proposals and assessments of the technical committees, and also makes decisions regarding the issuance of certificates, as well as technical procedures/ guidelines.

The NordVal Steering Group appoints experts in the technical committees. The requirement of independence in relation to the production and distribution of the methods that are evaluated, also applies to these experts.

Experts involved in NordVal are independent and have no special interest in the production/ distribution of test kits, special reagents or instruments, that may influence their independence.

For NordVal certified methods, visit www.nmkl.org

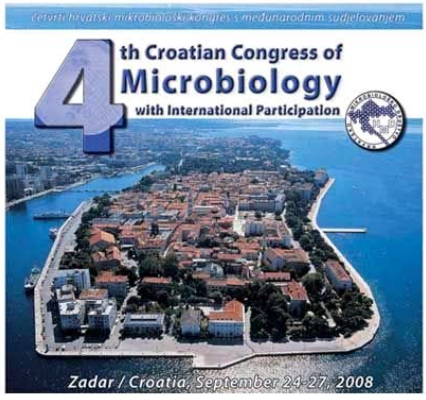
NMKL representation in Croatia
by Semir Loncarevic

The Croatian Microbiology Society arranged the Fourth Croatian Congress of Microbiology with International Participation in Zadar, 24-27 September, 2008. This four-day intensive meeting covered all important aspects of microbiology, presented by keynote and section lectures and through poster discussions.

Food associated microorganisms and safety microbiology was presented in its own section. Semir Loncarevic (photo), Senior Researcher at the Section for Food Microbiology and GMO, at the National Veterinary Institute in Oslo, Norway, was an invited speaker at the Congress. He had two presentations: "*Listeria monocytogenes*. Methods for detection and enumeration in foods" and "Elaboration of official methods and guidelines within NMKL. "

Both lectures were very well attended and several questions were raised about the *Listeria* method and NMKL methods in general.

This was very good opportunity to present NMKL and share knowledge and experiences about the most used Nordic methods within food microbiology.



Internasjonal Workshop: Method Performance and the Criteria Approach: Truth and consequences?

Background for the workshop:

Following on from the successful Workshop on Measurement Uncertainty immediately prior to the last Session of CCMAS, with about 80 participants from 29 countries, the IAM/MoniQa organisers will arrange a workshop on method performance and the criteria approach.

This Workshop will discuss:

- the adoption procedures for methods of analysis within the Codex system
- the method performance characteristics required for methods of analysis within the Codex system
- the rationale for the adoption of the criteria approach within the Codex system and information on how it is to be applied
- number of current issues facing method developers, SDO's and accreditation agencies.
- the procedures that users of methods should follow to ensure that they are being applied and used correctly – the method verification process.

Organisers of the workshop are the international organisations AOCS, ICC, BIPM, IUPAC, NMKL and the EU project MoniQA (Monitoring and Quality Assurance in the Food Supply Chain).

Method characteristics and the use of method criteria are of current interest within Codex Alimentarius. Codex Alimentarius has approved that method criteria can be used in commodity standards instead of endorsing specific method(s). This gives the countries and laboratories greater freedom of choice in the selection methods. The method should preferably be validated collaboratively, and then meet certain criteria.

The Codex Alimentarius Commission was established in 1963 by FAO and WHO to develop food standards, guidelines and related texts such as codes of practice under the Joint FAO/WHO Food Standards Programme.

The main purposes of this Programme are to protect the health of the consumers and ensure fair trade practices in the food trade, and also to promote coordination of all food standards work undertaken by international governmental and non-governmental organisations.

Preliminary Program

Sunday 8 March 2009, Hotel Ramada at Balatonalmádi, Balaton, Hungary

Introduction - Codex requirements for methods of analysis

- Role of IAM members, IAM and the MoniQA project
- Technical problems associated with prescribing methods of analysis

Method performance studies

- The importance of method performance studies - who, why, how
- Horwitz, Thompson and IUPAC and ISO protocols
- Qualitative analysis

The Criteria Approach

- Introduction to the Criteria Approach - from method performance characteristics to method criteria
- How to identify relevant analytical methods in accordance with the criteria

Applying methods of analysis

- Proprietary methods – issues in validation and traceability
- Extension of scopes of methods and effects on accreditation
- Method verification

The Workshop is open to delegates to CCMAS (no charge), IAM and MoniQA members (no charge) and other applicants (Euro 150). Initial participation is restricted to 80 participants according to the priority order above.
For further information and registration, please visit:

http://www.moniqa.org/balaton2009

Organisers of the workshop, from left:
Roger Wood (IAM)
Roland Poms (ICC/MoniQA),
Hilde Skaar Norli (NMKL),
Richard Cantrill (AOCS/IAM),
Robert Weilgosz (BIPM),
and
Sandor Tomoskozi (BUTE)
(not in the photo)

National Veterinary Institute is arraning a course in microbiological methods

Time and place:
The National Veterinary Institute, Oslo, 7 - 8 May 2009.

Target audience:
The course will be targeting employees in the Food Safety Authority, food safety and quality managers in the food industry and others who buy microbiological analysis services related to food, as well as people who work with food microbiology.

Language: Norwegian

Contents:
The course will deal with methodology, with focus on the detection of faecal indicator bacteria and pathogenic bacteria with different methodologies, as well as the importance of the different methods. We will look at the differences between the so-called traditional methods and rapid methods / test kits vs molecular methods. We will also discuss validation and what you should think about when buying analytical services.

Preliminary program

Why is there a need for training in microbiological analysis methodology?
- Analytical services are outsourced, enterprises no longer have in-house expertise
- The use of alternative methods / rapid methods / test kits - what do the results obtained with these mean

What is the scope of the analysis?
- Screening
- Detection of pathogenic bacteria
- Outbreak clear-up
- Quality Control
- Tracking
- Risk assessment

Main types of methodology?
- Traditional methods
- Immunological-based methods
- Molecular methods
- Detection of toxins
- On-line methods
- Future methods
- Confirmation of presumptive positive results

Choice of method
- The time / work needed
- Sensitivity / specificity / false positives / false negatives

Validation
- What is validation?
- Why should methods be validated?
- What does this mean to me as a buyer of analytical services?

Accreditation
- What is accreditation?
- What does it mean that the laboratory uses accredited methods, or that the laboratory is accredited?
- Is accreditation necessary?

What should I ask for as a buyer of analytical services?

Sampling

Measurement Uncertainty

Fall Mines / special issues to consider in the analysis of:
- Faecal indicator bacteria
- The various pathogens (*Salmonella, Campylobacter, VTEC, Listeria monocytogenes, Yersinia enterocolitica, Shigella, Vibrio, Staphylococcus aureus)*

Price: NOK 2500 for 2 days, lunches and course material included
Registration to:
nmkl@vetinst.no
Deadline: 15 April 2009

Potential

NMKL course in 2009:

- how to evaluate results from certified reference material
- measurement uncertainty in microbiological examinations

Suggestion for courses are welcomed

Please note:

Subscriptions for which payment is not registered for 2008, will be deleted.

If you wish to keep your NMKL subscription and do not receive the new method, please contact NMKL.

Available NMKL Procedures (Guides)

No. 23 2008	**Guide on quality assurance in microbiological laboratories.** Available in Swedish. English version under elaboration.
No. 22 2008	**Considerations regarding evaluation of immunochemical test kits for food analysis.** Available in Swedish. English version in press.
No. 8, 4th Ed. 2008	**Measurement uncertainty in quantitative microbiological examination of foods.** Available in Norwegian and English.
No. 21 2008	**Guide for sensory analysis of fish and shellfish.** Available in English.
No. 20 2007	**Evaluation of results from qualitative methods.** Available in Norwegian and English.
No. 19 2007	**Guideline for sensorial analysis of food containers/packages.** Available in Swedish and English.
No. 9, 2nd Ed. 2007	**Evaluation of method bias using certified reference materials.** Available in Swedish and English.
No. 18 2006	**The use of reference materials, reference strains and control charts in a food microbiological laboratory.** Available in English and Norwegian.
No. 17 2006	**Guidelines for requirement specifications for food analyses.** Available in English and Norwegian.
No. 16 2005	**Sensory quality control.** (Update of references in 2007.) Available in Norwegian and English.
No. 4, 2nd Ed. 2005	**Validation of chemical analytical methods.** Available in English and Norwegian (Spanish edition from 1996 as PDF-file).
No. 1, 2nd Ed. 2005	**Calibration and performance checking of laboratory balances.** Available in Swedish and English.
No. 15 2004	**Temperature control in microbiological laboratories.** Available in Swedish and English.
No. 14 2004	**SENSVAL: Guidelines for internal control in sensory analysis laboratories.** Available in Norwegian and English.
No. 5, 2nd Ed. 2003	**Estimation and expression of measurement uncertainty in chemical analysis.** Available in Swedish, English and Spanish (Spanish only as PDF-file).
No. 13 2003	**Volumetric control.** Available in Danish and English.
No. 12 2002	**Guide on sampling for analysis of foods.** Available in Norwegian, English, Finnish and Polish.
No. 11 2002	**Procedure for sensory analysis of drinking water.** Available in Norwegian and English.
No. 10 2001	**Control of Microbiological Media.** Available in Norwegian, English and Finnish.
No. 7 1998	**Checking of UV/VIS spectrophotometers.** Available in English and Danish.
No. 6 1998	**General guidelines in quality assurance for laboratories performing sensory analysis.** Available in Danish and Finnish.
No. 3 1996	**Control charts and control materials in internal quality control in food chemical laboratories**. Available in English and Swedish.
No. 2 1995	**Performance check and in-house calibration of thermometers.** Available in English and Swedish.

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