

Quality control in aerobiological networks

Sterowanie jakością w sieciach aerobiologicznych

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Abstract

Nowadays the information generated by the aerobiological networks should be adapted to the quality control standards according to the International Standards Organisation (ISO) rules 9001:2000.

The quality control guidelines proposed by the ISO are addressed to the aerobiological network to guarantee standardized, accurate and valuable data.

Key words: quality control standards, aerobiological network.

Streszczenie

Obecnie informacje uzyskane z sieci aerobiologicznych powinny być zgodne z Systemem Zarządzania Jakością ISO 9001:2000.

Wytyczne sterowania jakością zaproponowane przez Międzynarodową Organizację Normalizacyjną (ISO) dla sieci aerobiologicznych gwarantują znormalizowane, dokładne oraz wartościowe dane.

Słowa kluczowe: normy kontroli jakości, sieci aerobiologiczne.

(PDiA 2003; XX, 4: 244–245)

Nowadays there is an increase of the number of National Pollen Monitoring Networks in Europe. The main goal of these networks is to disseminate pollen information through the media. This information can be socially useful for all those people who suffer from pollen allergy. In this way, a common methodology should be developed to make possible the comparison of the data obtained in the different sampling points. The idea is to produce a common protocol to be used by all the members belonging to a network. At an European level, the European Aeroallergen Network/ European Pollen Information (EAN/EPI) has agreed in some rules, such as the use of a based *Hirst* type sampler; to analyse at least a 10% of the total sampling; and to express the data in a daily average pollen grains per cubic metre of air. At other stages, some national networks are trying to introduce a quality control system in their networks to guarantee the accuracy of the information. In this way it is not enough to produce valuable information but to know the customer requirement and to publish this information in an easy manner in order to be understood by all the social groups. Nowadays there is an interest in adapting the information generated by the networks to

the quality control standards according to the International Standards Organisation (ISO) rules 9001:2000.

Quality, in general, is the ability to meet all the expectation of the purchaser of goods or services. The ISO addresses the quality management system requirements for an organization to demonstrate its capability to meet customer requirements.

The process model display in this figure is a conceptual presentation of the quality management system requirements specified in this International Standard (fig. 1.).

According with the guidelines proposed by the ISO it could be adapted the aerobiological methodology to the standards of control as follows:

1. Management Responsibility.

Implies the following requirements:

Standardized protocol:

- ▶ Samplers: Hirst type samplers.
- ▶ Physic of sampling: the use of an agreed suitable adhesive common in the network.
- ▶ Location of samplers: opened spaces, 15–20 m above ground level.

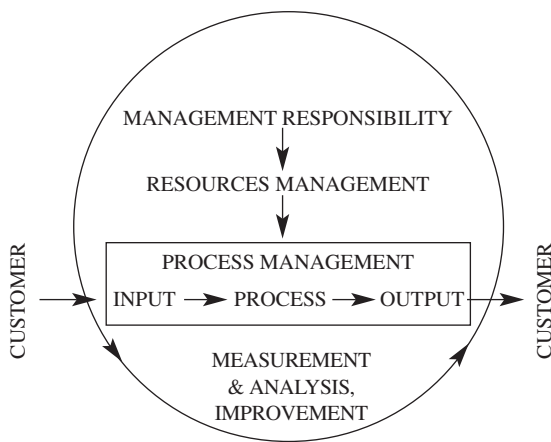


Fig. 1. International Standard. Adapted from ISO/TC 176/SC 2/N 415. July 1998

- ▶ Counting methods: agreed counting methods (the examined surface should not be less than 10–12% of the whole sample).
- ▶ Expression of the results: pollen grains/m³ of air.
Management representative: one co-ordinator centre in the network and regional co-ordinators.
Documents: it should be interesting to count with an agreed protocol of working.
Control of quality record: identification, collection, storage and disposition.

2. Resources Managements.

Human resources: trained personnel to ensure qualification and competence should taking part in the network.
Other resources:
 Training: Basic European Courses series, Advanced International Courses series, Regional training, etc.
 Infrastructure: funds from government, research project, agreements, etc.

3. Process Management.

The Co-ordinator Centre should determine the processes, which are required to operate, such as from customer requirements to customer satisfactions:
Identification of customer requirements:

- ▶ Supply of punctual and detailed information at real time about the pollen content in the air, including main taxa concentrations.
- ▶ Supply forecast to allow people organize the outdoor activities and taking preventions in advance.
Review of customer requirements:
- ▶ To include new pollen types to the main list when necessary.
- ▶ Supply of different categories of pollen concentrations to a better understanding.

Customer communication:

- ▶ To offer to the customer the possibility of expressing their needs through phone lines, web pages, in order to obtain a better service.

4. Design and development.

INPUTS

Customer requirements (allergy and people who suffer from allergy):

- ▶ meteorological information,
- ▶ pollen records,
- ▶ biogeographical and bioclimatical information,
- ▶ etc.

OUTPUTS

Diffusion of processed data: local, regional, national and international information.
Media: Phonelines, TV, Radio, Press, Internet, Mobile Telephoning, etc.
Publications: Scientific papers, congress contributions, bulletins, etc.

Production and services operations:

Handling, packaging, storage and preservation.
 The input collected at the Co-ordinator Centre should be stored in a National Pollen Data Base and punctually sent to the European Pollen data Base.
 All the data should be harmonized to let us quick consults and accessibility.
 Security copies should be updated from time to time to avoid losts.

Measurements, Analysis and Improvements:

Measurements of customer satisfaction:
 Allergists and people who suffer from allergies indicate their suggestions to improve the information. They can used their usual channels.
Measurements of processes:
 It is interesting to held annual meetings where it can be discussed the way of improving the customer requirements, incidences in previous season and development of the co-ordinator projects.
Improvements:
 Joint Researcher Projects between different teams can improve the quality of the results of the network.

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