

REPORT 1ST WORKING GROUP PDO MEETING

BERN 12TH SEPTEMBER 2012

Agroscope ALP, Schwarzenburg Strasse 161, Bern - Liebefeld

This seminar was organized by the Working Group PDO of the European Sensory Science Society.

The event was organized according to the following schedule:

Programme

WG PDO Seminar, Bern
14.00-14.10 Opening, Welcome and Introduction. <i>Patrizia Piccinali - Agroscope Research Center ALP, Liebefeld-Posieux, Switzerland</i>
14.10-14.40 State of the art of the sensory analysis for PDOs in Europe. <i>Mario Zannoni - Organismo Controllo Qualità Produzioni Regolamentate, Reggio Emilia, Italy</i>
14.40-15.00 How to define sensory tipicity in PDO wine <i>Isabelle Maitre -Laboratoire GRAPPE, Groupe ESA, Angers, France</i>
15.00-15.20 An employ of sensory analysis in PDO control : the case of Idiazabal cheese <i>Francisco José Pérez Elortondo - Universidad del País Vasco - Facultad de Farmacia, Vitoria, Spain</i>
15.20-15.40 Sensory analysis and economic reward for PDO cheeses: the case of Trentingrana. <i>Flavia Gasperi - Fondazione Edmund Mach - IASMA, Trento, Italy</i>
15.40-16.00 Do consumers recognize the sensory quality of PDOs products? <i>Carolina Chaya - Universidad Politecnica de Madrid, Spain</i> <i>Luis Guerrero - IRTA, Monells, Spain</i>
16.00-16:30 Round table - <i>All speakers and Patrizia Piccinali as moderator</i>
16:30 Closing remarks. <i>Patrizia Piccinali Agroscope Research Center ALP, Liebefeld-Posieux</i>

The summary of the 4 speeches are included at the end of this report.

Introduction to the meeting was done by Patrizia Piccinali, tireless organiser of the Eurosense and host at Agroscope - ALP.

First talk was done by *Mario Zannoni* who introduced the PDOs in Europe showing the number and importance of the products with an outlook of the most important countries in this field (Italy, France and Spain). Then he presented a summary of the use of sensory analysis for research, consumer tests and quality control. In France sensory analysis for controlling PDOs is widespread and guidelines about the panel management exist. The use of sensory analysis for the control of 10 French PDOs cheeses was also presented. They do every year a number of sensory analysis whose range is between 28 and 111. On the contrary Italy has no general rule for sensory analysis. Ten Italian PDOs of different categories of products were presented and the yearly sensory analysis goes from 25 to 360 with the exception of balsamic vinegar which does ca. 1.500 but with a very simple scorecard.

Some final points were presented:

- sensory analysis has chance to be introduced for official control if the product has prestige and market relevance;
- few consumers know the PDO marks;
- the way to evaluate compliance has to be defined with specific guidelines;
- the producers are normally artisan craftsmen and normally are not interested in sensory analysis;
- for a PDO the description of specificity by sensory means shall be one of the most important requirements.

Isabelle Maitre gave then a definition of typicality as the level of representativeness of an item to a category measured by perceived distance between a given wine and a prototype. A list of attributes, a group of tasters and a check if there is a consensus between tasters on the typicality are necessary. The methodology of work has to be prepared based on memory of the common characteristics.

Some tests were carried out for different wines with a good agreement of judges. Sorting task and napping can be used to sort wines on their typicality level. To characterize what is typical in a sample various methods are used: classical, free choice

or mixed profile. For quality evaluations methods were 2: just about right or how is the difference between the wine and the prototype. The second method is called accreditation cards according to the work of I. Etaio et al. 2012. The method was set up for Rioja wine and is divided in different steps: generation of the card - description of wines - selection of quality attributes - development of top quality scale - a decision tree - reference products.

There is the need to have a shared methodology for evaluation, another one for characterisation and then guidelines for accreditation.

Francisco J. Perez Elortondo talked about sensory analysis for Idiazabal cheese. For quality control the needs are to have limits for sensory parameters and a sampling plan. To decide sensory quality we cannot use the consumers because they are segmented. The role of the consumers is to give information about the acceptable quality limits. The experience done with the cheese showed the quality rating of experts and of consumers matches well, but in the case of wine this did not happen.

In 2007 they published a method for quality evaluation of Idiazabal that was previously accredited. The development of the method for this cheese (later employed also for wine and meat) is divided in 6 stages; the first is that a multidisciplinary group selected the parameters by means of discussion, then they pose the question if the selected parameters affect the product quality and which are the characteristics which should be in the ideal product. Decision trees help in this task. It is of course necessary to have panel training and reference products to harmonize the panel results and the concepts. Results are expressed in total score of the product plus the percentage of tasters which found the attribute.

The limitations of the method are time and cost but Idiazabal is a rather expensive cheese so maybe there is room for an expensive but useful sensory qualification method.

Flavia Gasperi described the sensory quality rating system in use by Trentingrana cheese. The taster's group of the cheese Consortium evaluate the cheese for quality and the results affect the price paid to the producers for the product. The activity of the group was improved with the collaboration with a sensory panel using a QDA profile. For instance randomization of sampling was introduced, then the number of samples per session was reduced, the number of samples taken was connected to the size of the

cheese factory and blind replicated samples were introduced. The judges were regularly trained. The system improved but there are still problems, for instance the mental standards are personal and it is difficult to find a reliable reference.

This activity is a compromise between practical constraints and good sensory practice.

The presentation of *Carolina Chaya* and *Luis Guerrero* was divided in two experiences, one dealing with cheese and the other with olive oil. The cheese tests were done using 8 traditional cheeses (PDOs and not PDOs) of the Ebro Valley area (Spain). Sensory analysis by a trained panel (n=14) and a hedonic tests on 445 consumers were carried on. An external preference map was then performed with consumer clustering. Five consumer clusters were found. Correlations between consumers and panel were found for some parameters and the overall acceptability was comparable.

The olive oil research was done using 8 olive oils, all PDOs, and 400 consumers. A sensory profile with 13 descriptors was prepared implementing the official scorecard. An internal preference map and overall acceptability was done. Four consumer clusters were found. Both panel and consumers were discriminating among samples, diversity among oils was recognized but the consumers were not able to detect the defects. They prefer “sweet” oils even in presence of defects, nevertheless the specificity was recognizable by the consumers.

The discussion at the end of the seminar clearly showed that there are much more topics to discuss than time available.

The main subject of discussion was the role of consumers. It is known that the best PDOs for the experts are not necessary those preferred by the consumers because they are segmented and preference and typicality are different things, and also quality is different from typicality. The consumers are obviously very important in research about PDOs because without knowing consumers responses we do not know how to operate on the market. Sensory work on PDOs has to be focused in identifying the important characteristics of the product, then these descriptors have to be tested on many samples of the PDO and then compared with other products. At the end the consumers tests will show if the consumers are able to recognize and discriminate the products found as typical.

Sensory analysis has to be considered together with other aspects (quality control, marketing etc.) in order to define a general strategy for helping the success of a PDO also considering that a small local product has different requirements than an important PDO with contact with large scale retail trade and export in different countries.

A presentation about a COST Action proposal was held by Carolina Chaya who is the referent to present a project about Sensory analysis of PDOs to COST Action call at the end of September. Draft is almost ready and collaboration from the people present was demanded.

In discussion about future activity the possibility to create workgroups was considered. Such groups could deal with: 1) Sensory methodology to evaluate PDOs; 2) Product (i.e. cheese group, ...); 3) Consumers studies.

Another more promotional activity for our members could be to let producers and sensory analysts in different countries know of the existence of our PDO WG.

The group also considered the possibility to do “national” seminars about sensory analysis of PDOs in different countries using the expertise of our European group.

At the closing stage of the seminar it was evident that the interest for the topic among the participants was strong and there is the need of other discussions about the main concepts and possible options of sensory analysis of PDOs.

An invitation was done to everyone to use the PDO WG window into the e3s site in order to keep in contact and stay informed about future activity of the group.

5th November 2012

Mario Zannoni & Francisco José Pérez Elortondo