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## The International Federation of Fruit Juice Producers' Commission of the Methods of Analysis informs (1990):

In 1990 the analytical commission held two meetings, in which formulate work to complete the analysis-handbook was in the forefront of activities. For this purpose, two further ring-tests were made, in which a great number of methods were tested.

- Pulp content (centrifuged)
- Chloride
- Total solids
- Soluble solids
- Total nitrogen
- Preservatives (HPLC)
- Essential oils (citrus juice)

belong to the methods which were classified as satisfactory. These methods will be published.

Difficulties arose in enzymatical methods for: lactic acid, acetic acid and ethanol, whereby unsatisfactory results occur in so-called coloured juices. In the determination of „volatile acid“ (dest.) and pectin analytical problems occurred, as well. By means of amore exact, detailed version of method, a new ring-test shall be executed.

A titrimetric L-ascorbic acid method was tested as well and showed satisfactory results. The results, however, show a significant deviation (lower contents) from HPLC-method (IFU 17a). This method was released for publication.

A method for determination of the so-called „fruit pulp“ or „cells“ content in citrus juices is not yet fully clarified. After further specification a ring-test shall be repeated.

As to the determination of nitrate (IFU 48) it was concluded that the method is not to be classified as modern due to use of cadmium and therefore a ring-test shall not be carried out. On the contrary, new enzymatical or HPLC-methods are observed at present and tested regarding their usefulness. However, before a corresponding ring-test will be made, the members should have the concurring opinion that, in fact, contents in the field of 3 - 15 mg/l are exactly determinable, which seems to be uncertain at this time.

In 1991, the following methods are to be subjected to a ring-test besides the methods mentioned above which are not classified to be definitively satisfactory:

- Sorbitol in sorbitol-rich juices (enzymatic and HPLC)
- Tartaric acid in grape juices (HPLC)
- D-malic acid (enzymatic)

After long discussions about world-wide standarization concerning the execution of general ring-tests, the commission comes to the conclusion that up to now all ring-tests made sufficiently comply with the corresponding ISO-standards. However, regarding the execution it is desirable to find a consent between AOAC, BGA and also between other national and international committees. The statistical working-group of IFU has been asked to submit corresponding proposals.

Furthermore, the commission requests all persons who are involved in analytics of fruit and vegetable juices to approach the members of the commission with suggestions, questions, experiences etc. and to stir up discussions.

### Microbiology

Contrary to the announcement made in 1990 to introduce a working group „microbiology“, they succeeded but in spring 1991 to bring together corresponding experts. The working group shall represent a continuation of the working group convened in 1972, when Prof. Koch directed the group which standardized in those days some microbiological methods in the field of fruit and vegetable products of trade. The handbook for microbiological methods of IFU published at that time shall be revised and enlarged. As result of the first meeting of this reactivated working group the professional public shall be informed as follows:

- 1) Activity of this group deals with the following products:

- Finished products (fruit and vegetable juices as well as beverages made from these juices) under special consideration of so-called „fresh juices“ and products made cold-aseptically.
- Raw materials resp. semi-finished products. Besides concentrates, purees, basic materials and juices sugar and other sweetening ingredients shall be included. Water for redilution shall not be included.

- 2) As field of activity the group considers the following crucial points:

- Revision resp. reelaboration of classical microbiological methods.
- Examination of methods which are discussed as so-called „new“- or „fast-methods“.
- Acquirement of opinions, recommendations, standard values regarding microbiological questions. Especially hygienic aspects, questions as to quality of raw material and technological difficulties shall be considered under the point of view of GMP and quality assurance.

- Questions of preservation and influencing parameters (temperature, time of storage, preservation, aseptic storage, etc.) shall be included under consideration of synergistic effects.

- Alterations of products and metabolites resulting from microbiological processes are to be integrated into the field of activity.

The working group knows about the wide range of activities and asks the experts who are working in this field to support the group actively. The members would also appreciate an active honorary cooperation in this working group.

For more information please contact the signer of this article.

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