The International fruit and vegetable juice association (IFU) position on the use of Dimethyldicarbonate (DMDC) as a preservative in fruit juices and nectars

IFU would like to thank the chair of the E-WG and its members for its work on dealing with this difficult topic. The proposal from the E-WG is to allow the use of the preservative Dimethyldicarbonate (DMDC) in the Codex product classes 14.1.2.1 (fruit juices) and 14.1.3.1 (fruit nectars), as an additive, in association with a XS 247 footnote. IFU members think this is an unnecessary additive which is not presently required in either of these two categories of products for the reasons highlighted below:

1) It is IFU's contention that with modern packing technologies these product classes can be safely and effectively prepared with an acceptable shelf-life without the general use of preservatives and DMDC in particular. IFU would therefore stress that it is **NOT** in favour of the proposal of the E-WG to allow DMDC use in Codex product categories 14.1.2 (fruit juices) or 14.1.3 (fruit nectars).

2) IFU has worked closely with Codex committees over the last 25 years to assist Governments in the structuring of international regulations for fruit juices and nectar products. It is the position of IFU members, and that of the Codex task force (GEFJ) that generated the Codex Standard 247, that fruit juices and their related products should be as close as possible to the fruit from which they are produced and should use as few additives as possible to maintain their “naturalness”. IFU feels that this is a critical aspect of a fruit juice and is a positive selling aspect of these products to consumers, which IFU’s members wants to retain.

3) The use of a XS 247 footnote was agreed by IFU, and the plenary session of CCFA 53 in 2023, as a means to resolve a long running issue that had been held up in CCPFV for many years concerning the use of xanthan gum in fruit juices and derived products (14.1.2 & 14.1.3). IFU is of the opinion that if a “XS 247” foot note is applied to an additive this means that the resultant product NO long conforms to the fruit juice and nectars standard (247) and so the product **should not** carry the protected term “fruit juice” or “fruit nectar”.

Thus, it should be labelled in a different manner to enable a consumer to instantly tell that these products **DO NOT** conform to the international standard expected for fruit juices and derived products. IFU is concerned that if the use of this footnote is extended further it will move these product groups further away from the fruit from which they are prepared (see point 2 above) and this could have a significant detrimental effect on consumers’ perceptions of these product groups.

4) The proposed use of this additive is in all fruit juice categories: not from concentrate fruit juice (NFC, e.g. single strength fruit juice), fruit juice concentrate (FJC, e.g. products in which water is removed from the fruit juice to improve product stability and reduce shipping costs) and from concentrate fruit juices (FC, e.g. where suitable potable water is added to the fruit juice concentrate to give a material with a minimum Brix as defined in the Annex of STN 247). If DMDC was used at each stage of the packing process of a from concentrate fruit juice there could be multiply applications of the preservative, which liberates methanol into the product on each usage.

IFU asks if, in the 1990 JECFA safety assessment of DMDC, multiple additions of this material to a food product were considered in their risk assessment? If not, should a safety assessment of the multiple
applications of this material, as proposed in the E-WG proposal, be considered before the use of this material is formally approved in these food categories?

5) It should be noted that under “Proposition 65” in California a level of methanol above 23 mg/day would prompt a health warning in that state. With a single dosage of DMDC at 250 mg/l could lead to the ingestion of this level of methanol from just 200 ml of treated juice (a normal portion). If multiple usages of DMDC are allowed during packing the level of methanol in the finished product would be proportionally higher.

6) If the consensus of the plenary session is that this material should be permitted in these two Codex product categories, IFU is of the opinion it is critical that it should be handled as an additive and NOT a processing aid. This would enforce clear labelling for the consumer of its use in the production/packaging of the juice product.