

# CODEX ALIMENTARIUS COMMISSION



Food and Agriculture  
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Agenda Item 3

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## JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON NUTRITION AND FOODS FOR SPECIAL DIETARY USES

Forty-first Session

Dusseldorf, Germany  
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### FAO/WHO EXPERT MEETINGS ON NUTRITION (JEMNU) REPORT REGARDING NITROGEN TO PROTEIN CONVERSION FACTORS FOR SOY-BASED AND MILK-BASED INGREDIENTS IN INFANT FORMULA AND FOLLOW-UP FORMULA Comments from EUVEPRO and ENSA

The European Vegetable Protein Association (EUVEPRO) and the European Plant-Based Foods Association (ENSA) appreciate the work of JEMNU expert panel for their review and guidance on the appropriate Nitrogen to Protein Conversion Factors (NPCF) for soy-based and milk-based infant and young child formulas. The final draft report was published on 18 November 2019 and the conclusions were presented during a side session dedicated to this topic on 23 November.

However, given the technicality of the subject, EUVEPRO and ENSA believe there is insufficient time for CCFSDU41 to consider the conclusions of the final draft report ahead of the 41<sup>st</sup> session, starting on 24 November.

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EUVEPRO & ENSA would like to highlight the following considerations about the final draft report:

The JEMNU panel emphasizes that the evidence underlying the recommended NPCF for soy was based on data for which there is **low certainty**. This is due shortcomings of protein determination methods and paucity of data resulting in low to moderate confidence in the NCF recommended

- The determination of the proposed NPCFs was not derived from data on specific protein ingredients for foods for infants and young children.
- There is no clarity on what should be defined as a protein in view of establishing NPCFs; amino acids only or amino acids and prosthetic groups.
- With regard to option 2 (protein = amino acids + prosthetic groups), only one study on soy protein was available, and this experimental study notably excluded 7S protein  $\beta$ -conglycinin from the determination of NPCF.
- It is clear from the available studies on soy proteins that in addition to the paucity of experimental data on NPCF determination, and in particular for determination of NPCF based on amino acids + prosthetic groups, there is also no clear understanding of what constitutes “soy protein” with earlier data in particular not including 7S protein  $\beta$ -conglycinin.
- The report also mentions that the current conversion factor of 6.25 is an overestimation for other protein sources (e.g. meat).

**Therefore, EUVEPRO & ENSA would strongly encourage that a decision is taken by CCFSDU that is based on high certainty and relevance of data, and not on data with low or very low relevance and certainty, as is currently proposed.**

EUVEPRO & ENSA would like to stress the importance of accurately determining protein levels for Infant formula (IF) and Follow-up formula (FUF), as originally requested by CCFSDU. A change in the NPCF for soy could have several negative consequences:

- Notably, inaccurate use of the NPCF for soy-based ingredients in IF and FUF would create a potential for **exceeding the daily protein intake** with respect to infants and young children. There have been a number of nutrition studies performed comparing the efficacy of milk vs soy proteins at equivalent inclusion levels. In studies where the soy protein content was calculated using the 6.25

NCF, equivalence of growth and development of infants was clearly demonstrated. If soy inclusion is increased in these applications, then the study data would need to be re-interpreted, and there would likely be a need for further studies of this type to re-confirm actual dietary requirements in these age groups. In revising the Follow-up Formula Standard, CCFSDU has recognised the risk of exceeding dietary protein requirements in infants and young children and lowered their recommended protein inclusion levels in these applications to 1.8 g/100 kcal from 3.0 g/ 100 kcal.

- Establishment of a lower NPCF for soy-based ingredients (based on low certainty of evidence) in formulas within the mandate of CCFSDU, will likely lead to a request to change the factor used for determining **protein content in all foods** containing soy protein within the scope of Codex Alimentarius. This can lead to unfair competition with other protein sources (cf. overestimation mentioned in report).
- Unfair **trade** advantages for other food protein using a 6.25 NPCF. If it is true that 6.25 is inaccurate for soy protein, then it is also likely true that this is not an accurate factor for other proteins. Lowering the NPCF from 6.25 to 5.7 as proposed, would result in a 10% loss of the calculated protein quantity in soy-based food products. This would greatly impact soy protein processors who sell their products based on protein content, which is often reflected in tariff rates. It would eliminate the entire category of "Isolated Soy Protein" from the marketplace as a result of the lower calculated protein content (note that ISP is the only type of soy protein that is permitted for use in IF & FUF). This would necessitate expensive label changes for CPG companies. It would also force them to incur significant reformulation costs to reach stated protein content claims.

The JEMNU panel remains unclear about what the intention is for establishing conversion factors for protein in IF and FUF: to measure the amino acid content in a food, or rather to measure the amino acid content incl. protein associated prosthetic groups. EUVEPRO & ENSA believe this question should constitute a further technical discussion within Codex Alimentarius in relation to protein determination in the IF & FUF standards. It should also be part of a wider consideration of what constitutes "protein" in relation to soy.

Based on the above, EUVEPRO & ENSA consider that:

- It is premature that CCFSDU41 agrees on either of the JEMNU proposed options 1 or 2, in particular for soy proteins. Agreeing a NPCF based on low or very low grade data is not appropriate and could negatively impact the infant and young child population that consume soy-based formulae.
- In the meantime, the current NPCF for soy of 6.25 should be maintained pending the extensive range of further research that will be required to determine soy NPCFs with greater accuracy.
- Moving forward, we support JEMNU's advice to undertake collaborative efforts to improve the accuracy of testing methods to determine NPCFs that are used specifically in foods for infants and young children.
- There is also a need to agree on the most appropriate definition of "protein" in general and soy protein in particular for IF & FUF, prior to commissioning such research efforts.
- In further assessing the draft conclusions of the JEMNU panel, a consultation with manufacturers of IF and FUF would be appropriate.