



20 November, 2021

## **FEDIOL food and feed safety chain risk assessments: methodology**

### **1. The following crops subject to a food and feed safety chain risk assessment:**

- rape seeds
- soybeans
- sunflower seeds
- palm fruits and palm kernels
- coconut

### **2. The chain risk assessments were conducted as follows:**

2.1. Per oil containing crop, FEDIOL constructed a flow chart covering the following chain elements: the cultivation of the crop, the storage and transport of the harvested oilseed or oil fruit, the processing of these into various oil and protein rich products, and the storage and the final transport of these to the food/feed industry. The feed materials palm kernel meal and copra fall outside the scope of these assessments as they are produced by companies that are not a member of FEDIOL.

2.2. Per chain element, FEDIOL described the food/feed safety hazards that can reasonably be expected to occur at that point in the chain, provided no safety measures are in place. For the processing steps (crushing and/or refining and further processing) utilities-related hazards were commonly described. A safety hazard is a biological (B), chemical (C) or physical agents (P) in, or condition of, a product that makes it injurious to human or animal health.

2.3. In the elements of the chain that cover agricultural activities such as the cultivation of crops, the transport and storage of the harvested oil seeds or oil fruits and the drying of the oil seeds and the crushing of the oil fruits, the control of hazards is the responsibility of the operators active in that part of the chain. This explains why the hazards occurring there were only identified, but their risks were not further assessed (no chance and seriousness assessment). The hazards appearing in the FEDIOL risk assessments, however, will allow the local operator to take the necessary measures. FEDIOL members are to verify this when they are active in these chains. Control measures for these hazards can eventually be taken at the level of crushing or refining as well.

2.4. In the elements of the chain that directly relate to the professional activity of the FEDIOL members, i.e. the crushing of oilseeds and the refining and

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further processing of oil and the storage and transport of these, per hazard, FEDIOL set the risk as follows:

2.4.1. Expert's experience guiding the assessment of the likelihood of the hazard occurring or "chance" as very low, low, medium or high.

These chance classes can be quantified as follows:

- very low: the hazard has never occurred, but may occur
- low: the hazard may occur once in five years
- medium: the hazard may occur once a year
- high: the hazard may occur more often than once a year

2.4.2. Seriousness should relate to the risk of the molecule/substance for the animal or human health. It can be subdivided as follows:

- little: small injuries, little illness
- medium: substantial injuries or illness
- high: short or long-term fatality

2.5. FEDIOL classified the risks according to following table:

<b>Seriousness</b>	Little	Medium	High
<b>Chance</b>			
Very low	1	1	2
Low	1	2	3
Medium	2	3	4
High	3	4	4

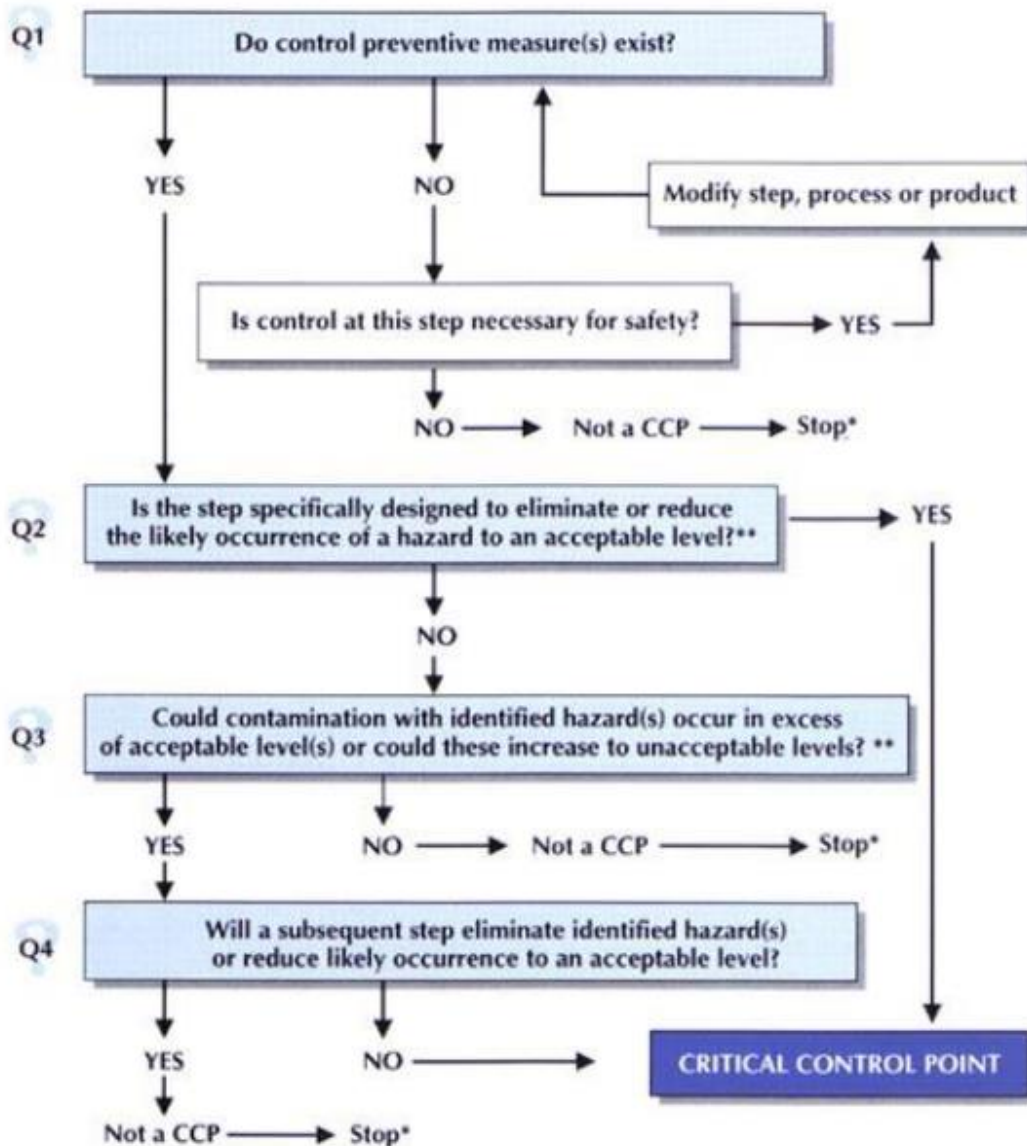
2.6. FEDIOL justified the risk assessment.

2.7. FEDIOL checked whether EU legislation or trade standards such as those of FEDIOL and FOSFA or NOFOTA set limits for the respective hazard, and if so, listed them.

2.8. FEDIOL formulated control measures based on the following table:

<b>Risk class</b>	<b>Action</b>
1	No control measures needed
2	No control measures needed, but periodically evaluate if control measures are necessary
3	The risk is medium. The risk has to be controlled. The hazard shall be reduced and/ or eliminated to an acceptable level by the effective combination of OPRP or CCP, defined based on the decision tree (see below)
4	The risk is high. The risk has to be controlled. The hazard shall be reduced and/ or eliminated to an acceptable level by the effective combination of OPRP or CCP, defined based on the decision tree (see below).

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2.9. The packing of goods is outside the scope of this methodology for assessing chain risk analyses. Transport of ex-works deliveries is outside the scope of this methodology as well.

3. The safety risk assessment of the food and feed chains of soybeans, rapeseeds, sunflower seeds, palm/palm kernel oil and coconut oil are available on the FEDIOL website, [click here](#).