

Methodology of the FEDIOL food and feed safety chain risk assessments

1. FEDIOL made the following crops subject to a food and feed safety chain risk assessment:

- soybean
- rape seed
- sunflower seed
- palm fruit and palm kernel
- coconut

2. FEDIOL conducted the chain risk assessments 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 may be reasonably 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 is why the hazards occurring there were only identified, but their risks were not further assessed (no chance and seriousness assessment). The hazards having been listed 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. But control measures for these hazards could 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

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

2.4.1. On the basis of expert's experience assessed 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 5 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 subdivides as follows:

- little: small injuries, little illness
- medium: substantial injuries or illness, immediate or on longer run
- high: fatal effects, serious injuries or illness, immediate or on the longer run

2.5. Classified the risks according to following table:

Seriousness	Little	Medium	High
Chance			
Very low	1	1	2
Low	1	2	3
Medium	2	3	4
High	3	4	4

2.6. Justified the risk assessment.

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

2.8. Formulated control measures based on the following table:

Risk class	Action
1	No control measures needed
2	No control measures needed, but periodically evaluate if control measures are necessary
3	Risk to be controlled by generally verifiable measures such as good operation practices (Prerequisite Programmes or PRP)
4	Risk to be controlled by a measure that is specifically designed to control the risk (CCP)

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.

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3. The safety risk assessment of the food and feed chains of soybeans, rapeseeds, sunflower seeds, palm/palm kernel oil and coconut oil are attached below and they are also available on the FEDIOL website: www.fediol.be/5/index9.php.

As described above, each risk assessment is made up of the following sections:

- a flow chart depicting the full supply chain
- sheets discussing risks per step in the supply chain, ie cultivation, drying, crushing, refining, storage and transport.

For the storage and transport sheets of the sunflower, rapeseed, palm (/kernel) and coconut chains, please refer to those of soybeans.

4. **FEDIOL discussed the non-relevant hazards in a separate document**

A particular contaminant may have an EU legal limit applying to an oil or fat or protein product that in practice does not represent a hazard to that product. The contaminants for which this is the case have been listed in a separate document, ("considerations" document), which can be found on this website as well.

5. **FEDIOL will evaluate the food and feed safety assessments of the chains of oilseed and oil fruit products on a yearly basis.**

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