Nederlandse Voedsel- en Warenautoriteit
*Ministerie van Economische Zaken*

# Prioritization of compounds for a risk based NPR

## review of Directive 96/23/EC

29 november 2018

# Goals of (residue) monitoring

compliance

control of compliance to support oversight

prevalence

prevalence is required for exposure assessment, trends and for prioritization of substances

emerging risks

investigation of emerging risks to get prepared for future risk-based monitoring

# Monitoring

| goal of monitoring | substances | sampling |
|---|---|---|
| **compliance** | targeted | targeted |
| **prevalence** | targeted | at random |
| **emerging risks** | non-targeted | at random/targeted |

targeted → risk-based

Risk-based

→ *what* has to be sampled (substance-product, which matrix).

not: *where* has to be *sampled* (which part of food production chain, which company)

# Risk based monitoring – prioritization of substances

Prioritization of substances

risk-based: chemical food safety

(no political, economical or social triggers)

**Three decision trees, for**

1. Prohibited substances
2. Veterinary medicinal products
3. Contaminants, pesticide residues, natural substances (i.e. mycotoxins)

# Effective monitoring - risk criteria

## criteria used in decision trees

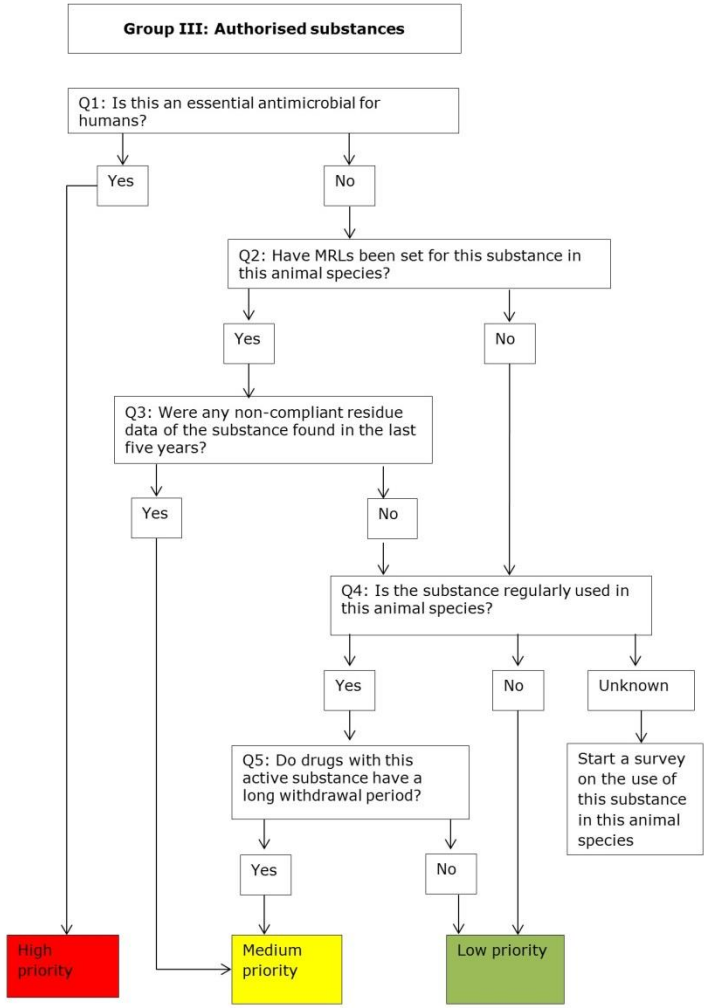
| | prohibited substances | veterinary medicinal products | contaminants |
|---|---|---|---|
| Presence of action limit, MRL/ML, limit of detection | | x | x |
| Conform/non-conform results in the last five year | x | x | x |
| (Probability on) use in species | x | x | |
| Scientific information for human risk | x | | x |
| Length of withdrawal period | | x | |
| Conform/non-conform residues detected in feed | | | x |
| Transfer of substances to animal products (milk, egg, honey) | | | x |

→ Execution of prioritization process by experts (toxicology, monitoring)

# Example of decision tree

Result:
three classes of substances :
high, medium and low priority

Use of decision tree
per species and animal product
(meat, milk, egg, honey)



# Supporting publications

- Risk-based monitoring of chemical substances in food: prioritization by decision trees (scientific paper)

  E.D. van Asselt, M.Y. Noordam, M.G. Pikkemaat, F.O. Dorgelo. , *Food Control* (2018),

  doi: 10.1016/j.foodcont.2018.06.001

- Revision of the National Residue Control Plan – application on the red meat supply chain. (report)

  https://www.wur.nl/nl/Publicatie-details.htm?publicationId=publication-way- 353338393438