



Human Health Risk Assessment of the Pesticide Simplex with the Active Substances Aminopyralid and Fluroxypyr

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Authors' contributions

This work was carried out in collaboration among all authors. The opinion has been assessed and approved by the Panel on Pesticides of VKM. All authors read and approved the final manuscript.

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Grey Literature

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ABSTRACT

Simplex is a new herbicide in Norway containing the active substances aminopyralid and fluroxypyr. Aminopyralid is a new active substance in Norway, but fluroxypyr is found in several authorized products. The application concerns use in established grassland for forage, established ley and pasture and in grass at the first year of sowing. The Norwegian Scientific Committee for Food Safety (VKM) has on a request from the Norwegian Food Safety Authority performed a risk assessment on human health of the active substance and the product. The risk assessment of the product was approved at a meeting May 11 2010 by VKM's Scientific Panel on Pesticides (Panel 2). VKM's Panel 2 concludes as following:

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Both Simplex and the active substance aminopyralid are characterized as extremely irritating to the eye based on persistent irritation to the eyes of rabbits. The product Simplex is also found irritating to the rabbit skin.

Aminopyralid has low acute toxicity and is not shown to have genotoxic potential, or to be teratogenic or toxic to the reproduction in animals. There may however be a carcinogenic effect of aminopyralid based on an increased number of uterine sarcomas in mice. The main target organs for sub-chronic and chronic toxicity were the caecum (rats), the stomach (dogs, inflammation) and the liver (dogs, hypertrophy). No adverse effects for chronic toxicity were seen in mice. Rabbit was the most sensitive species for toxicity and the no observed effect levels (NOAELs) derived from studies in this species serve as base for calculations of values for acceptable daily intake (ADI) and acceptable operator exposure level (AOEL).

The estimated risk for operator is assessed as minimal both by use of boom spraying (46% of AOEL) and knapsack sprayers (81% of AOEL).

However, as a result of the hazard classification, a faceshield and gloves are necessary personal protective equipment (PPE) to be worn during mixing and loading operations, due to the risk of serious damage to the eyes and skin irritation.

Keywords: VKM; assessment; Norwegian Scientific Committee for Food Safety; fluroxypyr.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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