

IRSNINSTITUT
DE RADIOPROTECTION
ET DE SÛRETÉ NUCLÉAIRE

CONTAMINATION OF FARM PRODUCE

Contamination of foodstuffs was determined by the date of the accident and deposition characteristics

Over the weeks following the accident, thousands of analyses were carried out on food products. Leafy vegetables, milk and meat were the main products contaminated due to the season. The east of France was the most severely affected. Contamination did not increase in proportion to deposition.

THE DATE OF THE ACCIDENT LIMITED THE REPERCUSSIONS IN TERMS OF CONTAMINATION OF LARGE-SCALE CEREAL, FRUIT AND WINE PRODUCTION

In early May 1986...

Wheat was in the blade. The kernels had not yet started to form.

The leaves on vines and fruit trees were only in their early stages.

Some vegetables were ready to harvest.

Grass was abundant and the cattle were often out to graze.



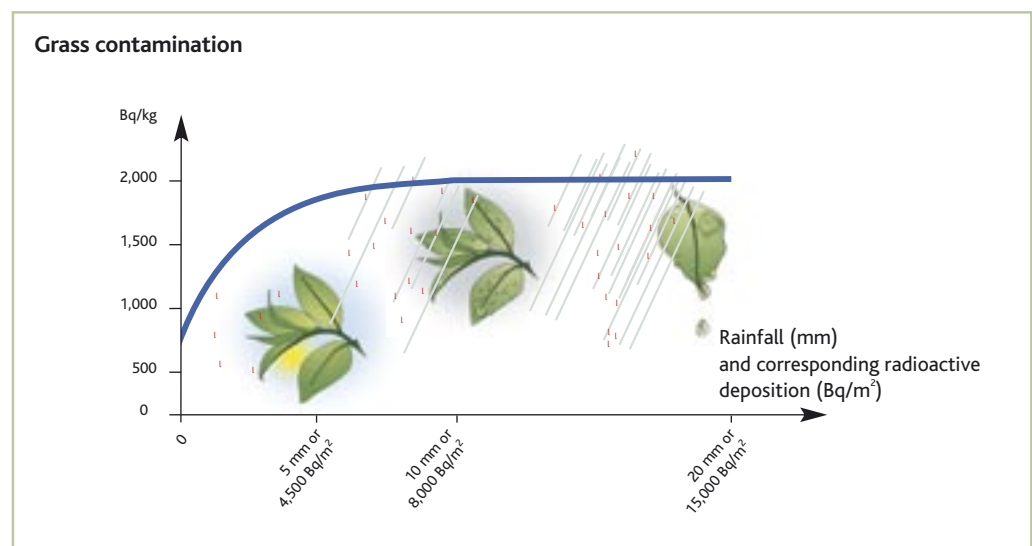
GRASS IS HIGHLY RECEPTIVE TO RADIOACTIVE DEPOSITION

However, contamination levels are low in fine weather as deposition levels are low.

During a shower, contamination increases with the level of deposition.

After a few millimeters of rainfall, plant and

vegetable leaves only retain part of the water and thus the depositions they receive. There is a higher level of deposition in the soil, but grass contamination ceases to rise.

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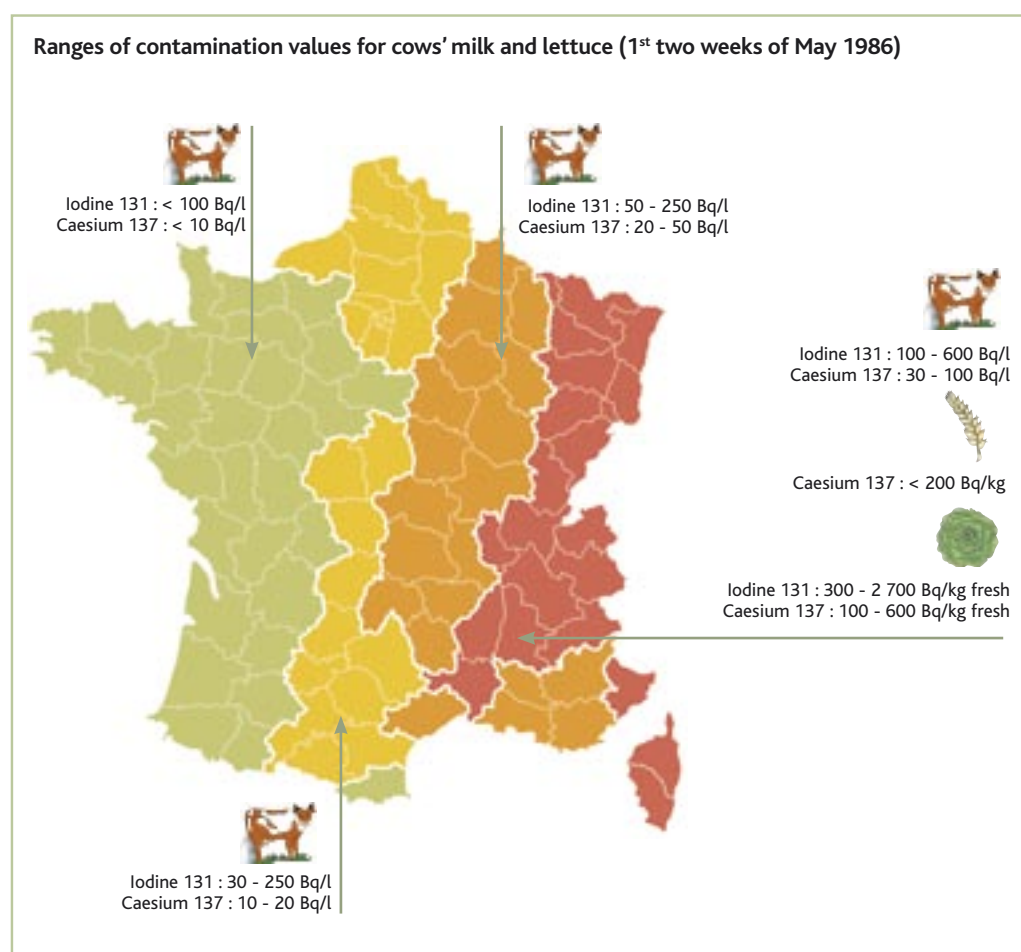
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RANGES OF CONTAMINATION VALUES

The map below presents the ranges of contamination values measured in cows' milk and lettuce during the first two weeks of May 1986. France can be divided into 4 areas in which the contamination observed on foodstuffs was relatively homogenous.

In the east of France where deposition was highly variable, contamination of farm produce varied by a factor of 2 to 10 between the least affected areas and the areas receiving the highest levels of deposition during rainfall.

Outside of the five departments in the south-east of France (Drôme, Ardèche, Bouches-du-Rhône, Vaucluse and Corse du Sud), cereals were not contaminated to a significant extent as they were in their early stages of development at the time of deposition.



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