



What is special about residues of phosphonic acid?

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What is special about residues of phosphonic acid?

Residues of phosphonic acid may be due to different causes.

1. 'standard causes' for pesticide residues in general, such as

- unauthorized use
- commingling of organic and conventional food
- drift

2. 'specific causes' for phosphonic acid

- see following slides

Persistence in plant material

- Phosphonic acid is known to be persistent in plants.
- In grapevines, persistence has been shown for at least 6 years. Longer persistence is not unlikely, but systematic studies are lacking.
- In perennial crops, residues of phosphonic acid may be due to applications which took place before conversion.
- When conventional propagation material is used, it may contain considerable amounts of phosphonic acid.

Presence in inputs

- There have been numerous findings of phosphonic acid in agricultural inputs such as plant strengtheners, fertilizers or fungicides.
- Usually, this is not declared on the product label, so there is no fault of the organic operator.
- In different parts of the world, different loopholes in different legislations facilitate the presence of phosphonic acid in agricultural inputs. However, the EU organic legislation is clear that phosphonic acid is not allowed in organic production.

Potential for confusion

- It is often argued that such residues originate from phosphate fertilizers. However, phosphate is not converted into phosphonate under natural conditions.
- There are two chemically distinct substance categories, which are both called 'phosphonates'. Most 'phosphonates' will not cause residues of phosphonic acid.
- Due to EU MRL legislation, most labs report findings of phosphonic acid as 'fosetyl (sum)'. This regularly leads to the conclusion that fosetyl is present in a sample, which is often not correct.

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