

Bentazone

Updated April 2019



Protect water to keep bentazone as a weed control option

Bentazone is a spring applied herbicide for use in peas, beans, linseed, potatoes and narcissi. It has been identified in official UK surveys as the approved herbicide with the most frequent exceedances of legal limits in groundwater, and is also increasingly found in surface water. Unless extreme care is taken to protect water from bentazone, there is a serious risk that its use may be restricted or lost.

How does bentazone get to water

- Bentazone is extremely soluble in water and highly mobile in soil.
- All pathways matter. Bentazone may leach to groundwater on vulnerable soils. Surface water may be reached via drainflow, surface runoff or spray drift.

How best to use this active

- Avoid use of bentazone on soils vulnerable to groundwater leaching, e.g.
 - soils on chalk/limestone that are shallow (<30-35cm) and stony (>10% of surface area)
 - shallow (<30-35cm) soils on sandstone
 - soils with shallow groundwater (<1m below surface)
 - soils with low organic carbon content (<1% OC)
- Do not apply if heavy rainfall is likely within 48 hours.
- Avoid application when drains are flowing or likely to flow within 7 days.
- Reduce dose rates (≤ 1000 g ai/ha/year) as far as possible.
- Use bentazone as late as possible to reduce leaching probability, **do not apply in autumn/winter.**

Follow basic water protection advice

- Point pollution sources (farmyard runoff, spillages) must be avoided.
- Take care when filling and cleaning the sprayer.
- Use a minimum 6m grass buffer strip or 5m no-spray zone adjacent to watercourses.
- Do not apply if soils are dry, cracked or saturated.

High Risk Areas

Drinking Water Groundwater Safeguard Zones (for Bentazone or Nitrate)*
Groundwater Source Protection Zones 1+2**

Levels of bentazone above the 0.1ppb limit have been detected in some UK groundwater and surface water bodies. Discuss with your adviser optimum use of bentazone to avoid unacceptable risks to water.

Reducing the risk

- Do **not** apply more than 1000 g ai/ha/year
- Do **not** use bentazone on:-
 - soils on chalk/limestone that are shallow (<30-35cm) and stony (>10% of surface area)
 - shallow (<30-35cm) soils on sandstone
 - soils with shallow groundwater (<1m below surface)
 - soils with low organic carbon (<1% OC)

On other soils:-

- Always follow the advice on the left hand side of this sheet.
- In addition, if at least 3 of the following criteria are met, then the risks to water will be significantly reduced: ✓ or X
 1. Heavy rainfall is unlikely within 48 hours
 2. Field drains are not flowing and are unlikely to flow within 7 days of application
 3. There are no field drains in the field
 4. Field slope is less than 5% (a 5% gradient is 1m fall in 20m)
 5. The field is not bordered by a watercourse
 6. Application occurs in spring/summer after 1st April

* See the Environment Agency's "Check your Zones" website <http://bit.ly/CheckZone>

** See Natural England's "Magic Map" website <https://magic.defra.gov.uk/>