# Leicestershire farmer pursues legal action after airport pollution kills 25 pedigree lambs



A pedigree livestock farmer in Leicestershire, David Thornley, has announced plans to take legal action against East Midlands Airport, claiming that a polluted waterway has led to the loss of valuable lambs from his breeding ewes. This troubling incident revolves around Diseworth Brook, where Thornley alleges that a leaking pipe from the airport contaminated the water, resulting in the loss of 25 pedigree lambs from his flock of 100 ewes. The loss has been particularly painful for Thornley, who, as an experienced breeder, would typically expect only a 2-3% pregnancy loss rate after embryo transfers. The court case comes after East Midlands International Airport Ltd admitted in April to exceeding environmental permit limits regarding the discharge of contaminated water from its holding ponds earlier in 2022.

Despite the airport's guilty plea, the management contests any direct link between its activities and the pollution affecting the brook. They assert that the pollutants identified in water testing were not from the airport's de-icing chemicals, which typically include compounds like propylene glycol, but rather contaminants associated with sewage. This perspective, however, has been met with scepticism from Thornley and environmental agencies, especially given the established impact of de-icing chemicals on water quality.

Research indicates that de-icing chemicals can significantly degrade aquatic ecosystems. Studies from various institutions, including Bangor University and Jena University, have demonstrated that these chemicals can lead to increased levels of phosphorus in nearby waterways, resulting in harmful algal blooms and reductions in aquatic biodiversity. For instance, a study by the US Geological Survey found that during de-icing periods, 84% of water samples taken downstream showed elevated phosphorus levels that posed risks to aquatic life, highlighting the environmental hazards associated with de-icing practices at airports.

In light of the concerns raised by Thornley, the Environment Agency was called to investigate the situation, and they promptly confirmed an incident involving a "small leak" into the brook. Despite their involvement, Thornley asserts that his evidence regarding the impacts of the airport's operations on local water quality was sidelined, as the airport’s legal team entered guilty pleas unexpectedly before a trial could proceed. As a result, the Environment Agency has so far limited its prosecution to three of six charges against the airport regarding the unlawful discharge of contaminated wastewater.

The ramifications of this situation extend beyond Thornley's farm. Local environmental advocates, including members of the Derby Railway Angling Club, echo his concerns, citing the detrimental effects of airport chemicals on watercourses. They assert that the River Trent, where de-icing chemicals have been detected, is home to rare fish species and is at risk due to declining water quality. Gary Cyster, a retired fisheries inspector, lamented missed opportunities to address further charges linked to these environmental impacts, labelling sewage fungus – a byproduct of nutrient overload in aquatic systems – as a leftover from a bygone era.

The airport, meanwhile, maintains that it takes its environmental responsibilities seriously and collaborates with the Environment Agency to control its water drainage systems. They affirm that they are committed to resolving any issues raised by local landowners. Nonetheless, Thornley claims that the airport has ceased to provide the additional grazing land it had rented to him, which previously helped keep his livestock away from the brook during months when water contamination was most likely.

The ongoing case reflects a broader debate about the environmental accountability of airports, particularly as East Midlands Airport seeks to expand operations under the forthcoming East Midlands Freeport initiative. The combination of increased traffic and the airport's historical lack of stringent discharge regulations raises alarm bells among environmental advocates.

As Thornley seeks £50,000 in compensation, he reflects the sentiment of many in the agricultural and environmental sectors, calling for safer practices and better management of de-icing chemicals to safeguard both livestock and local ecosystems. The challenge now lies in addressing what many see as a systemic issue in the regulation of airport pollution and its far-reaching implications for agricultural viability and biodiversity.

**Reference Map:**

* Paragraph 1: [[1]](https://www.bbc.com/news/articles/c5yld5p1j1lo), [[2]](https://www.bbc.com/news/articles/c5yld5p1j1lo)
* Paragraph 2: [[1]](https://www.bbc.com/news/articles/c5yld5p1j1lo), [[2]](https://www.bbc.com/news/articles/c5yld5p1j1lo)
* Paragraph 3: [[3]](https://www.usgs.gov/news/state-news-release/popular-ice-control-products-used-airports-can-increase-phosphorus-nearby), [[4]](https://www.army.mil/article/162331/de_icing_impacts_local_water_quality), [[6]](https://pubs.acs.org/doi/10.1021/acs.est.3c03417)
* Paragraph 4: [[1]](https://www.bbc.com/news/articles/c5yld5p1j1lo), [[2]](https://www.bbc.com/news/articles/c5yld5p1j1lo)
* Paragraph 5: [[1]](https://www.bbc.com/news/articles/c5yld5p1j1lo), [[2]](https://www.bbc.com/news/articles/c5yld5p1j1lo), [[4]](https://www.army.mil/article/162331/de_icing_impacts_local_water_quality)
* Paragraph 6: [[1]](https://www.bbc.com/news/articles/c5yld5p1j1lo), [[2]](https://www.bbc.com/news/articles/c5yld5p1j1lo)
* Paragraph 7: [[1]](https://www.bbc.com/news/articles/c5yld5p1j1lo), [[2]](https://www.bbc.com/news/articles/c5yld5p1j1lo), [[5]](https://www.sciencedaily.com/releases/2015/04/150429085424.htm), [[6]](https://pubs.acs.org/doi/10.1021/acs.est.3c03417)

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## Bibliography

* <https://www.bbc.com/news/articles/c5yld5p1j1lo> - Please view link - unable to able to access data
* <https://www.bbc.com/news/articles/c5yld5p1j1lo> - A BBC article reports that farmer David Thornley plans to sue East Midlands Airport, alleging that a leaking pipe polluted Diseworth Brook, leading to the loss of 25 pedigree lambs from his ewes in 2022. The airport pleaded guilty to exceeding environmental permit limits by releasing water containing chemicals from holding ponds but denies a link between the discharge and bacterial pollution in the brook. Thornley seeks £50,000 in compensation and expresses concerns over the airport's environmental practices.
* <https://www.usgs.gov/news/state-news-release/popular-ice-control-products-used-airports-can-increase-phosphorus-nearby> - A U.S. Geological Survey study found that common ice control products used at airports contribute to elevated phosphorus levels in nearby waterways. During deicing periods, 84% of samples collected downstream of an airport had phosphorus levels likely traced to these products, with 70% exceeding aquatic life guidelines. High phosphorus levels can lead to harmful algal blooms, fish mortality, and habitat loss, highlighting the environmental impact of airport deicing operations.
* <https://www.army.mil/article/162331/de_icing_impacts_local_water_quality> - The U.S. Army discusses the environmental impact of de-icing materials used on roads and sidewalks, noting that runoff from these materials can pollute water bodies with chemicals, minerals, and sediments. This pollution can harm aquatic life by introducing toxic metals and excessive nutrients, leading to algal blooms. The article emphasizes the need for effective management of de-icing agents to protect water quality and ecosystems.
* <https://www.sciencedaily.com/releases/2015/04/150429085424.htm> - A study by geoscientists from Jena University analyzed soil contamination from melt waters at airports, finding that de-icing agents like propylene glycol and potassium formate negatively impact groundwater quality and soil functions. The research highlights the environmental consequences of airport de-icing practices, emphasizing the need for sustainable alternatives to protect soil and water resources.
* <https://pubs.acs.org/doi/10.1021/acs.est.3c03417> - A study published in Environmental Science & Technology examines the contribution of airport ice control products to total phosphorus loadings in surface water runoff. The research found that these products are present in 84% of water samples collected at downstream sites during deicing events, with phosphorus concentrations exceeding aquatic life benchmarks in 70% of samples. The study suggests that airport deicers could be a previously unrecognized source of phosphorus to adjacent waterways.
* <https://pubs.acs.org/doi/10.1021/es8017732> - An article in Environmental Science & Technology investigates the aquatic toxicity of airfield-pavement deicer materials and their implications for airport runoff. The study found that concentrations of deicer materials often exceeded levels of concern for aquatic toxicity, with toxicity driven by freezing-point depressants in the deicers. The research underscores the need to consider deicer impacts when evaluating the effects of chemical deicers on aquatic ecosystems.