Foamstream Ltd

TUS

Technological University of Shannon: Removing Red Algae for a Cleaner Campus

Technological University of Shannon (TUS) Thurles Campus faced persistent red algae staining on stone stairs and building facades, a common issue in Ireland's damp climate. The orange-red patches looked unsightly and could become slippery when wet, posing safety risks. TUS aimed to remove the algae thoroughly, prevent its return and avoid harsh chemicals, in line with its sustainability goals and operational needs.

Industry: Higher Education

Location: Thursles, Co. Tipperary

Client Profile: TUS is a multi-campus university with a strong focus on environmental responsibility. The affected site included academic buildings and outdoor spaces used daily by students and staff. Safety, minimal disruption, and sustainable practices were key project requirements.

Problem/Challenge

The main challenge was the presence of Trentepohlia (red algae) on exterior surfaces.

- **Red Algae Staining:** Trentepohlia algae had stained steps and walls with a vivid red/orange hue. It thrives in moist, shaded areas and is tough to remove.
- **Safety and Appearance:** The algae created slippery surfaces and made the buildings look neglected, unacceptable for a modern, well-maintained campus.
- **Ineffective Conventional Methods:** Power washing alone wouldn't kill spores. Chemical cleaners could pose health risks, require cordoning off and contradict sustainability policies. TUS needed an effective, non-invasive alternative suitable for use during normal operations.

Goals and Objectives

The objectives defined were:

- Remove visible red algae and stains
- Prevent quick regrowth
- Improve step safety and surface traction
- Avoid chemicals or methods requiring area closures
- Use a process aligned with TUS's environmental principles

Solution Provided

Foamstream delivered a soft-wash solution combining near-boiling water and a biodegradable biocide to eliminate the algae:

- **Initial Cleaning:** Hot water was applied to the affected stone to break up grime and kill surface algae. The method was safe for use during regular campus hours with no disruption.

- **Biocide Application:** A low-pressure spray of biodegradable biocide followed to kill spores and provide ongoing protection. The product, widely used in horticulture, was safe once dried and left no harmful residue.

- **Final Rinse and Monitoring:** After curing time, the area was rinsed. Stone surfaces were visibly restored, and algae regrowth was minimal over the following weeks. Untreated test patches confirmed the biocide's effectiveness in preventing return growth.

Results and Impact

The transformation was clear. Stairs and walls returned to their natural colour, and slip risks were eliminated. The cleaned entrance area looked brighter and more welcoming. The treatment's residual effect kept surfaces clear through autumn, reducing future maintenance needs.

Staff appreciated that the process required no area closures or harsh chemicals. Regular inspections and light cleaning are now sufficient to maintain the space. TUS achieved immediate improvement and long-term benefits without compromising safety, sustainability or operations.

Before

After

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Before

After

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