

**Dún Laoghaire-Rathdown County Council
Municipal Services
Cleansing & Beaches Section**



**Weed Control on Hard Surfaces
Development of an Integrated Weed Control Plan
May 2018**

1. Introduction

Dún Laoghaire-Rathdown County Council Cleansing Section is responsible for weed control on almost 700km of roadway in the county. Up to now, as is the case for many other local authorities around the country, the primary method of weed control used on hard surfaces is by spray application of a herbicidal product. In recent years, the method of application used by DLR County Council was changed to a targeted application method, rather than a spray method, which aimed to reduce the volume of herbicide being used and deliver a more efficient and less environmentally hazardous approach. The product used, Nomix dual, also reduced health & safety risks to operatives by eliminating the risks associated with diluting the product before application.



Fig 1: Weed Growth on Hard Surfaces

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Fig 2: Targeted application of herbicide

The manual removal of weeds using scuffle and brush techniques has also been used by the Cleansing Section in many areas of the County, in particular in areas where residents have expressed a wish that herbicide not be used, or in small-scale areas requiring weed control. This is an effective technique, although it is labour intensive and regrowth of weeds does occur sooner than treatment using herbicide.



Fig 3: Targeted droplet application of herbicide

2. 2017 - Trials of Weed Control Using Alternative Products

In Summer 2017, further to requests for the investigation of alternative methods of weed control, DLR Cleansing & Parks Sections participated in a trial of weed control measures using alternatives to glyphosate-based products – hot water and hot foam products. The outcomes of these trials are documented in the report: 'Report on Alternative Weed Control Measures Piloted by Dún Laoghaire-Rathdown County Council,' dated April 2018. To summarize the trial, it was found that the hot foam product was more effective than the hot water solution. However, as the hot foam method requires a number of applications, this method was deemed to be too expensive and too wasteful in terms of water and energy use to be considered as a feasible alternative approach to

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weed control on a large scale on roads and streets in the county. In addition, as the machine was very cumbersome, it is considered an inappropriate method of weed removal on streets with access restrictions or a high number of parked cars. However, the Parks Section is considering its use in flagship parks and playgrounds around the county and plans to purchase a hot foam machine similar to the type used in the trials in the coming months.



Fig 4: Hot Foam Application for Weed Control

In addition, the Parks Section are in the process of reducing their use of herbicide on open spaces and are piloting alternative landscape maintenance regimes at a number of sites throughout the County this year. The intention is to support the reduction and ultimate elimination of use of herbicides in Parks and open spaces, while supporting the National Bee Pollinator Plan¹² in promoting bee friendly habitats. Dún Laoghaire-Rathdown County Council Parks Section will be communicating in relation to these planned works via the DLR website www.dlrcoco.ie.



Fig 5: Hot Foam Machine

3. 2018 – Commitment to Change of Approach to Weed Control on Hard Surfaces

Because of the known risks to human health⁹ and the environment from the use of glyphosate-based herbicides, many European countries, such as Denmark, the Netherlands and Sweden, have eliminated or substantially reduced their use of dangerous herbicidal products in amenity areas, while others such as Italy and France are now making commitments to ban the use of the product outright by the end of 2020.

In 2017, 250kg of the active ingredient glyphosate was applied to roads and streets in Dún Laoghaire-Rathdown at a rate of approximately 0.06 kg/ha. By comparison, Irish agriculture applies an average of approximately 0.47kg/ha of pesticides annually.

The runoff of herbicide products from hard surfaces to watercourses can be 10-20 times greater than runoff from grassed or planted areas³. This means that the use of these products on hard surfaces, even though in smaller volumes, possibly poses an even greater risk to the environment than the use of

pesticide/herbicide products in agriculture, leading to pollution of groundwater, rivers, streams and bathing areas.

EC Directive 2009/128¹¹ requires that member states take measures to protect the aquatic environment and drinking water. These measures should include reducing as far as possible or eliminating pesticide/herbicide application along roads and on surfaces with a high risk of runoff into surface-water sewers, and the development of integrated weed control plans which include addressing the need to design out weed control through appropriate pavement design, managing expectations, prioritisation of problem areas, and the development of appropriate treatment programmes including review and regular revision.

From 2018, DLR Cleansing Section proposes to adopt a best practice approach to weed control in accordance with EC Directive 2009/128. This will commence with a pilot project in Summer 2018 which will involve a full-scale reassessment of our approach to weed control on hard surfaces around the county with a view to developing a range of optimum, environmentally-friendly, location-specific solutions for weed control.

The outcome of the project will be the development of an integrated weed control plan for hard surfaces in DLR. As part of the best practice approach we are undertaking, and given the known risks to the environment and human health posed by the use of glyphosate-based herbicides when applied to hard surfaces, DLR Cleansing Section aims to eliminate the use of glyphosate-based herbicides to control weed growth on hard surfaces commencing Summer 2018 with the aim of developing a fully integrated glyphosate-free hard surface weed control programme by 2019.

4. Pesticide-Free Weed Control in Dún Laoghaire-Rathdown County Council

The following approach is being adopted in the 2018 weed control programme:

1. **Assess Weed Growth Levels Around the County** – This will require that weed control will not commence in 2018 until later than usual in the summer. Members of the public, tidy towns judges, and other relevant stakeholders will be made aware of this and asked to expect that there will be a higher than usual level of weed growth in the county this summer. It is anticipated that weed removal will commence in June of this year. A database of weed growth levels will be set up to record information.
2. **Develop a 'Weediness' Scale** – This is in accordance with the Department of Environment, Food and Rural Affairs (DEFRA) Best Practice Guidelines developed for the UK². All roads in the county will be assigned a weed growth rating on the scale, with action initially being taken to control weeds in those areas being rated with a high level of weediness.
3. **Target Priority Areas** – As we work through priority areas removing weeds, primarily using manual methods, we will continue to assess regrowth levels around the county. It is planned that Road Sweeping will be carried out immediately after weed removal on roads and footpaths, to ensure regrowth is minimised. The initial areas to be treated will be areas where weed growth is causing an obstruction or is extremely unsightly. Also, we will focus on the village areas commencing with Cabinteely Village, Dalkey Town, and other districts involved in the Tidy Towns and Tidy Districts competitions.
4. **Leave Designated Areas Untreated** – Depending on the weed growth level noted in Stage 1 above, certain roads and footpaths will be left without any treatment or control.
5. **Co-ordination with Residents Groups & the Public** – If residents groups and members of the public wish to participate in the project, we request

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that they liaise with DLR Cleansing Section staff in relation to weed growth levels prior to and post weed removal. We request that no weed control product is used in public areas without the express permission and prior approval of DLR Cleansing Section. We also ask that any weed removal in public areas is reported to the Cleansing Section so that we can have accurate records in relation to weed control requirements in all areas around the county.

6. **Communication** – Once the project is underway, DLR Cleansing Section will communicate in relation to planned works via the DLR website: www.dlrcoco.ie. A leaflet will be prepared and available through the Civic Hub and on the DLR website explaining the aims and approach of the project.
7. **Development of an Integrated Weed Control Plan** – The pilot project will allow for a fully costed integrated weed control plan to be commenced in 2019, allowing for a number of cost options to be provided based on the level of weed control desired.

5. How Residents Groups and the Public Can Assist

The best way that members of the public can help with the project is to understand that a greater level of weed growth around the county will now be considered acceptable. This is in accordance with our biodiversity plan. As the project progresses, we will be forming a weed growth assessment scale and will communicate this to the public.

Members of the public and residents associations can also assist by reporting to DLR in relation to weed growth in their area. Requests and reports on weed control can be sent to DLR Cleansing Section from June 11th via the new Civic Hub. The DLR Civic Hub in County Hall, Dún Laoghaire will be a fully accessible, high quality, bright and effective area for DLR customers to engage with the Council in a new and dynamic way - by phone, email, in person, website, or social media. The email address for the Civic Hub is info@dlrcoco.ie.

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- If members of the public wish to support the project, they may assist in the assessment phase of the project by tweeting or emailing pictures and reports on weed growth on their street.
- A comments section will be made available on the Consultation Hub of the DLR website.
- Where members of the public and residents groups wish to assist with weed removal, it is requested that contact be made with the Cleansing Section via the Civic Hub. A leaflet will be prepared outlining the procedure and assistance will be provided with the collection of removed of weeds where required.

6. Project Contacts – Dún Laoghaire-Rathdown County Council

Project Leader:	Fiona Craven, Senior Executive Engineer, Cleansing & Beaches Section
Project Administrator:	Lynn Murtagh, Assistant Staff Officer, Cleansing & Beaches Section
Project Engineer:	Eoin Walsh, Assistant Engineer, Cleansing & Beaches Section
Project Foreman:	Colm Heffernan, Foreman, Cleansing & Beaches Section
Project Environmental Officer:	Dean Eaton, Environmental Awareness Officer, Environment Department
Contact Details:	info@dlrcoco.ie : Please include 'Weed Control on Hard Surfaces' in the subject line.

7. Additional Information & References

- 1) Image on Front Cover: Dandelion *Taraxacum Officinale*. Pencil and Watercolour. ©Yanny Petters 2010, Reprinted by Kind Permission
- 2) DEFRA Best Practice Guidance Notes for Integrated and non-chemical Amenity Hard Surface Weed Control, 215
<http://www.emr.ac.uk/wp-content/uploads/2015/03/BPWeeds2015web1.pdf>
- 3) Pesticides and Water Pollution
<https://www.safewater.org/fact-sheets-1/2017/1/23/pesticides>
- 4) Institute for European Environment Policy, Effective Policy Options: May 2016
https://ieep.eu/archive_uploads/2211/IEEP_PANUK2016_RSPB_pesticides_report.pdf
- 5) Status of Pesticides Application in Ireland, Research Paper
<http://researchrepository.ucd.ie/bitstream/handle/10197/4864/paper4.pdf?sequence=2>
- 6) National Action Plan for the Sustainable Use of Pesticides, 2013
<http://www.pcs.agriculture.gov.ie/media/pesticides/content/sud/National%20Action%20Plan%20for%20the%20sustainable%20use%20of%20pesticides.pdf>
- 7) A review of pesticide policies and regulations for urban amenity areas in seven European countries
https://www.wur.nl/upload_mm/6/f/f/7ce47184-4294-4fcd-af02-9c320603acaf_weedresearch48.pdf
- 8) Eurostat Pesticide Sales Figures 2014
[http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Pesticide_sales_by_major_groups,_2014_\(Tonnes\).png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Pesticide_sales_by_major_groups,_2014_(Tonnes).png)
- 9) Impact of Pesticides on Health
<http://www.pan-uk.org/health-effects-of-pesticides/>
- 10) Dún Laoghaire-Rathdown Biodiversity Plan
<http://www.dlrcoco.ie/en/heritage/biodiversity/biodiversity-plan>

- 11) Sustainable Use of Pesticides Directive
https://ec.europa.eu/food/plant/pesticides/sustainable_use_pesticides_en
- 12) All Ireland Pollinator Plan
<http://www.biodiversityireland.ie/projects/irish-pollinator-initiative/all-ireland-pollinator-plan/>

8. Legislative Background

Because of their potential toxicity, often even at very low levels, the application of pesticides has been strictly controlled by European Community legislation since 1991. Policy control measures in the EU are driven by the objectives of protecting human health and the environment: consumers, operator safety, protection of water quality and biodiversity are all important concerns.

The Sustainable Use of Pesticides Directive 2009/128/EC aims to achieve sustainable use of pesticides in the EU by reducing the risks and impacts of pesticide use on human health and the environment and promoting the use of Integrated Pest Management (IPM) and of alternative approaches or techniques, such as non-chemical alternatives to pesticides. Member States are required to draw up National Action Plans to implement the range of actions set out in the Directive.

Directive 2009/128/EC of the European Parliament and of the Council – Sustainable Use of Pesticides 21st October 2009

*Article 11 of the Directive- ‘**Specific Measures to Protect the Aquatic Environment and Drinking Water**’ states that:*

1. Member States shall ensure that appropriate measures to protect the aquatic environment and drinking water supplies from the impact of pesticides are adopted.

2. The measures provided in paragraph 1 shall include:

..

(d) reducing as far as possible or eliminating applications on or along roads, railway lines, very permeable surfaces or other infrastructure close to surface

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water or groundwater or on sealed surfaces with a high risk of run-off into surface water or sewage systems.