

Transport and Environment Committee

10.00am, Thursday, 9 August 2018

Progress in Implementing the Integrated Weed Control Programme

Item number	8.1
Report number	
Executive/routine	Routine
Wards	All
Council Commitments	

Executive Summary

Following consideration of an Integrated Weed Control Programme in October 2017, this report provides an update to Committee on progress in controlling weed growth across the city's streets, parks and other public open spaces.

It demonstrates that due to a winter "deep clean", a dry May and June, and the introduction of weed rippers and quad bikes to the treatment fleet, the Council has (as of June 2018) been far more effective in its weed control coverage than in previous years.

However, we will not be able to quantify the herbicide volume used in controlling weeds until later in the year. As of 25 July 2018 it totalled approximately 2800 litres.

Progress in Implementing the Integrated Weed Control Programme

1. Recommendations

- 1.1 That Committee notes this update on the management of weeds in streets, parks and other public spaces.

2. Background

- 2.1 Glyphosate is the active ingredient in most licensed herbicides, preventing plants from making proteins that are needed for growth. Although glyphosate binds tightly to soil it can persist until broken down by bacteria. Although glyphosate itself is low in toxicity, herbicide usually contains other toxic ingredients that aid absorption into plants. Potential symptoms of sustained exposure to herbicide include nasal, eye, or skin irritation. Pets may also be at risk if they touch or eat plants that have been recently treated.
- 2.2 Some studies suggest that glyphosate has carcinogenic potential, whilst others have associated glyphosate use with non-Hodgkin lymphoma and reproductive problems. However, in 2017 the European Chemicals Agency and the European Food Safety Authority both concluded that there is no evidence to link glyphosate to cancer in humans and that it should not be classified as a substance that causes mutation or disrupts reproduction. The European Commission subsequently granted a five year licence extension for the use of glyphosate across member states.
- 2.3 Nevertheless, member states are also advised to follow the rules in the EU's Sustainable Use Directive, including that they pay particular attention to the risks of herbicide application in "places such as public parks and gardens, sports and recreation grounds, school grounds and children's playgrounds, and in the close vicinity of healthcare facilities". The directive notes that risks from exposure to pesticides are relatively high in these areas and pesticide use should be minimised or prohibited.
- 2.4 Herbicide application by the Council is only carried out by officers with an NPTC Certificate of Competence PA1, PA2 & PA6. It is applied using CDA (Controlled Droplet Applicator) lances or via standard applicator fitted knapsacks and quad bikes. CDA lances significantly reduce the volume of glyphosate used by producing

- a controlled droplet which minimises the creation of very tiny droplets, which are prone to drift.
- 2.5 Glyphosate-based herbicides are most effective when applied in dry, warm, wind-free conditions. They are ineffective if applied in rain, when rainfall occurs within six hours of application, or when foliage is wet. Following application, it can take up to 2-3 weeks for weeds to die, a process that can take longer in cooler weather and for some perennial species.
 - 2.6 In 2016 the Council's used approximately 4560 litres of glyphosate-based herbicide. The volume during 2017 was 2175 litres, and that used (by end of July) in 2018 was approximately 2800 litres – due to greater coverage and more frequent application.
 - 2.7 At its meeting of 1 November 2016, Committee considered a range of alternatives to the use of glyphosate-based herbicides for the control of weeds, and decided to adopt a policy that (a) seeks to reduce the amount of glyphosate-based herbicide used by the authority to control weeds; (b) limits the use of chemical herbicides only where there is no effective or reasonable alternative; (c) uses the least harmful product and; (d) is applied in the safest way using the minimal amount of herbicide.
 - 2.8 At its meeting of 29 June 2017, Council asked for a report from the Transport & Environment Committee to review full integration of weed removal into the Waste and Cleansing function as part of proposed improvements to street cleaning.
 - 2.9 At its meeting of 5 October 2017, Committee approved the implementation of an Integrated Weed Control Programme for the control of weeds along roadsides, pavements, other hard surfaces, and in parks and other green spaces.

3. Main report

- 3.1 To control weeds in public spaces the Parks, Greenspace & Cemeteries service strims, mulches and removes weeds in parks and other green spaces, and applies herbicide to street weeds and harmful Invasive Non-Native Species (INNS). Weeds around some cemetery gravestones are also controlled using glyphosate, usually because of difficulties in strimming around graveside tributes and mementos, and because of the potential damage caused to headstones. Weeds alongside footpaths and lawn edges are removed using mechanical "weed rippers".
- 3.2 The Waste and Cleansing service removes dead weeds and detritus (the usual growth medium) in streets and other hard-surface locations as part of its cleansing operations. Street weeds that have not yet been treated by herbicide will also be removed manually or mechanically as part of street cleaning operations.
- 3.3 The Integrated Weed Control Programme presents a series of actions that will collectively enable the Council to reduce the amount of glyphosate-based herbicide it uses. Progress against each of those actions identified for introduction in 2018 is as follows:

- 3.4 **Identify and plot trees requiring weed control at their bases:** 59,536 trees on streets and within parks and cemeteries have been digitally mapped and will be included within the Confirm Connect dataset once this is operational. Trees within properties managed by Facilities Management and Housing have not yet been fully surveyed or mapped, nor have trees along former City Development land, notably cycleways. This is estimated to be a total of some 82,000 trees.
- 3.5 **Identify and plot shrub/flower beds requiring weed control:** All Council shrub and flower beds have been digitally mapped. The weeds in these beds are now part of a maintenance programme focussed on hand-weeding, mulching, barrier control and, where necessary, herbicide application. Many annual flower beds have been changed to perennial beds to reduce maintenance input requirements.
- 3.6 **Zone weed locations into treatment zones:** During summer 2017 two gardeners, supplemented by others on overtime and when weather permitted, were allocated to each Locality area to apply herbicide on foot. Approximately 80% of streets were treated at least once by the end of the growing season. An additional two gardeners treated Invasive Non-Native Species (predominantly Giant Hogweed and Japanese Knotweed) throughout the growing season. To reduce the amount of street-weed growth needing to be treated in 2018 a "deep clean" over the winter months was begun. By June 2018 some 633 of Edinburgh's estimated 5500 streets and roads had been manually or mechanically cleaned of detritus and residual weeds.
- 3.7 The 2018 herbicide application programme was delayed until mid-April due to cold wet weather in late March and early April. However, available resources were supplemented by the hire of six quad bikes fitted with spraying equipment in May. Nine gardeners and one street cleaner were trained to operate these, and they became operational on 18 June 2018.
- 3.8 Although it is too early to assess the effectiveness of the quad bikes, initial indications are that they are treating streets far faster than has been the case in recent years. The prolonged dry period during May and June has also significantly helped increase the rate of application, making it likely that we will be able to treat all streets at least once this year, and many should receive a follow-up treatment during July, August, and September, reducing the necessity for zoning.
- 3.9 As of 25 July 2018, all streets across the city had been treated at least once, with streets in some wards receiving a second treatment, as follows:

South East Locality

Ward 10 1 x Treatment

Ward 11 1 x Treatment + 50%

Ward 15 1 x Treatment + 20%

Ward 16 1 x Treatment + 20%

North East Locality

North West Locality

Ward 1 1 x Treatment

Ward 3 1 x Treatment

Ward 4 1 x Treatment + 65%

Ward 5 1 x Treatment

Ward 6 1 x Treatment

South West Locality

Ward 12 1 x Treatment

Ward 2 1 x Treatment

Ward 13 1 x Treatment

Ward 7 1 x Treatment + 20%

Ward 14 1 x Treatment + 20%

Ward 8 1 x Treatment

Ward 17 1 x Treatment + 15%

Ward 9 1 x Treatment

- 3.10 It is worth noting that recorded weed service requests and complaints from the public have declined since service Transformation. They totalled 483 in 2015; 565 in 2016; and 371 in 2017. This year the Council had received 123 weed-related service requests/complaints by the end of June; an indication that focussed activity on weed control is becoming increasingly effective.
- 3.11 **Confirm the operational roles of relevant Council services:** Place Management is confirmed as the service with responsibility for weed management, these responsibilities being led by, but not limited to, Parks, Greenspace & Cemeteries (herbicide application, green space weeds); Waste & Cleansing (detritus removal and mechanical/manual removal on hard surfaces) and; Roads (road, cycle and footpath repair and replacement).
- 3.12 **Clarify available budgets and determine the budgets required of each service to meet treatment needs:** 2018/19 Place Management budgets have been allocated for weed control measures. In addition to staffing costs, these include budgets for herbicide, vehicles, and machinery. The quad bikes have been leased for a five-month period to determine their relative effectiveness.
- 3.13 **Draft and communicate the Council's weed control policy:** A draft policy will be drafted and presented to committee for approval in the coming months.
- 3.14 **Review and assess alternative weed control treatments to maximise efficiency and environmental gains:** Following the extensive trialling of alternative treatments in 2016 (hot water, foam, acids, electrocution, heat, flame, mechanical etc) a number of mechanical "weed rippers" were put into operation in 2017. These have proven to be very good at controlling weed growth along footpath edges in parks and green spaces that were formerly maintained using herbicide. This year six quad bikes fitted with herbicide applicators have been put into trial operation.
- 3.15 **Investigate opportunities to procure some, or all, of the weed control programme under contract:** To date this has not been progressed as the combined efforts of Place Management services were felt to be sufficiently capable of meeting the city-wide operational challenges.

4. Measures of success

- 4.1 Successful development and implementation of the Integrated Weed Control Programme that sees satisfactory control of weeds and reduction in the use of glyphosate-based herbicide by the Council.

5. Financial impact

- 5.1 The control of weeds across Edinburgh using glyphosate-based herbicide currently costs the Council approximately £220,000 per year. This includes expenditure on machinery, chemicals, chemical applicators, training, and operator costs. As application is largely by operator-borne knapsack sprayers, CDA (Controlled Droplet Applicator) lances, and leased quad bikes, capital costs are minimal.

6. Risk, policy, compliance and governance impact

- 6.1 There is a risk that alternative approaches to the use of glyphosate-based herbicide will be less effective in controlling weed growth. Evidence from research and trials is used to reduce this risk.
- 6.2 Financial risk is being controlled by initially leasing new technologies to test their efficacy.

7. Equalities impact

- 7.1 Given recent research findings, a reduction in the use of Glyphosate-based herbicide may have a positive impact on both life and health. There are no identified infringements of rights or protected characteristics.

8. Sustainability impact

- 8.1 The reduction of glyphosate-based herbicides may lessen impact on local ecology. However, greater use of machinery to control weeds means that additional carbon fuels will be consumed.

9. Consultation and engagement

- 9.1 There has been no public consultation on the report recommendations.

10. Background reading/external references

- 10.1 The EU Sustainable Use Directive can be found at:
http://ec.europa.eu/food/plant/pesticides/sustainable_use_pesticides/index_en.htm
- 10.2 Best practice guidance for non-chemical weed control can be found at:
<http://www.emr.ac.uk/wp-content/uploads/2015/03/BPWeeds2015web1.pdf>

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11. Appendices

None