Weed control plays an important part in maintaining the UK’s road network. The establishment and growth of plants can exacerbate cracks in roads and pavements, causing the potential for damage to vehicles (from potholes) and trip hazards for pedestrians. Regular treatment restricts weed growth and ensure the quality of the road network—and associated pavements—does not deteriorate.

Although a range of weed control methods are available, glyphosate is chosen by most councils as the tool for weed management on the UK’s roads. Its broad-spectrum effectiveness and ease of application—via backpack spray—make it a cost-effective choice for councils facing budgetary challenges. Indeed, a review of weed control contracts awarded by local councils between July 2015 and August 2016 indicates that the average cost of treating one kilometre of road is £60 per year. Extrapolating this cost across the UK results in an estimated cost to councils of £23 million for glyphosate-based weed control on the UK’s minor and ‘principal’ A roads.

The failure to renew glyphosate’s license—equivalent to a total ban—would require the development of alternative weed control strategies given the importance of weed management for the UK’s road network. To understand what strategies would be employed and the potential cost implications we conducted a series of interviews with weed control contractors and performed a review of the literature around councils’ commissioning of alternative weed control measures.

One report—of a trial for glyphosate-free weed control in the Cotham and Ashley wards in Bristol—was of particular relevance for this study. The Cotham trial explored two different alternative treatments to glyphosate. The first, a thermal steam (foam) treatment offered a non-chemical option for weed control, however this was rejected on two grounds. First, the foam treatment was ten-times more expensive than glyphosate; the report estimated a cost of £7,349.50 for the trial, compared to

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1 Contracts were accessed through the tender portal www.contractsfinder.service.gov.uk
2 The Department for Transport Statistics divides the UK’s road network into four categories: Motorways, Trunk A Roads, Principal A Roads, and minor roads. Given information on the cost of weed control programmes was only available at a local council level, this study does not consider motorways or trunk A roads, as weed control on these roads falls under the remit of Highways England, Transport Scotland and the Welsh Assembly. Consequently, our analysis is limited to the rest of the road network, which, according to the Department for Transport Statistics encompasses 383,572km of roads.
£742.22 for the equivalent glyphosate treatment. Secondly, the equipment required to produce the foam raised concerns over the increased fuel use and resulting environmental impact.

The other alternative treatment considered was acetic acid. Acetic acid is applied in a similar manner to glyphosate, however, it also carries a greater cost due to the volumes of the chemical required for treatment equivalent to glyphosate. The trial report states that some 6,000 litres of acetic acid would be required to match the treatment delivered by 200 litres of glyphosate. Consequently, the cost of the acetic acid treatment is estimated at £2,680.60, compared to £742.22 for glyphosate.

Although the progress report does not provide any final conclusions over effectiveness—and neither does our study aim to—it does enable us to explore the potential cost implications if glyphosate was banned. The scale of cost increases over glyphosate-based weed control—a factor increase of 9.90 for the foam treatment (£7,349.50 divided by £742.22) and 3.61 for acetic acid (£2,680.60 divided by £742.22)—were corroborated during our interviews with weed control contractors. Therefore, by applying these factor increases to the estimated cost of weed control using glyphosate on the UK’s minor and ‘principal’ A roads we can estimate the potential increase in costs that councils could face after a ban.

Consequently, we estimate that treating these roads with acetic acid would cost £83.2 million annually, £60.1 million more than currently spent on glyphosate-based treatments. The cost implications of using the non-chemical, foam alternative are even larger: treating the 383,572km of minor and ‘principal’ A roads across the UK would cost an estimated £227.9 million, £204.9 million more each year than treatments using glyphosate. These figures also exclude any associated capital purchases or leasing agreements councils may be required to make to deliver these treatments.

The increased cost for weed control would present councils with a difficult decision: either to reduce weed control, or to increase council taxes to generate additional funds. Choosing to reduce treatment would mean councils risk an increase in the deterioration of road surfaces and subsequently costly repairs. If councils pursue the former option, we estimate that a nationwide adoption of treatments based on acetic acid would add £2.29 to the council tax bills of the 27 million households in the UK.4 A foam-based treatment would increase council taxes for each household by £7.80, compared to current funding for glyphosate-based weed control.

It is clear that glyphosate-based weed treatments provide councils with a cost-effective means of keeping the UK’s roads free from weeds. However, while there are alternative options councils could employ in the event of a glyphosate ban, these come with significant additional cost. Given the budgetary challenges they face, councils would be left with the option of either scaling back weed control measures (and risk substantial repair bills in future), increasing council taxes, or imposing cuts to their services.

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4 The Office for National Statistics reports that there were 27,089,900 households in the UK in 2016.
27 October 2017

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