

Will we miss glyphosate?

In one and a half year's time Dutch municipalities will be banned from using agricultural herbicides such as glyphosate to rid pavements and industrial estates of weeds. Does the Netherlands stand to gain from this ban?

TEXT RENÉ DIDDE ILLUSTRATION IEN VAN LAANEN

The lower house of the Dutch parliament agreed this spring to a ban on the use of chemical weed killers anywhere except on farms. This means that from 1 November 2015, the popular weed killer glyphosate – known by the brand name Round Up – will be taboo for municipal councils. The herbicide has been sprayed onto pavements and squares for many years to control unwanted vegetation. In fact the use of all agricultural herbicides on paved areas will be a thing of the past: even substances based on acetic acid or organic fatty acids are included in the ban. The new ruling covers industrial estates, sports fields, campsites and cemeteries, although it only goes into effect there from November 2017. Industrial estates account for almost half of the glyphosate used outside agriculture in the Netherlands. One fifth of the total amount is sprayed by town councils on pavements and sports grounds. Parliament would like to ban the use of glyphosate by a far bigger group of users, namely the private individuals who use almost one third of the total to keep their

doorsteps and terraces weed-free. This household use will indeed be banned but banning sales to private individuals is apparently legally impossible. So the public will have to be persuaded to stop using glyphosates through information provided at garden centres. 'Protecting human health against avoidable use of chemical substances,' is how secretary of state Wilma Mansveld justifies the ban. 'A second priority is improving the quality of surface water. Both are vitally important,' adds Mansveld. The phrase 'Avoidable use' refers to the availability of alternatives: a range of non-chemical methods of clearing weeds which have come into fashion among gardeners in recent years. On the streets machines are now seen blasting off weeds or attacking them with steel brushes, hot water or steam. Half the pavements in the Netherlands are already kept weed-free without resorting to chemicals.

FLAG OUT

When the ban was announced, RIWA, the branch organization for drinking water companies that depend on river water, hung the

flag out. 'Now the water quality in the Maas will improve at last,' says Harry Römgens, director of RIWA-Maas. 'Glyphosate runs off pavements through the sewers and into the rivers. There we regularly measure amounts exceeding the European norms.'

By following the Sustainable Weed Control on Paved Areas (DOB) protocol drawn up with the help of Wageningen UR, and spraying more selectively – not just before a rain shower for example – such excesses have been reduced, confirms Römgens. 'But not enough. In 2012 we found excessive levels of glyphosate in 20 out of 89 samples of water from the Maas. Norm is norm, full stop. We've got to stick to them.'

NO BETTER OFF

Water is the winner here, asserts Corné Kempenaar, researcher at Wageningen UR. 'But the air quality, the climate and the general public are definitely not better off with a ban on glyphosate and the other substances.' Kempenaar, who has been doing research on sustainable methods of dealing with weeds and helped develop the DOB >



protocol, considers glyphosate a 'safe and cost-effective substance'.

The environmental score of non-chemical weed-killing is none too good, says Kempenaar. 'Hot air blasting, steaming and hot water consume a lot of energy, cause a lot of air pollution and therefore contribute to climate change. This has become clear from a life cycle analysis by the University of Amsterdam (UvA).

But this Amsterdam study is not without its critics. According to the University of Leiden, it failed to include a separate risk analysis for the role of glyphosate in local water systems. The life cycle analysis focuses mainly on global background concentrations in the environment.

Corné Kempenaar does not think this would have changed the picture significantly.

'Anyone who claims that glyphosate is "super-toxic" for water ecosystems is wrong. Toxicological reports are quite clear on this point,' says the researcher. 'It is true that EU water norms are sometimes exceeded, al-

though measurements show a clear drop in that since the introduction of the DOB. And those excesses can be brought down further by, for example, not using glyphosate within a radius of 10 kilometres upstream from intake points for drinking water. For the sake of clarity, the EU's drinking water is based on the principle 'there shouldn't be any' rather than on toxicological risks,' says Kempenaar.

SHEDLOADS OF REPORTS

After 20 years of research, the market deserves some clarity, thinks Bert van Loon, chair of the branch of the foundation for non-chemical weed control NCO. 'I have read shedloads of reports, but people keep on comparing apples with pears. The discussion on water quality gets mixed up with the discussion on CO₂ production,' says Van Loon. His organization, which defends the interests of blasting and steaming companies, took part in the preparatory discussions for the life cycle analysis by the UvA in 2012.

'We didn't see any added value in that study,' says Van Loon. Non-chemical techniques are difficult to compare, in his view. 'No two techniques are alike. Each one has its particular set of effects.' He therefore thinks the best idea is a simple ban. 'By doing this Secretary of State Wilma Mansveld stimulates innovation and knowledge transfer. In the past few years we have already seen an improvement in techniques and knowledge about non-chemical weed control. For every problem there is a chemical-free solution which doesn't require regulations or monitoring,' says Van Loon. 'So the balance just works out better for society.'

FOOT-DRAGGING

Unlike Van Loon, Kempenaar thinks it is perfectly possible to make a good environmental analysis for all the options for weed control, and the possible combinations of them. 'There are formulas with which you can sort out which part of a machine should be put down under sweeping, under litter collection and under weed control. It was simply a case of foot-dragging about getting together to figure it out.'



PHOTO GUY ACKERMAN

CORNÉ KEMPENAAR,

researcher at Plant Research International, part of Wageningen UR

'Anyone claiming that glyphosate is "super-toxic" for ecosystems is wrong'

Wilco Boender shares this view. He is commercial manager at Verhey Integrale Groenzorg, a company which has been working with both chemical and non-chemical weed control for years. 'We need bigger trailers to transport the hot water and hot air machines than we do for the quads used for glyphosate, and they also take more time to load and unload. In other words, it costs more energy and money per hour to run the machines.'

Boender has no doubt that all the Dutch municipalities will switch obediently to chemical-free weed control, but he is afraid the owners of business premises will switch to small gardening companies which will go on using glyphosate illegally. 'Many owners of premises will balk at the cost increase of about 20 percent for chemical-free weed control, especially in these hard times. You can always find a small gardening company which can get hold of a barrel of glyphosate through an uncle who is a farmer. Anyway, it



PHOTO MARCEL VAN DEN BERGH

HARRY RÖMGENS,
director of RIWA-Maas

'The water quality in the Maas will improve at last'

‘Banning sales to individuals is legally impossible’



PHOTO HARMEN DE JONG

WILCO BOENDER,
commercial manager at Verhey Integrale Groenzorg

‘Glyphosate is quite simply a good and environmentally friendly substance, and the ban is nonsense’



PHOTO NCO

BERT VAN LOON,
branch chair of non-chemical weed control foundation NCO

‘For every problem there is a chemical-free solution which doesn’t require regulations or monitoring’

will still be on sale at garden centres.. We’ll be faced with unfair competition and illegal practices.’

EMOTIONS RUN HIGH

Boender thinks when it comes to weighing up the pros and cons of glyphosate, the Dutch government has lost its sense of proportion. ‘Scientific facts are cast in a bad light by the government. Politicians are talking about ‘strong poison’. Yet river water is much cleaner now than 20 years ago. ‘Glyphosate is quite simply a good and environmentally substance, and the ban is nonsense.’

Although he has a different take on the subject to Boender, Römgen from the drinking water companies agrees that emotions have brought the discussion to an impasse. ‘It often turned into an opinion debate between believers.’

According to Corné Kempenaar, it is almost impossible to make good environmental analyses in the Netherlands. ‘Interest groups

dominate in supervisory committees and try to influence the results.’ In his view one factor is that glyphosate gets framed as a chemical produced by multinational Monsanto.

‘That company delivers glyphosate to farmers in the US and South America, and at the same time sells them genetically modified soya and maize seed that has been made resistant to glyphosate. Many people are against this. When these kinds of emotions are in play, it is a continuous search for a way forward for scientists at Wageningen University.’

Concerned members of the public will be happy with the ban, while others will carry on using chemical weed-killers on their patios even after they become illegal. Wilco Boender does not have much faith in the idea of information being provided through garden centres. ‘I can’t see a Saturday girl or boy educating people about chemical-free weed control.’ ■

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