# HERBICIDE-FREE WEED CONTROL. REDEENED

weedingtech

# HERBICIDE-FREE WEED CONTROL. REDEFINED.

"At Weedingtech we care passionately about the world we live in. It's a beautiful place and the only home we have. We believe in doing our bit to protect it.

"That's why we developed Foamstream: the world's leading herbicide-free weed control technology - so we can make the reduction of herbicide use and the protection of our planet a reality.

"Herbicide legislation, along with public opinion, is changing. More than ever, people want to reduce herbicide use where possible. In fact, we believe that herbicides will be banned in many, if not all public places in the near future. We recognise this will prompt organisations into having to make a change. We developed Foamstream to help those organisations, many of whom we are already proud to call customers, to navigate that change by ensuring there's a herbicide-free alternative that works just as well for them. We understand that making Foamstream effective alone isn't enough - that's why we've also ensured it's economically viable so we can help organisations adopt it more easily.

"Using Foamstream you can control unwanted vegetation in a cost-effective, efficient and safe way, whatever your environmental credentials and regardless of legislation. And you can do so much more with it now too - from chewing gum removal, to street cleaning, to power washing and general sanitisation jobs. Foamstream has become a highly versatile green and urban space management system.

"We'd love to help you get involved. If you do, we'll support you every step of the way. We'll do that by continuing to supply the best all-round herbicide-free weed control systems on the market, that can also be used for general green space and urban space sanitisation tasks too, while always ensuring that your needs remain at the heart of everything we do."

Leo de Montaignac CEO, Weedingtech



## WHAT IS FOAMSTREAM?

Foamstream is the leading herbicide-free solution for controlling unwanted vegetation including weeds, moss and algae. Its patented low-pressure process combines hot water and a biodegradable foam, made from natural plant oils and sugars, making it safe for use around people, animals and delicate environments. With our lance sets, it can also be used for chewing gum removal, power washing and general sanitisation jobs too, making it a highly effective, all-round, green space and urban management system.

Committed to ensuring that we deliver the safest, most environmentally friendly products we can to our customers, our foams have been cleared for use as an organic, non-toxic, safe product by the following bodies.



- + US EPA (Federal)
- + Health Canada (Canada)
- + CDPR (California)
- + Kemi (Sweden)
- + Department of Agriculture (Washington State)
- + Department of Environmental Protection (New York)
- + REACH (UK)
- + Biogrow (NZ)

We are currently going through approval processes in other countries too.

# HOW DOES IT WORK?

The active ingredient in the process is the heat in the hot water. The foam simply acts as an insulating blanket over the top of the hot water, ensuring heat is not lost to the atmosphere.

Using our industry-leading machinery, Foamstream is applied to vegetation at lowpressure and can be used in all weathers. Once it hits the vegetation and covers it, the foam creates a thermal blanket over the vegetation and the water.

## WHY IS IT SO EFFECTIVE?

Just like the roof on your house, the foam stops the heat from the hot water escaping to the atmosphere, trapping it and holding it directly on the plant for an extended period of time. This allows it to work in the most effective way possible.

The heat penetrates the leaf's waxy outer layer, travels down the stem, and in to the roots – killing or severely damaging the plant, causing it to die.

The longer a plant is kept in the kill zone (temperatures above 57°C) the more effective the heat will be at killing the plant. By providing a layer of insulation on top of the water, Foamstream allows the heat in the hot water to be held within the kill zone for longer than any other alternative thermal method.

## WHAT DOES THIS MEAN?

Foamstream provides the most effective way of killing vegetation, meaning fewer treatment cycles are needed per year compared to any other alternative thermal method of weed control. By needing fewer treatment cycles, less labour is needed over the course of the year, reducing overhead costs for customers.

In addition to killing the plant, Foamstream also sterilises surrounding seeds and spores that haven't yet germinated, helping reduce future weed growth.

By combining the most effective method, the fewest treatment cycles per year and the ability to sterilise seeds and spores, Foamstream offers customers the lowest cost of ownership and operating costs in the alternative herbicide-free space. As Foamstream can also be used for so much more than just weed control, the commercial case for using Foamstream over alternatives becomes highly attractive.

# WHO IS IT FOR?

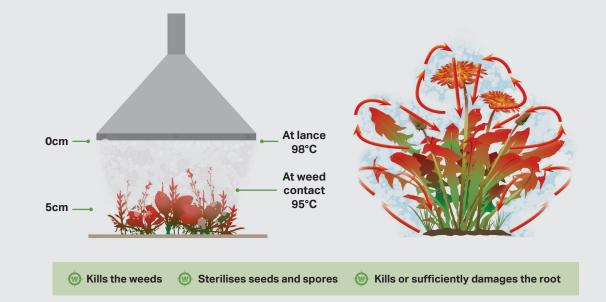
Foamstream is ideal for any company, contractor, council or organisation, looking to reduce the use of herbicide from their practices and replace it with the most costeffective and efficient alternative. It is also for any organisation that needs to carry out a wide range of jobs to manage green and urban spaces, including management of artificial surfaces.

It can be safely used in public spaces, on utility sites, or in any space which requires an eco-friendly method of treatment, and poses no threat to people, animals, the environment or the operator.

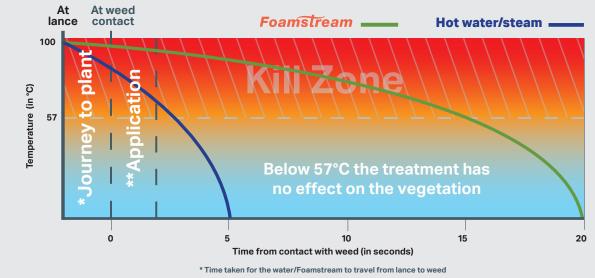


# Foamstream

## HOW FOAMSTREAM WORKS WHEN IT IS APPLIED TO THE PLANT

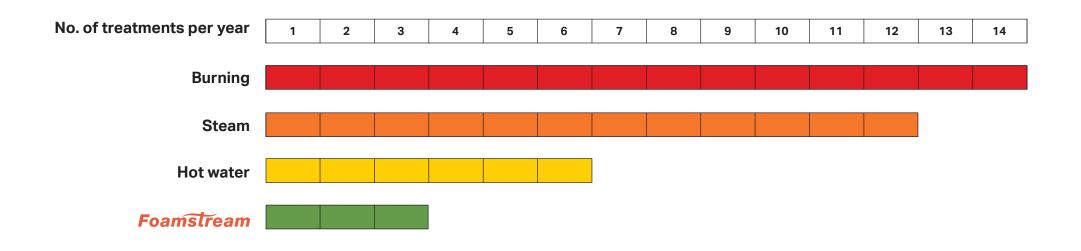


## FOAMSTREAM TYPICALLY MAINTAINS KILL ZONE TEMPERATURES FOR 6X LONGER THAN OTHER ALTERNATIVES



\*\* Time taken to cover the weed with the water/Foamstream

## **HERBICIDE-FREE TREATMENT CYCLES – FOAMSTREAM VS. THE ALTERNATIVES**





# By investing in our technology, you will gain the following benefits:

## 1. LOWEST TOTAL COST OF OWNERSHIP OF HERBICIDE-FREE ALTERNATIVES

#### Why?

- As the most efficient technology in the market, Foamstream ensures you need fewer treatment cycles than any other method in the herbicide-free space.
- Foamstream reduces regrowth over time by sterilising seeds and spores.
- Machine multifunctionality means costs are spread across many areas; from treating unwanted vegetation to all aspects of street sanitisation, including gum removal and power washing.

2. MANUAL LABOUR COST SAVINGS VS. TRADITIONAL CONTROL METHODS

#### Why?

- Foamstream can be used in all weathers and on all surfaces allowing effective planning and allocation of labour resources avoiding costly downtime.
- Foamstream requires significantly fewer treatments per year than other traditional methods such as strimming.
- Foamstream eliminates the need for ongoing operator certification, full protective clothing and specialist training, helping reduce the additional costs associated with traditional methods of control.

## **3.** SAFE FOR PEOPLE (INCLUDING OPERATORS), ANIMALS AND THE ENVIRONMENT

#### Why?

- Foamstream is an environmentally friendly solution meaning it can be used anywhere without restriction.
- Our Foamstream consumable is a blend of biodegradable natural plant oils and sugars which is why it is safe to use around people, animals, delicate ecosystems and waterways.
- Foamstream eliminates any associated risks which come with chemical use or manual weeding practices such as strimming.

## 4. A COMMITTED, STABLE SUPPLIER FOCUSED ON YOU

## **5. PROVIDES A SAFE, EFFECTIVE AND VIABLE SOLUTION TO SOLVE YOUR ORGANISATION'S CHALLENGES**

#### Why?

 With constantly evolving legislation and mounting public pressure, we solve your challenges as you adapt and move away from traditional methods of managing green and urban spaces. We do this by providing the most cost-effective, efficient and environmentally friendly solution to vegetation control and sanitisation tasks including street cleaning, gum removal and power washing.



#### Why?

- Financial stability from secure funding means Weedingtech will be here for the long term, to help you now, and in the future.
- We build long-term relationships with our customers by ensuring we are always there to support them. Our customers are at the heart of everything we do.
- Despite operating in a relatively new market, Weedingtech has led the herbicide-free sector with integrity since its inception. It has become the trusted supplier to a global network of users, who substantiate its efficacy and endorse its technology.

To stay true to our customers and deliver on our promise to them, our business is underpinned by four key pillars – Innovate, Manufacture, Supply and Support – with the customer at the very core of them all.

# **INNOVATE**

Innovation underpins everything we do. Our world-class in-house research and development team constantly push boundaries. This means we stay ahead of our competitors ensuring our technology provides our customers with the best functionality possible, whatever sector they operate in.

Whether pioneering industry-leading technology or moving towards cleaner fuel

sources, at Weedingtech we look to provide our customers with the best possible value from their machinery. Incorporating innovative technology such as the Internet of things allows us to provide valuable data for our customers about their machinery and operations. We strive to make buying decisions easier by engineering industry-leading technology and optimal performance - delivering unrivalled results every time.

### Innovation comes under three core areas:



## **SECTOR INNOVATION**

Committed to providing technology to customers across more than just the municipal and utility sectors, we constantly work towards our next innovation. Agriculture is a key focus for the future. As the legislative bans evolve year on year, we understand the need to provide the best solutions across parts of the agricultural space, such as horticulture and viticulture.



## **DATA INNOVATION**

The Internet of things (IoT), a core feature throughout our product range, provides our customers with next-level insight in to their machines and operational activity. Unlocking this data empowers customers to accurately measure their cost of operations and minimise downtime, by increasing operational efficiency. In addition, the IoT provides pre-emptive information on system maintenance and operations, ensuring customers get maximum value from their assets.



## **ENVIRONMENTAL INNOVATION**

Committed to driving down the environmental impact of our technology wherever possible, we focus on incorporating leading innovations in our machinery to help move away from fossil fuels and towards more sustainable energy sources.



# MANUFACTURE

As manufacturers, it's critical that we listen to our customers to design and build products that fit their needs and solve their challenges. By doing so, we deliver on our customer promise; to provide the most viable, costeffective solution for vegetation control and sanitisation tasks in the market. We manufacture industry-leading technology by sourcing the highest quality componentry and partnering with leading manufacturers who adhere to the highest standards and quality controls. We manufacture across numerous sites in numerous countries. ensuring we have a robust supply chain that will always deliver the right part, to the right place, at the right time.

**Supply chain:** By partnering with the best manufacturers – we ensure we deliver consistently high-quality end products, guaranteeing our customers gain the best results from their machines over the product's lifetime.

Our global supply chain provides us with scalable flexibility to meet increasing customer demands and delivers full process traceability as our customer base increases around the world.



# **SUPPLY**

Our global network of clients and distributors speaks volumes about our technology. Whether looking for a solution to your weed control and street cleaning challenges in New Zealand or New York, we have an excellent partner network of tier-one Toro, John Deere and Promodis distributors, amongst others around

the world, who can help you make the right decision based on your needs. We understand that a world-class product must be backed up with deep understanding and experience of both the sector and the technology, along with a shared desire to supply industry-leading machinery and solve customers' challenges.

We appreciate that budget is a big part of any decision-making process. To make our products and our partners as accessible as possible, we have a range of finance packages to help bring you our leading technology in the most affordable way.

# **SUPPORT**

Exceptional support and service are two key attributes which set companies apart from their competitors. Partnering with tier-one distributors ensures that our customers always receive the very best in service and aftercare support and are kept at the core of our business. We only partner with distributors we know will deliver our promise of responsive support at critical times, ensuring you don't waste time or money waiting for problems to be fixed, or parts to be supplied. As an end client you can expect the following support from our distribution partners:

- + Deep sector and product knowledge
- + Front line and on-the-road support
- + Tier-one training
- + Stock and rapid dispatch of high demand parts
- + Constant drive to listen to and meet your needs



At Weedingtech we take special care to ensure you receive world-class aftersales support either directly from us or through our global network of distribution partners.



First line support - provided via telephone.



Territory specific service engineers dedicated to you and your machinery.



Regular training and world-class training materials – on-site training and a portfolio of online videos and manuals to guide you through using our technology.



Second line support – an engineer will be sent to you on-site if the situation can't be resolved via the telephone.



Superior service quality – all service engineers are electrical and mechanical experts in Weedingtech machinery.



12 months parts and labour warranty.

# WHO WE WORK WITH

We work with a diverse network of organisations around the world, from tier-one distribution partners, through to utility companies, councils, contractors and private individuals.

Below is a selection of the companies we work with:





#### Will Wilson

Business Development - Cubex Ltd. Canada

"Foamstream fits perfectly into our new focus as a company and we are very much looking forward to getting the product into our customers' hands.

We see Foamstream being one of the flagship lines for Cubex in Western Canada, and we want to get the product to the point that it is the most widely used industry solution for unwanted vegetation control in our area."

#### Len Gregory

Co-Owner, Turf Star-Western. USA (West Coast)

"Turf Star-Western has great interest in offering environmentally benign solutions to grounds maintenance challenges. We believe that Weedingtech is at the leading edge of this herbicide-free movement offering a viable solution with their patented hot water and environmentally-friendly foam process, Foamstream."

#### Alfred Delloiacono

Chief Equipment Inc. USA (East Coast)

"NYC & NYS are extremely environmentally conscious and take great precautions towards protecting the parks, private & public schools, municipal areas and universities. Since representing Weedingtech here in NY, the reception has been enormous, and the potential endless. Foamstream is rapidly gaining popularity because of its herbicidefree approach to eliminating weeds, along with its additional functionality for sanitisation tasks such as street cleaning and gum removal. Being people and pet friendly as well as reducing costs, it's a true win-win yearround solution."

# **TESTIMONIALS**



Jordi Senmartí & Mireia Serra Directors - Vicreu-Senplag.

Spain

"Weedingtech is the best herbicide-free alternative to chemicals for green areas and has fewer annual treatment cycles than any other alternative method we have considered, including hot water. Using three applications a year, weed coverage has dramatically reduced in treated areas. Weedingtech are a brilliant partner with excellent aftersales support and we highly value their continuous R&D."

#### Terry Burns

Senior Contact Manager - idverde.

"Since using Foamstream we've cut down on all the health and safety issues of strimming and laborious hand weeding we've had to do previously. It's changed the way that we weed hard surfaces, soft surfaces and playgrounds in our borough and means we don't have to use herbicide. It's clean and easy to use and allows us to properly allocate labour which has helped save 75% of our labour time used for previous methods of weed control."

#### M. Lemire

France

"Foamstream is without doubt the most effective alternative method of weed control, killing 95% of weeds with its first application compared to 50-60% when using hot water."

Founder & Director, Siviero Davide & C. Sas. Italy

"Having been keen to find a green alternative to glyphosate we discovered Foamstream, which has delivered great success in terms of our image and the demands of the job .

"The results have been astonishing!

"Unlike chemical treatments, the effect was visible almost immediately and fewer treatments have been needed since due to dramatically reduced regrowth.

"Furthermore, being safe for all operators to use in any public area, Foamstream has been a huge advantage when allocating and arranging labour. This has saved time and money.

"We're very pleased with Weedingtech and plan to expand the fleet, satisfying more and more customer requests."

# OUR MACHINERY Foamstream

— М600 —

The Foamstream M600 is a smaller, more compact and more lightweight design than the M1200 – suitable to mount on a range of vehicles including a variety of UTVs. With a flow rate of seven litres per minute, the M600 is particularly wellsuited to smaller-scale jobs and harder to reach areas in inner city and rural environments. Powered by propane to help reduce noise and carbon emissions. It also includes additional functionality for sanitisation, street cleaning, gum removal and power washing.

#### Machine measurements

Height	1200 mm
Width	1000 mm
Width + integrated tank	1260 mm
Depth	800 mm
Depth + integrated tank	1110 mm
Weight dry unit	240 kg
Weight wet unit	270 kg
Generator	LPG powered 230V 50 Hz pure sine
	wave inverter generator
Boiler	48 kWh diesel powered, 230V 50 Hz
	with dual-stage pump, 200 bar 1/2"
	stainless steel coil.
Lance weight	2.5 kg
Standard hose length	30 m

#### **Operating measurements**

Internal operating temperature	98 °C
Operating temperature at lance	98 °C
Over-temperature cutout	120 °C
Pressure at start up	30 bar
Pressure at lance	12 bar
Pressure relief valve	35 bar
Flow rate at lance (per minute)	7 L
Operating noise level (1 m)	77 dB
Operating noise level (5 m)	68 dB

#### **Consumable measurements**

Propane tank capacity	Optional
Diesel tank capacity	35 L
Generator / pump oil	Refer to manufacturer's operational manual
Generator oil capacity	0.6 L
Pump oil capacity	0.3 L
Water tank capacity	270 L
Foam tank capacity	15 L
Foam jug – gross weight	25 kg
Foam capacity weight	25 kg
Foam storage temp. required	5-40 °C

#### Output per hour\*

Low vegetation density	420 m <sup>2</sup>
High vegetation density	280 m <sup>2</sup>

\*Output is dependent on the density, surface type and climate













The Foamstream M1200 was designed with high performance in mind, providing its owner with a lower cost of operation than the M600. It delivers a high flow rate of 12 litres per minute and faster speed of treatment than the M600 – it also comes with larger water capacity as standard. Particularly well suited to treating large open areas in urban and rural environments quickly and efficiently when treatment time is a key consideration. Mountable on a pick-up, flatbed truck or trailer. Includes additional functionality for sanitisation, street cleaning, gum removal and power washing.

#### Machine measurements

Height	1200 mm
Width	1206 mm
Depth	1250 mm
Depth + standard tank	2120 mm
Weight dry unit	326 kg
Weight wet unit	400 kg
Generator	Hatz 1B30 EPA Tier 4/CARB 230 V 60 Hz 6 kVA
Boiler	95 kWh diesel powered, 230V 50 Hz with double stage pump, 200 bar stainless steel coil (1/2").
Lance weight	2.5 kg
Standard hose length	30 m

#### **Operating measurements**

Internal operating temperature	98 °C
Operating temperature at lance	98 ℃
Over-temperature cutout	120 °C
Pressure at start up	30 bar
Pressure at lance	12 bar
Pressure relief valve	35 bar
Flow rate at lance (per minute)	12 L
Operating noise level (1 m)	95 dB
Operating noise level (5 m)	82 dB

#### **Consumable measurements**

Fuel tank capacity – diesel	52 L
Generator / pump oil	see operating user manual
Generator oil capacity	1.2 L
Pump oil capacity	0.3 L
Water tank capacity	780 L
Foam tank capacity	22 L
Foam jug gross weight	25 kg
Foam capacity weight	25 kg
Foam storage temp. required	5-40 °C

#### Output per hour\*

Low vegetation density	700 m <sup>2</sup>
High vegetation density	420 m <sup>2</sup>

\*Output is dependent on the density, surface type and climate













The L12 is our entry level plug and play Foamstream system. Operator driven, it relies on the operator to run it, rather than Weedingtech's proprietary Foamstream Software System (unlike the M600 & M1200).

With a rapid start-up time of 30-60 seconds the machine has full trigger functionality and is very easy to use. Its diesel and propane dual-fuel source powers it's 12 L per minute flow rate, matching that of our M1200 system. Its robust design is frame mounted with four fork-lift points and can be used on a variety of different vehicles, The L12 includes additional functionality for street cleaning and a new rinse-mode feature providing the operator with an option to use the machine with just water and no foam at high or low pressure.

#### Machine measurements

1070 mm
1040 mm
1250 mm
980 mm
1850 mm
280 kg
335 kg
1205 kg
Honda GX390, 230 V 60 Hz 6 kVA
EURO 5 equivalent
95 kWh diesel powered, 12 V 50 Hz
single stage, 200 bar steel coil (1/2")
90 %
2.5 kg
20 m

#### **Operating measurements**

Internal operating temperature	105 °C
Operating temperature at lance	98 °C
Over-temperature cutout	120 °C
Weed control lance pressure	1 bar (atmospheric)
Pressure at start up	30 bar
Standard cleaning lance pressure	85 bar
Pressure at lance	12 bar
Pressure relief valve	35 bar
Flow rate at lance (per minute)	12 L
Operating noise level (1 m)	< 85 dB
Operating noise level (5 m)	< 78 dB

#### **Consumable measurements**

Petrol tank capacity	6.1 L (5.1 hours)
Petrol consumption	1.2 L / hour
Diesel tank capacity	35 L (4.4 hours)
Diesel consumption	7.9 L / hour
Engine oil	10w30 mineral (1.1 L)
Pump oil	10w40 (0.3 L)
Foam can capacity	21.5 L
Foam can gross weight	25 kg
Foam consumption	2.4 L / hour (Foamstream V4)
	3.8 L / hour (Foamstream Plus)
Foam storage temp. required	5-40 °C

#### **Output per hour\***

Low vegetation density	700 m2
High vegetation density	420 m2
Time taken to treat 1 acre (hours)	<6

\*Coverage figures are based on treating vegetation growth on hard surfaces in an urban environment.











# WHICH MACHINE IS RIGHT FOR YOU? COMPARE OUR RANGE





Flow Rate	12 l/m	7 l/m	12 l/m
Foam Usage	2.4 l/h	2.1 l/h	2.4 l/h
Fuel Source	Diesel and petrol / propane	Diesel and propane / battery	Diesel
Additional Hose Length	+ 60 m	+ 30 m	+ 60 m
Battery Option	Ν	Y	Y
HMI Screen	Ν	Y	Y
FSS*	Ν	Y	Y
IoT Ready	Ν	Y	Y
Super High Pressure	Y	Ν	Ν
Rinse Mode*	Y	Ν	Ν
UTV Compatible	Y **	Y	Ν

# What is Foamstream Software System?

Weedingtech's Proprietary Foamstream Software System: (Incorporated into the M600 & M1200)

- + Automated temperature at lance
- + Level sensors for

Foamstream diesel and water

- + Automatic safety mode
- + Low engine oil level warning
- + Service notifications
- + Boiler diagnostics
- + Relay diagnostics
- + Flow switch diagnostics
- + Pressure switch diagnostics

\*\* L12 requires specialist UTVs.

Rinse Mode\* - machine option to use water without foam

FSS\* - Foamstream Software System

# FOAMS

The crucial part of our patented Foamstream process is our foams. These are made from natural plant oils and sugars. There are two foam blends available.

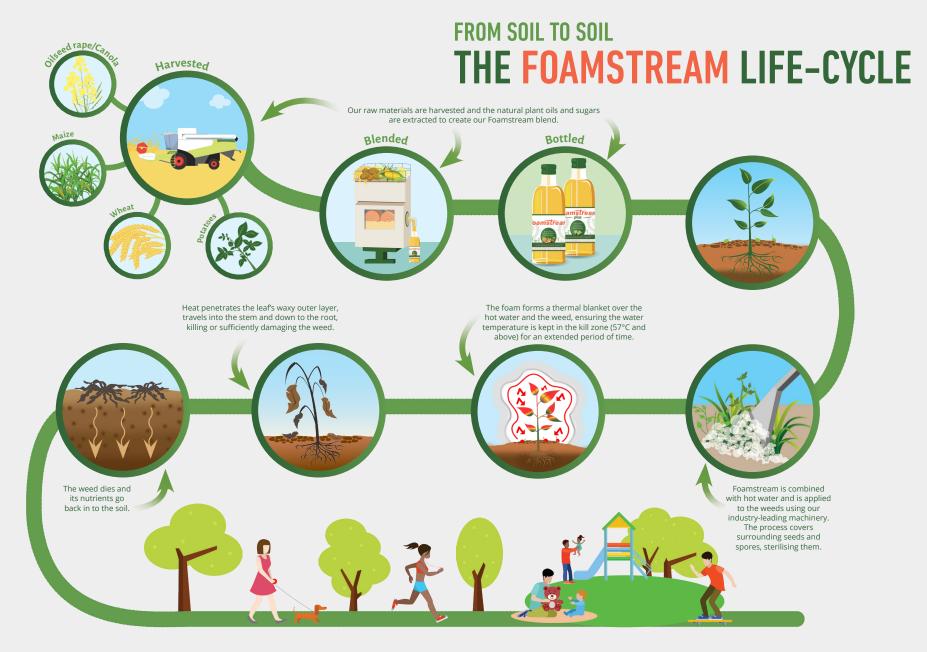


Our original foam blend made from a combination of ingredients including wheat, maize, coconut oil, rapeseed oil and potatoes.



Our olive oil based foam blend.





# $\textcircled{\begin{subarray}{c} \end{subarray}}$ A safe and sustainable solution for a greener world. $\textcircled{\begin{subarray}{c} \end{subarray}}$



With our customers as our core focus we continually strive to provide additional value from our technology. We ensure customers get the most from their machines by engineering a product range that helps with as many green and urban space management tasks as possible. Our Foamstream Clean lance range has been developed with that in mind. To ensure that your machines can be used beyond the traditional season for vegetation control, we've designed other lances that tackle all-manner of sanitisation tasks such as street cleaning, gum removal and power washing. Ergonomically designed with the end user in mind, they feature interchangeable, quick connect heads for simple, fast lance changeover.

# THE BENEFITS OF USING FOAMSTREAM AS A CLEANING SOLUTION:

Foamstream allows organisations and individuals to save additional costs on capital expenditure by providing one machine that can effortlessly transition from weed control to cleaning tasks and back again, wherever they are without the need for bringing in different machinery to carry out different job requirements.

With highly effective cleaning functionality, the ability to control temperature plus comparably low surface degradation when compared to other conventional high-pressure cleaning systems, Foamstream Clean provides the user with a unique and exceptional solution to urban cleaning.



In addition to our range of lances, we also have a range of optional extras that can be added to your machine.

To find out more about the full range of Weedingtech accessories, please get in touch.

This area has been treated by



A safe & effective, eco-friendly alternative to chemical herbicides with proven results!

Find out more about the future of weed control: www.turfcare.ca/foamstream



















To find out more about the leading technology for managing green and urban spaces, and how it can benefit your organisation, please get in touch.

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