



Calderdale Spraying

The background for our
council

Calderdale - Who and Where We Are

- Top of the Pennines between Leeds and Manchester
- Calderdale is situated in Yorkshire nestling in the south Pennines.
- It is an area of rich cultural heritage, impressive architecture, stunning landscapes and charming towns and villages.
- With excellent road and rail links and within easy reach of Leeds and Manchester, Calderdale is a great place to live, work and visit
- In house – Safer Cleaner Greener team
- Total staff – 110
- Equipment used – Kubota tractor and 2 quads, footsprayers with knapsacks



The Issues

- Bees
- Use of Glyphosate
- Pesticide lobbying campaigns
- Impact of sustainable use directive
- Best working practice
- What we do
- What more can we do
- Cost and resources
- Complaints



Current Drivers in Local Authority 2017

- ▶ Budgets and cost controls
- ▶ Priorities – environmental and operational
- ▶ Legislation
- ▶ Staff as resource experience training and competency issues
- ▶ Reactive versus Proactive what is your strategy?
- ▶ Standard setting
- ▶ Impacts – time taken
- ▶ Health and safety compliance – what happens if it goes wrong



Legislation

- ▶ **The Control of Substances Hazardous to Health Regulations 2002 (COSHH)**
- ▶ **The Sustainable Use Directive 2012**
- ▶ **Water Framework Directive 2012**
- ▶ **Local Environment Risk Assessment for Pesticides (LERAPs)**
- ▶ **The Ragwort Control Act 2004**
- ▶ **The Weeds Act 1959**
- ▶ **Pesticide Approvals**
- ▶ **Pesticides Act 1998**
- ▶ **Plant Protection Products Regulations (PPPR)**
- ▶ **Control of Pesticides (Amendment) Regulations 1997**
- ▶ **The Food and Environment Protection Act**
- ▶ **New legislation in 2014 controlling Japanese Knotweed provides more powers to local authorities**

What we use and why

- Glyphosate Roundup 480 and Trustee
- Tried and trusted NO HAZARD labels
- Cost effective and reliable



Methods of Action

Herbicide is translocated through the plant in the plant's phloem

Works well on perennials

Optimum time is after flowering

Glyphosate takes 5-7 days for first signs of effective application to be visible this will depend on variable factors such as daylight length and quality dose rate, weed profile and soil type

We need to have an effective trial over a 50-120 day period comparing different Glyphosate products and new chemical alternatives. This is an ongoing process during 2017

Glyphosate Cost Comparisons 2017

Supplier	Product	Per Litre	Cost of 800 Litres	Cost per Hectare	Amount Required per Hectare	Cost per Hectare	Cost per M2
Sherriff Amenity	5 litre Roundup Pro Vantage 480	£29.85 / 5 litre	£5373.00	£5.97	3.75	£22.3875	£0.00223875
Sherriff Amenity	5 litre Monsanto Amenity Glyphosate 360	£16.50 / 5 litre	£2970.00	£3.30	5 litres	£16.50	£0.00165
Sherriff Amenity	5 litre Rosate Green 360	£16.50 / 5 litre	£ 2970.00	£3.30	5litres	£16.50	£0.00165
Rigby Taylor	Trustee 450	£24.50 / 5 Litre	£4.410	£4.90	5 litres	£24.50	£0.00245
Rigby Taylor	Roundup Pro Vantage 480	£33.50 / 5 Litre	£6,030	£6.70	3.75 litres	£25.125	£0.0025125
No Mix	Roundup Pro Biactive 360	£27.70	£4384	£5.48	5 litres	£27.40	£0.00274

The Journey We Have Made

Year	Event	Outcome
1994	In House merger with Street Cleaning	Grounds and Highways spraying teams
2010	Formed Safer Cleaner Greener	
2015	WHO raises issues	Carcinogenic risk using Glyphosate
2015/2016	Freedom of Information requests Calderdale using Glyphosate	Council Scrutiny Reviews
2016	Internal Training Workshops	Internal Audits
2016	Reduction in Glyphosate usage	Complaints increase
2017	Remodelling of Safer Cleaner Greener	Alternatives to Glyphosate's strategy review and trialled
2017	Glyphosate EU approval for a further 10 year's	Awaiting Approval 31/12/2017

Why It Has Been Made

- Public concern
- Freedom of Information requests
- European review
- Brexit
- Environmental and Pollinator Campaigns

Calderdale Council Scrutiny Committee

Weed Control

We currently spray weeds using Glyphosate (commonly known as 'Round Up')

There have been some concerns nationally and internationally about the potential impacts of using Glyphosate but the Chemicals Regulation Directorate of Health and Safety Executive England are content for it to be used.

It is covered by COSHH (Control of Substances Hazardous to Health), has no aroma and dissipates quickly.

Alternatives include growth regulators, which are even more tightly regulated by COSHH, or brushing, strimming or steaming.

These last three options give some short term benefits but are not longer term solutions and not appropriate in all situations. Insecticides would represent a far greater risk than Glyphosate.

Chemical Audits

Element	Scope	Detail
Training and Certification	Evidence of training records All sprayers qualified?	Training Plan Are all sprayers active?
Spraying Records	Are they accurate?	Correct info for each product and application equipment
Chemical Stock Control	Records up to date and accurate	
Calibration Records	Completed by all staff	When and on what products?
Specification	Up to date?	Check and review
COSHH	In place Current Accessible	Health surveillance for spray operators
Health and Safety	Risk assessment Work safety policy Method statement	Review
Evidence of Chemical Decision Tree Process	Recorded evidence of process	Review
Chemical Container Disposal	How?	Are records kept?
NSTS	Recorded done?	Evidence Documentation

Health & Safety Compliance

What happens if it goes wrong?

- HSE have noticed that within a local authority over a 5 year cycle – managerial staff and officers moving on retiring and changing leading to no long term strategy and succession
- Opportunity to use legislation and Health & Safety as a tool for implementing good practice and new designs
- Additional cost
- Managerial time taken to sort
- Negative publicity
- Potential enforcement and closure

How to Calibrate and the Benefits

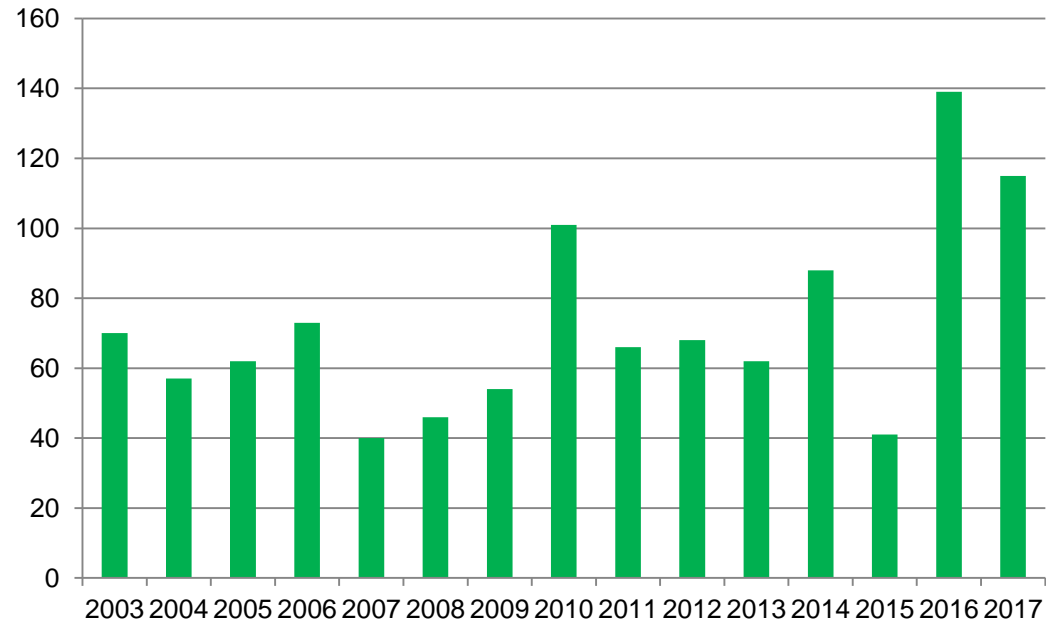
- Legislation compliance which links to sustainable use directive
- Record keeping product selection with different product options
- Effective use of material & equipment
- Start and finish outcomes
- Understanding product labels
- Understanding environment assessments



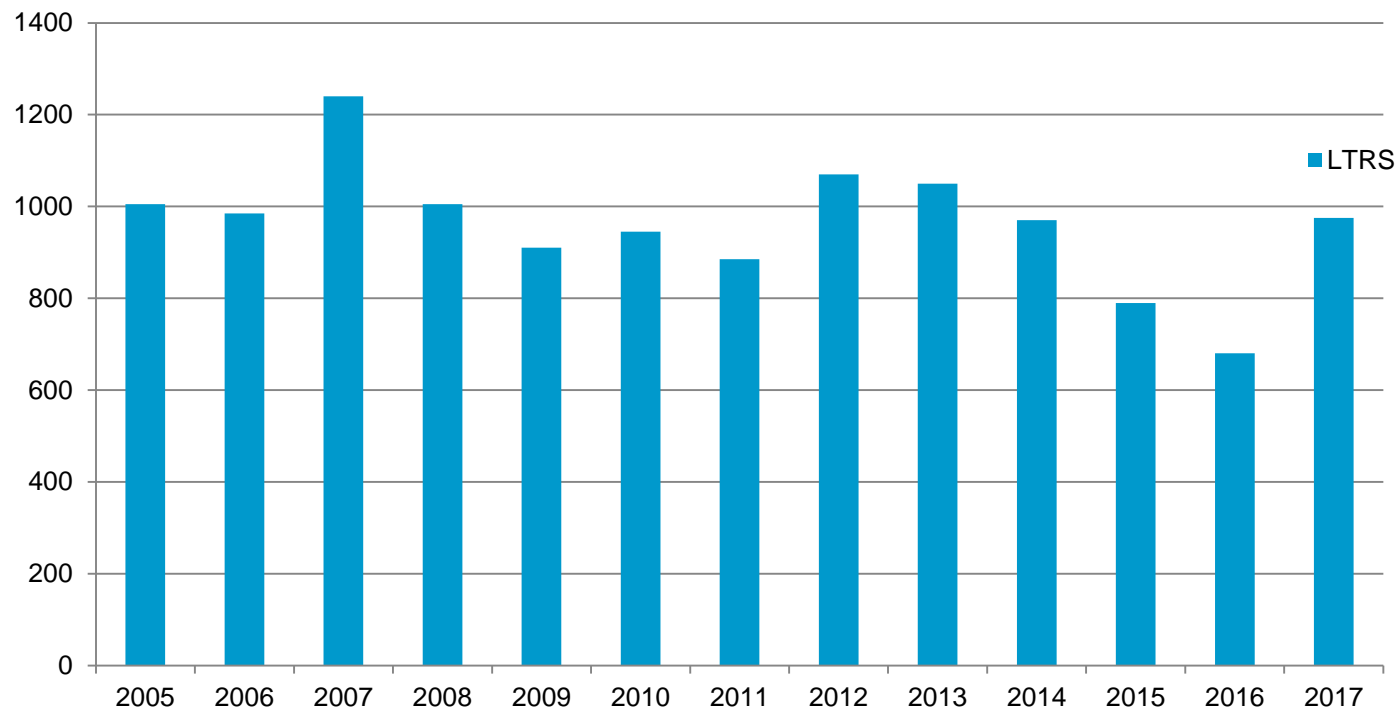
Complaints and Standard Setting

SPRAYING REQUESTS

YEAR	SR NOs.
2003	70
2004	57
2005	62
2006	73
2007	40
2008	46
2009	54
2010	101
2011	66
2012	68
2013	62
2014	88
2015	41
2016	139
2017	115



Glyphosate Usage in Calderdale 2005- 2017



The Alternative Path



Trials – Pelagonic Acid

- Naturally occurring structure (nanonoic acid)
- Fatty acid type – found in most plants and animals – hence good toxicity profile
- Contact action
- Application needs to be very even and good spray quality
- Good on small soft weeds
- Mature weeds better than acetic acid multiple applications
- Denatures plant cells leading to death of leaf
- Excellent moss control on hard surfaces tarmac, block paving etc.
- Application rate
 - 1.5 ml formulated product per square metre
 - Can be applied in low water volumes
 - Chikara/Glyphosate nozzle set works well compound – 9°C

Spraying Trial August 2017

Product	Application Rate	Rawson St North (site in continuous shade) Results	Score out of 10
Trustee Amenity	1.2 litres per hectare plus React Ultra	Very few weeds remaining	8
Trustee Amenity	1.2 litres per hectare plus Enforcer	Few weeds remaining	8
Trustee Amenity	1.2 litres per hectare plus Chikara	Some regrowth	7
Round Up Pro 480 Advantage	3.75 litres per hectare plus Guard	Some regrowth	7
Round Up Pro Advantage	2.25 litres per hectare plus Chikara (150 grams per hectare)	Weeds standing but dead. Little regrowth	7
Pistol Plus Trustee Amenity	1.2 litres per hectare	Little regrowth	5
Katoun Gold	22.5 litres per hectare	All moss totally killed, very little evidence of weed regrowth	9
Katoun Gold	22.5 litres per hectare plus Chikara	All moss totally killed, very little evidence of weed regrowth	9
Finale	4.5 litres per hectare	Regrowth and limited kill	6

Key Actions That Can Be Taken

- Reduce the amount of Glyphosate used in Calderdale by 10% each year for the next 5 years
 - in 2016 to 225 and 2021 to 150 litres
- Can this be done and is it achievable?
- Timings of spray need to be done at the most effective time in plant growth not when we have the available man power
- Different ways of working – longer hours at key stages of plant growth
- Predict plant growth
- Identify worst sites and complaints – target them
- Record keeping improvements
- Set in place measuring systems



What The Future Holds

Use less - restricted usage i.e. parks, schools and playground areas.

Work strictly to label instructions for application dosage per site per year depending on weed species.

Application of herbicide to target areas only – no blanket spraying.

Spot and timely spraying within plant growth cycles

Stewardship and best practice.

Good calibration and accurate dose application.

Hard surface application compliance.

Mistakes Made – Lessons Learned

- There are no quick fixes everything takes time
- Managing and influencing staff operators, public and councillors behaviour and expectations
- Accept there will be more complaints and a greener place where we live
- Target worst hot spots



Glyphosate Update

Next steps and comments from around Europe

Following the meeting of PAFF in July all member states were asked to submit in writing to the commission their views regarding the relicensing of Glyphosate active ingredient for a 10 year period.

To date only 7 countries have replied.

- In the June 2016 vote, many highly populated EU countries abstained, hence no qualified majority was obtained – i.e. 65% of the EU population voting in favour.
- France has indicated that they will vote against Glyphosate – this has caused the French farmers to threaten direct action.
- The French equivalent to NFU believe a ban would cost well over 1 billion euros for wheat producers.

Expect to see direct action very soon.

Glyphosate Update

- If no decision is made in December, some form of compromise will have to be reached:
 - Immediate revocation – product withdrawn from market and sent for disposal (this option is unlikely but possible)
 - Phased revocation – suppliers will have a defined sell in period and users will have a use by date, after which product will have to be destroyed
 - EU active substance extension – in effect carry on as we are but active up to end of December 2017 subject to EU making a decision
 - Each EU member will be able to handle the above at a local level

Glyphosate Update

- In the UK – CRD and the present Government are keen to see continuation of use for Glyphosate – they see this active ingredient as an important management tool for vegetation management in both agriculture and amenity.
- They will however, ask users to access methods to minimise the use of this active ingredient by using integrated weed management programmes.

The outcome for Glyphosate is still very much a political decision!

THANK YOU FOR LISTENING



- Any questions?