

Japanese Knotweed

History

Japanese Knotweed is a highly invasive plant and is recognised as the most invasive species of plant in Britain today. It originates from Asia and is a member of the Buckwheat family (Polygonaceae). Records reveal that it was introduced into the UK by a Victorian horticulturalist in 1824 as an ornamental plant and as a source of feed for cattle. Japanese Knotweed is now abundant throughout the whole of the UK.

Japanese Knotweed is a tough plant that, in the UK and Europe, only spreads via the movement of its' rhizomes. The rhizome, according to The Environment Agency Guidelines, can grow to a depth of 3m or more and up to 7m away from the plant, although recent research by the University Of Leeds suggests that 2m is more usual. The stem of the plant can reach 3m high in summer and is bamboo like in appearance. The leaves are 'heart shaped' and a lush green colour. It produces white flowers around September and October depending on its geographical location. In winter it completely dies back and may not be evident during winter months.

The problem

Japanese Knotweed is capable of growing 10cm per day and is found throughout the UK. It is highly invasive and capable of exposing weaknesses in buildings, forcing its way through foundations, concrete and tarmac. It has the capability to regenerate from rhizomes or any small part of the plant that is dropped such as a leaf axis, therefore there is a massive risk of spreading the plant via groundwork, disturbance or removing Knotweed from site. You need a noxious waste licence to remove it and it may only go to certain approved tips. Japanese



Knotweed can cause, a reduction in land value, damage to foundations and structures, damage to road surfaces, damage to walls and swamp out native vegetation. Property surveyors are particularly hot on Knotweed nowadays when inspecting property for mortgage valuations and it is common for mortgage companies to demand some form of indemnity from the purchaser before agreeing a mortgage. These indemnities often cost far more than the cost of controlling the knotweed and overstate the potential damage.

Japanese Knotweed and the Law

Japanese Knotweed is regulated by several pieces of legislation, the main being:
The Wildlife and Countryside Act (as amended) 1981
The Environmental Protection Act 1990
The Environmental Protection (Duty of Care) Regulations 1991

Third party litigation where damages may be sought for allowing Japanese Knotweed to spread onto other properties may be pursued against neighbours who fail to control it. This puts a duty of care on the landowner with Japanese Knotweed infestations to be proactive in the control and eradication of it. Planning permission will also generally be refused without an eradication programme in place for the infestation. A houseowner/landowner can now be issued with an ASBO if they fail to deal with Knotweed on their land!

All parts of the plant and any soil contaminated with the rhizome are classified as controlled waste and are required legally to be removed and disposed of by a licensed waste control operator.



Control Measures

Chemical Control

Knotweed can be successfully controlled by herbicide spraying. In most cases chemical control will be the cheapest and most effective method of eradicating knotweed. Although this may take repeated applications all parts of the plant and its rhizomes are killed. With all removal methods there is always the risk that some small parts of the plant will be missed and will re-grow. There are two main methods of application, overall spraying of the whole plant or stem injection. The main herbicide used is Glyphosate. Spraying should be carried out when the plant is actively growing during spring and summer. Glyphosate will also kill or damage other plants so care needs to be taken to avoid unwanted collateral damage. An adjuvant may be added to increase the efficacy of the herbicide uptake by breaking down the coating on the leaves when overall spraying. Care needs to be taken if the plant is near water and permission must be sought from the Environment Agency prior to application. Glyphosate is approved for use in or near water.



It is vital that if an infestation extends from your property onto your neighbour's land then their Knotweed is treated at the same time or it will quickly re infest your land.

Overall Spraying

This is where the entire leaf area is sprayed using a knapsack sprayer. As the herbicide acts by translocation i.e. absorbed by the green parts of the plant and taken down the stem into the roots, the smaller the plant is the more effective this will be. If not sprayed early in the season then consideration needs to be given to cutting down the growth to ground level and then spraying the shoots when they re-grow. As Knotweed rhizomes are extensive, follow up applications will be necessary. Follow up spraying is vital and should be continued until no more growth is observed. This may take one or two more visits.

Stem Injection

Unlike overall spraying which is applied to the surface of the leaves of the plant, stem injection targets the application of a controlled quantity of concentrated herbicide directly into the core of the plant. This direct targeting of the herbicide minimises any collateral damage to other plants. It is particularly useful when overall spraying is unsuitable due to the proximity of other non-target vegetation or where herbicide drift may be a problem. Tall, mature Knotweed stems can be cut down and a measured dose of concentrated herbicide is injected directly down into the cut stem using a hand-held spot applicator gun. Stem injection has no impact on any surrounding vegetation or wildlife. Stem injection is accepted and authorised by the E.A. to use on organic approved farms, without causing the loss of their organic status. Due to the labour intensiveness of stem injecting it is best used on smaller infestation or sites that carry environmental issues for example water courses and TPO's.

Dead stems left after this treatment are best left to dry and then burned on site if possible, otherwise you will require a licensed waste carrier to remove them.



Geo-textile Membranes

These are also known as root barriers, these are a physical barrier protecting a structure or site from Japanese Knotweed infestation. Although effective we strongly recommend treating the outbreak with herbicide first.

Dig and Dump

On occasions there is no other option on a development site apart from removing the Japanese Knotweed contaminated soil from site and disposing in an authorised landfill site. This may then be followed by using a geo-textile membrane. On some sites developers cannot wait 1-2 years for the Knotweed to be fully eradicated by herbicide and this is one solution.

On-site Burial

Where the site conditions allow an onsite burial strategy may be possible. This involves placing the Japanese Knotweed contaminated material at least 5m below the final ground level within a sealed membrane and capping it with clean material. This is usually only suitable for large development sites.

Land Remediation Relief – Tax Relief

Land owners and developers may now be able offset some of the cost of treating Knotweed under the Finance Bill 2009, which came into effect on April 1st 2009. The act allows tax deductions for the cost of treating land contaminated by Japanese Knotweed. As of 1st April 2009, companies liable for corporation tax can claim a 150% deduction on expenditure for removing Knotweed. Costs will still need to be paid upfront but then claim it back at their year-end. This is therefore not applicable to the ordinary house owner.