

Japanese Knotweed Information

What is Japanese Knotweed?

Japanese Knotweed was introduced to the UK as an ornamental plant during the 1800s. It is commonly found today along railway lines, riverbanks, roads and footpaths, in graveyards, on derelict sites or anywhere that it has been dumped, dropped or deposited.

What does it look like?

Japanese Knotweed forms dense clumps up to three meters in height. It has large, oval green leaves and a stem that is hollow and similar to bamboo. Usually in early spring (although it can be later in the year) the plant produces fleshy red tinged shoots. These can reach a height of 1.5 metres by May and three metres by June.

This plant can grow as much as 2 cms per day and will grow in any type of soil, no matter how poor. Towards the end of August clusters of cream flowers develop and then produce seeds that are sterile. The plant dies back between September and November.

Beneath any stand of Japanese Knotweed will exist an extensive underground root (rhizome) network that can extend several metres around and beneath depending on ground conditions. The spread of the plant is vegetative, ie all new plants are created by fragments of existing plants. A fragment of root as small as 0.8 grams can grow to form a new plant.

Why is it a problem?

Japanese Knotweed grows pretty much anywhere, from field edges to sand dunes, through asphalt and out of lamp-posts. The speed with which it has spread to all parts of the UK has been spectacular when you consider that it does not leave seeds behind but grows from pieces of the plant or root system that are cut and transported by people or by water.

Because Japanese Knotweed does not originate in the UK, it does not compete fairly with our native species and is able to spread unchecked. Once established, Japanese Knotweed shades out native plants by producing a dense canopy of leaves early in the growing season. Although Japanese Knotweed is not toxic to humans, animals or other plants, it offers a poor habitat for native insects, birds and mammals.

What are the environmental issues associated with Japanese Knotweed?

Under the Wildlife and Countryside Act 1981 / Wildlife (Northern Ireland) Order 1985 it is an offence 'to plant or otherwise encourage' the growth of Japanese Knotweed. This could include cutting the plant or roots and disturbing surrounding soil if not correctly managed.

Any Japanese Knotweed polluted soil or plant material that you discard, intend to discard or are

required to discard is likely to be classed as 'controlled waste' and should be accompanied by appropriate Waste Transfer documentation. Use the link below for further information.

Notify your waste haulier that the waste to be removed contains Japanese Knotweed. Not all landfill sites will be able to take material containing Japanese Knotweed.

You should also contact the landfill site several days before any material containing Japanese Knotweed is taken there to allow a suitable area to be prepared for its disposal.

Control of Japanese Knotweed

Although there are a number of options available for the treatment of Japanese Knotweed, the majority of these require a number of years in order to be effective. The two methods outlined below are the most effective in the time scales generally required by the construction industry.

1. Spraying with Herbicide

Spraying the plant with an appropriate herbicide is the most effective option available; however it can take several years and rarely achieves eradication without mechanical disturbance. Herbicide treatment can give the appearance of control but the rhizome network (roots below ground) may still be viable and disturbing the ground will cause the plant to regrow. Soil movement should not be attempted until no rhizome remains in a viable condition.

Spraying can only be carried out during the growing season when there is green, leafy material present. Herbicide treatments take effect within a few weeks but eradication can take a minimum of two sprays in one growing season to achieve. Often, when a contractor takes control of a site, the working programme is tight and does not allow sufficient time for this method of eradication to be used. Even so, a spraying programme may be an option for weakening the plant before removal or treating regrowth and remaining plants in the spring.

The person who will be undertaking the spraying must hold a Certificate of Competence for herbicide use or should work under the direct supervision of a certificate holder. A Certificate of Technical Competence can be obtained by attending a short course at an agricultural college or similar institution.

A COSHH assessment must be carried out for all activities involving herbicides. Further information on COSHH can be obtained from the HSE and HSENI.

The most effective active ingredient for use on Japanese Knotweed is called Glyphosate. This is the active ingredient found in 'Round Up' and other similar herbicides. It is effective on Japanese Knotweed even though it does not kill the plant immediately. Instead, the herbicide soaks through the leaves and is taken into the plant root system. The greater the number of green leaves present, the larger the quantity of herbicide that can be absorbed into the plant. It can take up to ten days for the plant to begin to die off after treatment and you should always watch for regrowth.

In **Scotland**, if you are planning to use herbicide in or near to a watercourse, you are

required to consult with SEPA.

2. Digging and Spraying

A quicker method of removing Japanese Knotweed involves the clearing of above ground leaf/stem material and the removal of ground material polluted with roots. Care should be taken to ensure that all Japanese Knotweed roots are removed - this is one situation where it pays to remove too much material.

Even with great care, a certain amount of regrowth in the spring would be expected and any should be treated with an appropriate herbicide as discussed above. Make sure you read on for tips on how to prevent spreading Knotweed fragments around the site during the works.

Disposal of Japanese Knotweed Polluted Material - Removal from Site

- Polluted material should be removed from the site for disposal, unless otherwise agreed with the Environmental Regulator and client.
- Japanese Knotweed should be disposed of in a suitably licensed or permitted landfill site.
- Material containing Japanese Knotweed is likely to be classed as non-hazardous waste. Note that non-hazardous is a different category from inert.
- As Japanese Knotweed is considered to be a pollutant, you can apply to HM Revenue and Customs for a 'Landfill Tax Exemption' for polluted soil. For further information on the Landfill Tax and exemptions, use the links below.
- Any bags/skips containing Japanese Knotweed or polluted soil leaving the site should be covered to avoid spread along public highways.
- Waste Transfer documentation will be required for any polluted material leaving the site.
- Check with the disposal site in advance that they can receive material containing Japanese Knotweed. Be aware, the disposal site may require notice to allow an area to be prepared for this material away from the landfill liner.

What to do when working in an area where Japanese Knotweed is present

- Knotweed polluted areas should be clearly marked out on site. Areas that do not need to be disturbed during the works should be fenced off, allowing a buffer of at least four metres to allow for the likely extent of the roots.
- Use of tracked machinery should be limited until areas polluted with Japanese Knotweed have been cleared and/or identified and cordoned off.
- If tracked machinery must be used in areas where Japanese Knotweed is known to be present, then consider using a strong geotextile overlain with hardcore as a base for vehicles to travel on.

- Areas where Japanese Knotweed has been identified should be cleared slowly, one at a time, with ongoing assessment of the extent of polluted ground. Only essential vehicles should be present in areas polluted with Japanese Knotweed.
- Never stockpile potentially polluted material within ten metres of a watercourse.

On leaving areas of the site known to contain Japanese Knotweed, any tracked machinery that has been used should be thoroughly cleaned within a designated area. This area should be as close as possible to the polluted area on which the machinery has been working to avoid the spread of the species. This area should be monitored in the spring for Knotweed growth and a spraying

- programme implemented if necessary. Any machinery used in clearing polluted areas should be similarly cleaned.
 - Care should be taken to ensure that polluted material is not dropped or transferred to other areas of the site.
- Japanese Knotweed polluted spoil should only be placed on top of a fabric/membrane in an approved, fenced area. Once the polluted material is removed from these areas, it should be monitored for regrowth, particularly during the growing season and, if necessary, treated with an appropriate herbicide as discussed above.
 - All site operatives should be made aware of the requirements associated with the removal/disposal of this species in order to help limit accidental spread.
 - All haulage lorries or dumpers carrying Japanese Knotweed polluted material should be covered.
 - Never use a strimmer, mower (without collection bucket) or chipper on Japanese Knotweed material.
 - If you are working between November and March in an area where Japanese Knotweed is known to be present, then dead shoots from the previous year can be a good indication of its location. Even if there is no growth evident above ground, the below-ground parts of the plant will still be alive. Breaking up this root network and transporting either off site or around your site on vehicle tracks will spread the plant. Use the precautions outlined above to reduce the risk of spreading the plant