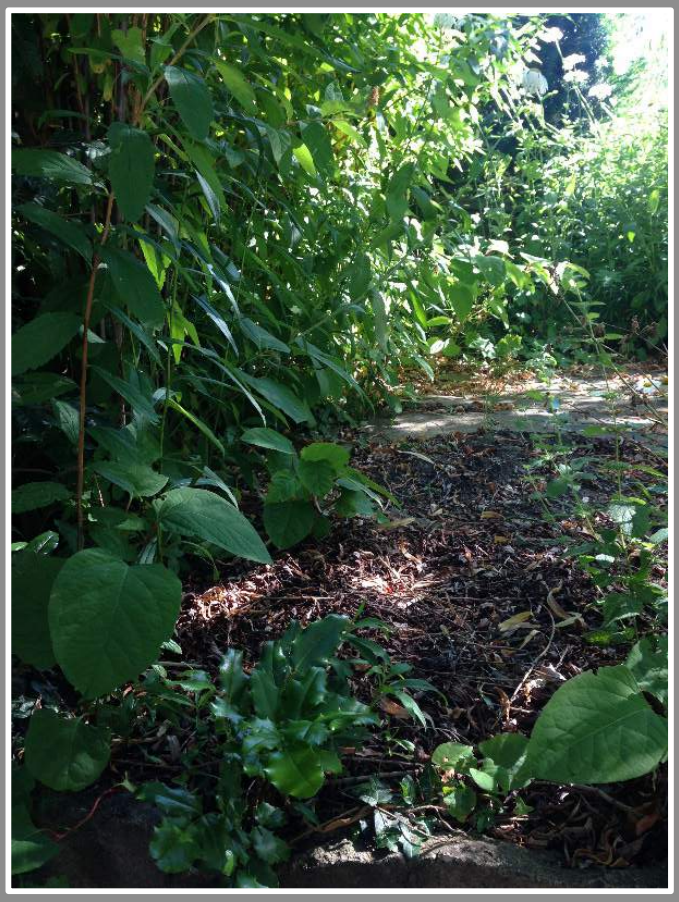
JKM
JAPANESE
KNOTWEED
MANAGEMENT

How to identify Japanese knotweed

Introduction

Japanese knotweed (Fallopia Japonica) is an invasive species introduced to the UK as an ornamental plant during the Victorian era. It is a fast-growing perennial weed that has creeping roots and bamboo-like stems. The plant grows rapidly and can spread unhindered; early identification is therefore preferable to contain the weed quickly.



Japanese knotweed is known for its thick bamboo-like stems, delicate white flowers and distinctive large shield-shaped leaves. However, this is the appearance once it has reached maturity in the summer months, different features will be observed in the plant as it emerges and grows during the year.

This document offers a brief introduction to the appearance and key characteristics of the plant, along with information about possible treatment methods.

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Japanese knotweed key features

A mature leaf is mid to light green in colour, and forms a distinctive shield shape. Leaves from hybrid plants tend to be more crinkled and heart shaped in appearance.

The best time to spot Japanese knotweed is in the summer, during these months the plant displays its most notable characteristics. The flat, shield-shaped leaf, white tasselled flowers and purple speckled canes should all be clearly visible.

A mature leaf is flat, 10-12cm in length and emanates from the stem in a zigzag pattern. Finally, in the latter part of the summer the plant produces clumps of tiny white flowers.

Spring

In early spring, new growth appears in the form of rolled red/purple shoots. As the young leaf grows it turns green whilst the veins remain a dark red colour. These young shoots can grow up to 2cm a day, allowing the plant to quickly establish itself in a new environment.

As shoots mature they can appear like asparagus, with green stem sections trimmed with purple/white ‘skirts’ at the nodes. Then in April/May the shoots will start to produce the distinctive leaves.

Summer

By the summer, the tall hollow stems of Japanese knotweed can grow up to 3 metres in height. At this stage, the plant is more easily identified because of those distinctive leaves, purple speckled hollow stems and the zigzag leaf structure.

The attractive creamy/white flowers emerge in clusters (panicles) late in the summer, providing an indication of why this once proved a popular plant in the UK. In this country, only hybrids of Japanese knotweed will produce seeds, it is spread here largely through the accidental dispersal of rhizome (root) fragments.

Autumn/Winter

Towards the end of the autumn the leaves turn yellow in colour before dropping to the ground. Bamboo-like canes will remain, but no new shoots will now emerge unless there is a particularly mild autumn/winter. At this stage, the hollow canes become brittle and often break to form a crown, which is a thick mass that connects the stems above ground to the extensive root network below ground, that could extend several metres vertically and horizontally. The next season's growth can often be seen emerging from the crown amongst a pile of broken canes.

Problems associated with Japanese knotweed

The destructive capability of Japanese knotweed should not be overlooked. The rapid growth above ground is only a reflection of its activity underground.

Thin fibrous roots extend downwards supporting thicker rhizomes (reproductive underground roots) that are actively searching for moisture and nutrients.

It's these rhizomes that can find air pockets in concrete foundations, damaged service pipes and loose tarmac then expand to create serious structural complications.

1. Japanese knotweed rhizomes can extend 7 metres from the above ground plant.
2. The plant can thrive in almost any soil types.
3. The rhizomes can lift paving slabs and occupy damaged sewerage pipes.
4. Japanese knotweed colonises areas, smothering native plants and forcing out indigenous species.

Treatment and removal options

Method	Description
Chemical treatment	Chemical spray or stem injection are the most common treatment methods.
Stock pile/bund	Excavation of all traces of material and removal to another area of the site for burning and/or chemical treatment.
Cultivation and fragmentation	Digging over the infested area to stimulate dormant propagative parts of the plant into growth for processing with chemicals.
Root barrier	This prevents Japanese knotweed rhizomes from reaching foundations of the property and exploiting weaknesses in its structure, a physical barrier (at least 3m deep) is installed.
Bury on site	The entire plant, including all aspects of the rhizome and crown, are carefully excavated. The material is then buried to a depth of at least 5m and covered with an impenetrable membrane. This burial must be located at least 50m from a watercourse and building foundations.
The treatment or removal method chosen should be assessed on a case by case and the remedy based on specific needs.	

Risk assessments and processes

A risk assessment is essential to mitigate risk for both the contractor and the affected party.

Standard considerations should include:

1. Current land use, future land use and development plans if applicable for any part of the site
2. Land based research to identify any relevant designations including sites of specific scientific interest and areas of outstanding beauty
3. Neighbouring land and any risk of spread or threats from invasive plants
4. Environmental implications of the current situation
5. Environmental implications of our actions in remediation
6. Compliance with legislation governing the control of Japanese knotweed
7. Measures to prevent re-infestation

Risk assessments and processes

The Health and Safety at Work Act 1974 and the Management of Health and Safety at Work Regulations 1999 place duties on companies and individuals to ensure that adequate provision is made for health and safety at work. Risk assessments evaluate safety measures that should be considered in accordance with these regulations and apply to each visit.

Considerations include:

1. Site security regarding condition of signs and exclusion areas
2. Assessments completed specific to chemical or other treatment use
3. Weather conditions
4. Current condition and spread of the plants
5. Personal protective equipment

Sources of additional information

There is plenty of useful and available information regarding Japanese knotweed and its control on the internet. There is also a great deal of unsupported information that often causes unnecessary concern.

The following publications and links provide access to recognised and comprehensive information concerning identification, complaining about the plant and the law.

Prevent harmful weeds and invasive non-native plants spreading
UK Government guidance

Japanese knotweed factsheet
GB Non-Native Species Secretariat

Legislation concerning Japanese knotweed

Wildlife and Countryside Act 1981
Japanese knotweed is listed in Part II of Schedule 9, as a species that it is an offence to plant or grow in the wild.

Guidance on section 14 of the Wildlife and Countryside Act, 1981
Published by the Department for Environment, Food and Rural Affairs

Environmental Protection Act 1990
Concerns the disposal of Japanese knotweed as controlled waste

The Infrastructure Act 2015
Amends the Wildlife and Countryside Act, introducing Species Control Orders

Anti-social Behaviour, Crime and Policing Act 2014
Outlines the power of a local authority (or the police) to serve a community protection notice if satisfied that a person or body's quality of life is affected.

Town and Country Planning Act 1990
Local authorities can require that landowners treat their land if it detracts from local amenities (this could include Japanese knotweed being present).