

Japanese knotweed, your time is up. Meet psyllid

By Louise Gray
Environment Correspondent

A STUBBORN and invasive weed that has been the bane of gardeners across the UK for more than a century has finally met its match in a tiny bug from Japan.

Japanese knotweed was introduced as an ornamental plant in the 19th century but, with no natural enemies here, it soon ran out of control, wiping out surrounding vegetation and threatening wildlife.

The invasive species, which can grow up to 13ft tall and break through concrete, causes approximately £150 million of damage a year.

Gardeners have tried starving it of water, soaking it in toxic weedkiller or simply ripping it up but nothing has worked – until now.

The insect, called a psyllid and about the size of a grain of sand, can fell knotweed within a few weeks. The plant-jumping lice lay eggs on the weed and the hatched larvae suck out the sap.

The bug is to be introduced to sites across the country by government officials, the first time that “biocontrol” – the use of a natural enemy to control another pest – has been used in Europe to fight a weed.

Biocontrol has, however, been tried elsewhere in the world with mixed results. In Australia, the introduction of the cane toad to control the cane beetle wiped out other wildlife but the introduction of certain diseases proved successful in controlling the rabbit population. The Department



The bug's larvae suck the sap from the weed

for the Environment, Food and Rural Affairs insisted that thorough tests have been carried out against nearly 100 British plants and crops to ensure that the psyllid will not become a pest.

Huw Irranca-Davies, the wildlife minister, said the “ground-breaking” project offered real hope for gardeners and could save industry and builders several billions of pounds. Japanese knotweed is currently proving a problem on the Olympics site in east London. “These tiny insects, which naturally prey on Japanese knotweed, will help free

Psyllid The tenacious sapsucker

The psyllid is the name given to a family of jumping plant lice that are found all over the world.

However, the different species tend to be “host specific”, meaning they will only eat one type of plant.

This makes them very useful in biocontrol because they can be released to kill one type of plant without affecting other wildlife.

The psyllid *Aphalara itadori*, now to be released in the UK, only eats Japanese knotweed.

The insects were brought over from a particular location in southern Japan where the plant grows in a

climate similar to the UK.

The aphid-like insect is about 2mm long and orange or brown in colour.

Typically, it will only live for a few weeks and go through two or three life cycles in one summer.

It lays thousands of eggs and as soon as the larvae hatch they start sucking sap from the plant through their sharp mouths. The winged insects are currently being bred in captivity in Britain but could spread once they are released, using the wind to carry them.

However, psyllid will be eaten by native predators such as spiders and wasps

and should die out once Japanese knotweed is brought under control.

Cabi, the organisation that will roll out the introduction of the psyllid, put eggs on about 90 other plants similar to the knotweed but none developed to adulthood.

They said this made it the “perfect candidate” for the first release of a non-native species to control another pest. However, Plantlife, a charity, suggested three additional plants – Northern Knotgrass, Tasteless Water-pepper and Small Water-pepper – should also be tested prior to release.

local authorities and industry from the huge cost of treating and killing this devastating plant,” he said.

Ian Nicholson, the chairman of environment and sustainability at the Institution of Civil Engineers (ICE), said: “Japanese knotweed is a big issue for the construction industry, costing millions of pounds each year to manage. The ICE therefore welcomes any advances in providing solutions to this invasive species, provided of course they do not produce any other negative impacts on the environment.”

The Commonwealth Agricultural

Bureaux International (Cabi) will manage the introduction.

The insects, also known as *Aphalara itadori*, will be released on to Japanese knotweed at three secret sites over the next few months and closely monitored before other sites are chosen.

Dr Dick Shaw, of Cabi, said: “This is a great opportunity for the UK to benefit from a technique commonly used outside Europe.

“We have every reason to believe that this knotweed specialist can help limit the impacts of this harmful invasive weed safely and sustainably.”