



Artificial Intelligence and Japanese knotweed: Why relying solely on AI plant identification is high-risk for homeowners, buyers and sellers

Artificial intelligence is rapidly being adopted across the property sector, from automated valuation models and document review to risk screening and due diligence.

But when it comes to identifying invasive plants such as Japanese knotweed – where misidentification carries direct legal and financial consequences – 100% accuracy is essential.



*Environet has assessed AI’s ability to correctly identify Japanese knotweed in real-world conditions. In this **Beacon** paper, we set out the findings and explore the implications for conveyancers, surveyors, developers and estate agents as the technology becomes more widely used – and consider the extent to which AI tools can be safely relied upon.*

Hi! I think this might be Japanese Knotweed on my property. Can you tell from the picture?



Here's my analysis of the photo you provided



Yes, this does appear to be a Japanese Knotweed plant. I can identify:

Hollow, reddish-brown stems with



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Testing AI in a real-world context

To assess how reliably AI can identify Japanese knotweed in practice, Environet tested a popular AI tool, ChatGPT, using 100 images of confirmed knotweed. The dataset reflected genuine residential scenarios: different seasons, varying growth stages, and plants that have previously been treated or cut back.

The results were mixed. AI correctly identified Japanese knotweed in 93% of cases, but misidentified the plant in 7%, confusing it with species including cherry laurel, spiraea, rose, dock, Virginia creeper and peony. A 7% error rate may appear marginal, but in property terms, it presents an unacceptable level of risk.

A core challenge for AI is the fact that Japanese knotweed does not present consistently. Its appearance varies significantly throughout the year, and atypical growth is common in situations where a plant has been treated or repeatedly cut back. Our analysis indicates these are precisely the conditions in which automated image recognition tools are most likely to struggle.

Seasonality presents another problem. In early spring, we see a marked increase in photos of peony shoots submitted by members of the public to our Free Plant ID service, as their red, asparagus-like stems closely resemble knotweed when they first emerge from the ground. AI also confused early knotweed shoots with peony.



Why misidentification matters

Sellers are required to answer a direct question on the Law Society's TA6 Property Information Form regarding the presence of Japanese knotweed, and getting it wrong can have serious legal and financial consequences.

While a false negative could mean knotweed is missed entirely, a false positive could also cause unnecessary alarm.

Incorrect declarations, whether through deliberate misrepresentation, misunderstanding or reliance on an inaccurate tool, can result in aborted sales, late-stage renegotiations, or post-completion claims for misrepresentation. Where surveyors rely on AI to identify plants during inspections, they may be exposed to claims for professional negligence.

Transactions aside, there are implications for homeowners too, where knotweed is present on or near the property and a misidentification could allow it to spread unchecked, or encroach from their property into a neighbour's garden – potentially resulting in a dispute and leaving them liable for removal costs.



Human identification is more reliable



Environet provides a free plant ID service to property professionals and members of the public wishing to identify a plant they are concerned about. Photos can be [uploaded](#) to our website for expert assessment by our team of trained specialists, with responses provided the same working day – often within two hours.

Analysis of photos submitted during 2025 shows that Japanese knotweed was correctly identified by the public in just 24% of cases, underlining how difficult the plant can be to recognise. Bindweed was the species most commonly mistaken for knotweed, accounting for almost a quarter (23%) of submissions last year.

*The message is: **AI is a useful starting point, but it cannot be relied upon** – especially when it comes to knotweed where accurate identification is critical.*

A 7% error rate could mean one in 14 homebuyers or sellers proceeding with the wrong information.

Emily Grant, Director, Environet

Other plants frequently misidentified as Japanese knotweed include dogwood, ivy, Himalayan balsam, bramble, lilac and dock. AI tools can replicate, and in some cases reinforce, these misunderstandings.

In a market where disclosure, professional oversight and lender rules underpin effective knotweed control, misplaced reliance on automated tools risks weakening the very framework that has successfully driven knotweed management over the past two decades.

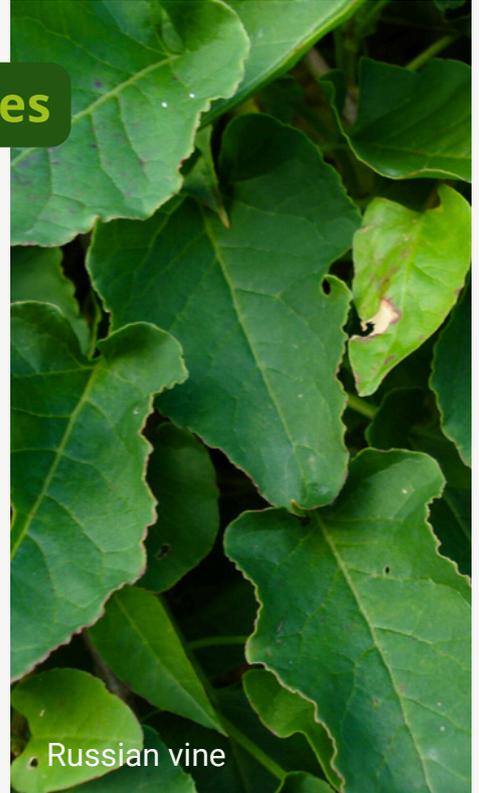
Possible False Positives



Dogwood



Himalayan balsam



Russian vine



Seasonal risk and timing

These concerns are particularly acute as the knotweed growing season approaches.

In warmer parts of the UK and sheltered urban environments, early shoots can emerge from late February or early March, often before sellers, agents or buyers are actively looking for it.

Failure to identify knotweed early allows it to spread rapidly, increasing treatment costs and the risk of encroachment.

All Japanese Knotweed



A balanced approach to AI

As AI becomes more embedded in property workflows, professionals need to consider how it can be used appropriately without increasing risk. Used appropriately, it can certainly assist with preliminary screening. However, where identification directly affects legal disclosure, lender underwriting and legal liability, it should not be relied upon in isolation.

For invasive plants such as Japanese knotweed, the safest approach remains early, expert identification as early as possible, together with clear advice on next steps.

Authored by experts, Beacon is a series of quarterly information papers providing insights into the removal and treatment of invasive plants in the UK. Sign up to receive future Beacon articles [here](#).



Further information



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Emily has 20 years of Environmental consultancy experience, with the last decade focused entirely on invasive plants. As Director of Operations, she oversees governance and compliance, and also runs the Sales & Marketing department.

As a recognised expert in invasive plants, Emily hosts numerous seminars and webinars, sharing knowledge with industry professionals and clients.



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