House & Home

No mere truffle: could this delicacy be growing in your back garden?

Usually unearthed by a rarefied elite of hunters, it can appear in some unexpected locations

Jane Owen MARCH 13 2021

Back in 2008, Ulf Büntgen was walking his beagle, Lucy, in the suburbs of Zurich. She began to dig in the woodland, as dogs do. What was less expected was what she unearthed: a Burgundy truffle.

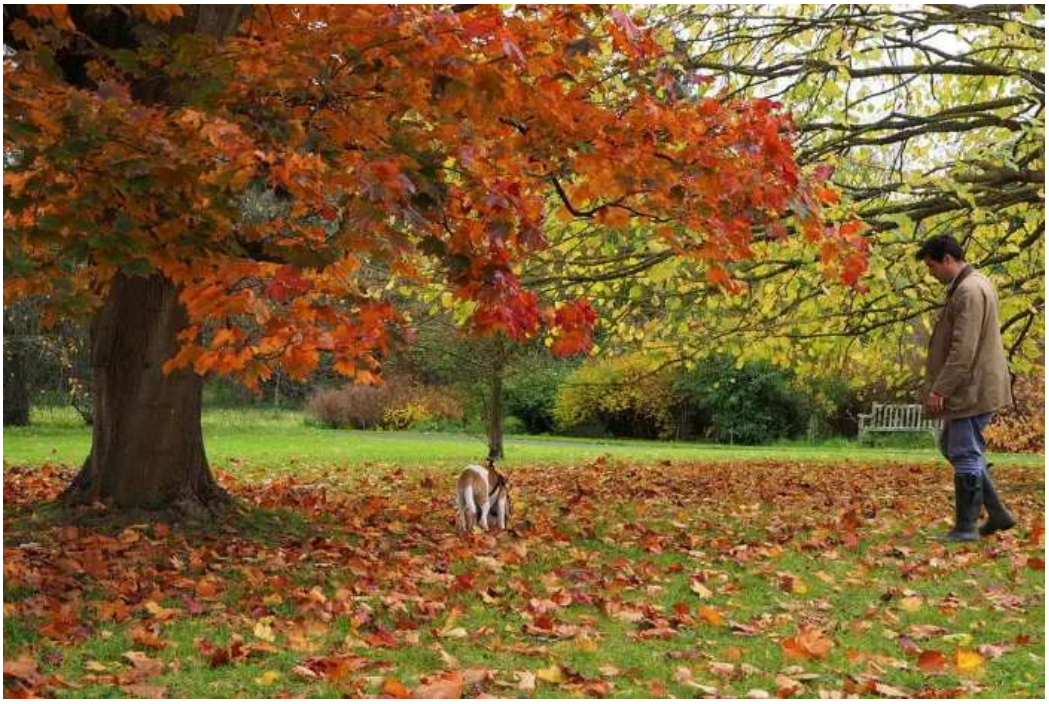
Truffles are renowned around the forests and scrublands of the Mediterranean and even of western Switzerland. But Zurich? And while Burgundy truffles — Tuber aestivum — come low in the culinary pecking order, they currently trade at about £180-£300 per kg when available.

Michelin-starred chefs and gourmands revere the curious pungent aroma of truffles and their mystical flavour-enhancing qualities; menus and festivals celebrate these curious subterranean fungi. Some experts from more conventional truffle regions, such as France, Italy and Spain, are celebrated with honours including a knighthood from the Order of Knights of the Truffles and Wines of Alba.

But Zurich?

“It was a total surprise. They are rare. And Lucy was not trained to hunt truffles. But beagles have extremely sensitive noses, and ripe truffles have a strong scent,” says Büntgen, a professor of environmental systems analysis at Cambridge university. Back then, he had been based at the Swiss Federal Institute for Forest, Snow and Landscape Research, investigating climate change.

Büntgen and Lucy’s discovery, and their subsequent truffle finds in Zurich and Cambridge, demonstrated that these delicacies may be growing in many gardens with the right conditions: a free-draining limy soil, above pH 7, with various tree roots available to the fungi.



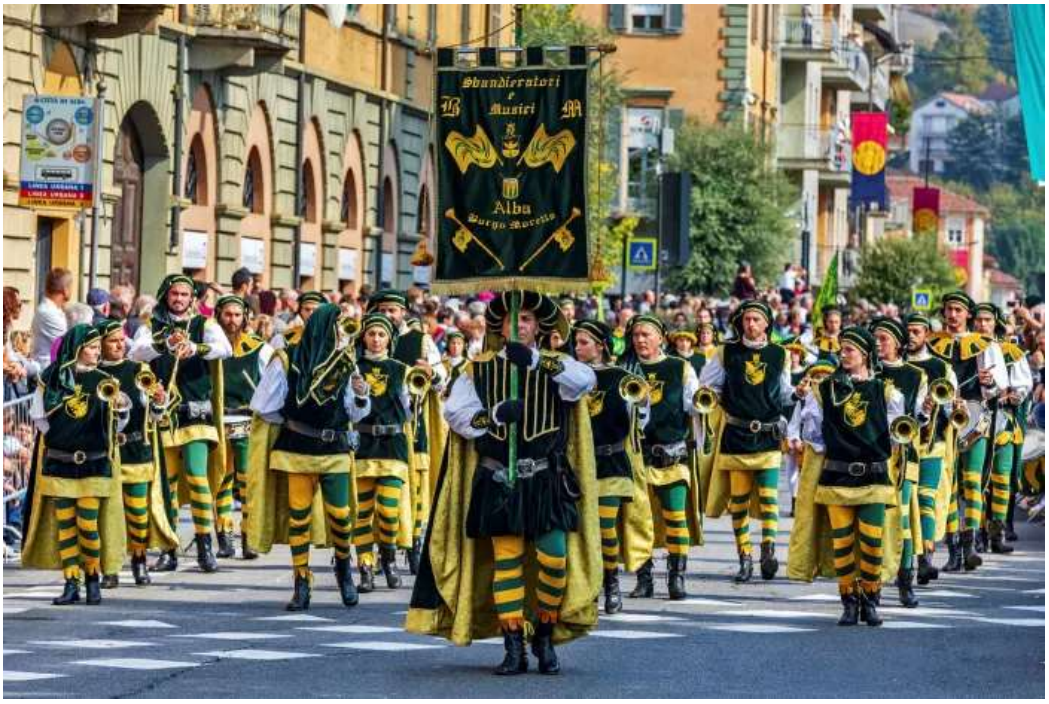
Ulf Büntgen and his beagle Lucy search for truffles at Cambridge University Botanic Garden

Look out across your garden and, who knows, you may be gazing across a landscape worth its weight in gold.

“There may be truffles in gardens, urban parks or even parking lots where there has been ecological disturbance,” says Büntgen. “They don’t only grow in woods.”

After eating the truffle — “Burgundy truffles are subtle: they need to be warmed with butter rather than cooked with olive oil” — he mulled over its subterranean life cycle. The fungi’s root-like mycelia form mycorrhizal, or symbiotic, relationships with various tree roots, from oak and hazel to pine, in order to develop.

“Curiosity is the best route to research,” says Büntgen. “Truffle ecology combines microbiology, plants, trees, land management, seasons, soil, psychology (because of the relationship between owner and dog), cultural aspects around food and cooking, and all this is related to climate. But many of the basic questions are still not understood, such as when cultivated truffles need to be irrigated.”



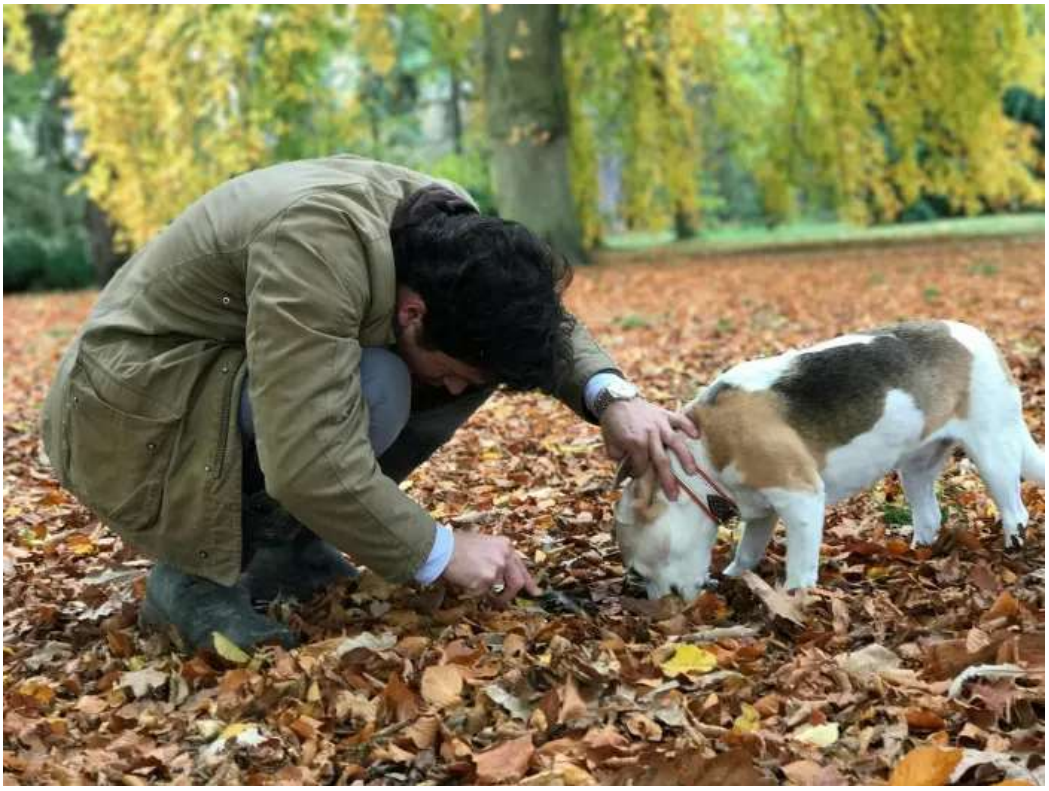
The annual White Truffle Fair in Alba, Italy © Alamy Stock Photo

Büntgen's climate change work took him and his family, including Lucy, to Cambridge, where the accidental truffle hound starred in a video unearthing truffles around Cambridge University Botanic Garden — now a touching memorial to Lucy, who died last year. Dogs are important to the truffle story.

In Italy, where truffle culture goes back to Pliny the Elder and beyond, Lucio Montecchio, professor of forest pathology at the University of Padua, has experience finding a variety of truffles, including the prized white truffle, Tuber magnatum, whose season runs from September to December and which can sell for as much as £4,000 per kg.

"Hunters are only allowed to operate strictly during the correct season and the licensee must use dogs trained to identify the presence of only mature tubers," he says. Until recently, he sat on a regional body controlling the licensing of truffle hunters and their dogs. Not all truffle-growing regions have such licensing systems and, outside Italy, pigs are sometimes still in use.

"In the past, pigs were allowed to hunt for truffles but now it is forbidden because the holes they make are too large and they are not able to distinguish mature from immature truffles, but also because pigs eat the truffles immediately, while dogs find, leave and wait for a different reward, often just a 'Bravo.'"



Ulf Büntgen and Lucy: 'There may be truffles in gardens, urban parks or even parking lots where there has been ecological disturbance,' he says. 'They don't only grow in woods'

Pigs and dogs aside, there are less conventional truffle-hunter options: squirrels, of which more later, and flies. The flies, Suillia gigantea, sniff out truffles and hover above the area when the truffles are ripe. Flies are more difficult to train than dogs although, given that bees have been trained to sniff out drugs and explosives, it might be possible. But that is another story.

A trained dog is probably the most straightforward way to check your backyard for truffles. Büntgen trained Lucy by buying a truffle and playing hide and seek with it but most people might be better off with expert guidance.

France, Italy and other parts of Europe have long traditions of professional truffle hunting and it is beginning to emerge in the UK. In the US, the Truffle Dog Company in Seattle runs online courses, as well as in-person training sessions.

"Our truffle courses are $249 for each level of class, $367 for the advanced field class," says founder Alana McGee, who puts her students, canine and human, through four training levels before going into the field to find living truffles. "All in, it's about $1,000 start to finish.

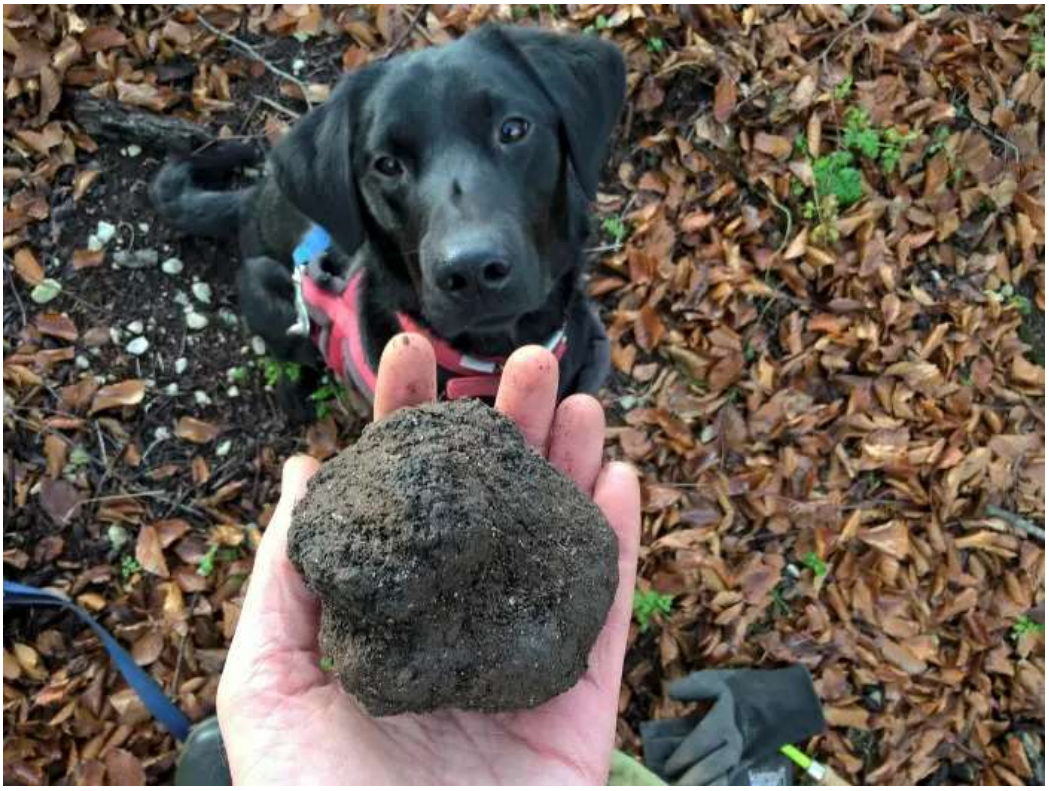
A truffle-hunting session with Seattle's Truffle Dog Company: four levels of training costs about $1,000 © Gabe Rodriguez

"Our truffle adventures, where we take folks into the woods with our trained dogs and guides for a culinary tourism adventure, run at $475. You keep the truffles we find and we show you how to cook with them and you get to try truffle tastes and bites, and cocktails along the way," says McGee, who adds that a trained dog will probably find many pounds of truffles over its lifetime and a few ounces during McGee's advanced classes.

In the UK, James Feaver, who founded the English Truffle Company in 2008, will bring his trained Labrador to your land to sniff out truffles for about £400 a half day, including travel expenses.

Lockdown has brought a surge of interest, and Feaver's most surprising job was in London, where a squirrel had found a mature truffle. Needless to say, the creature had eaten half of it before the garden owner could intervene. "But it was a Burgundy truffle," says Feaver, who was called in to confirm the truffle identity.

Given the current spate of dog thefts in the UK, Feaver is anxious not to reveal the name of his dog or their whereabouts other than that they are based in Dorset.



The English Truffle Company will bring a trained Labrador to your land to sniff out truffles for about £400 a half day, including travel expenses © The English Truffle Company

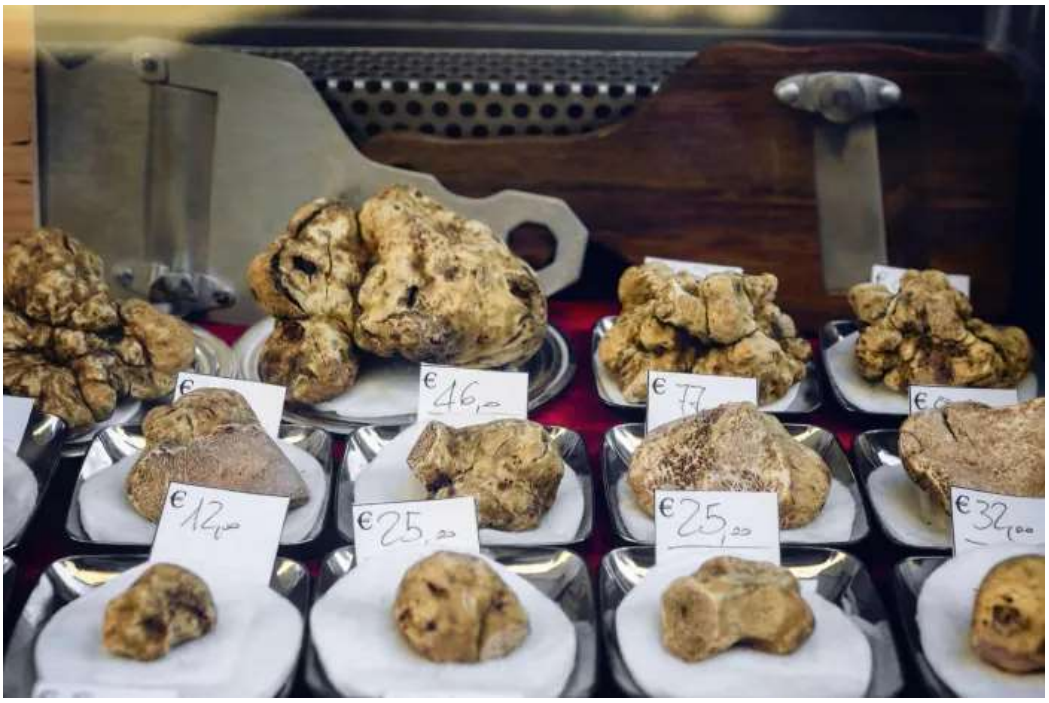
The English Truffle Company also runs dog and handler training courses, and sells one-year-old whips (small saplings) of English oak and hazel inoculated with summer black and winter black truffle from £32.95.

Enthusiasts have been trying to cultivate truffles for centuries without much luck, precisely because the sought-after fungi grow underground. It wasn't until the 19th century that the first successfully cultivated truffles were recorded but cultivation was and still is a hit-and-miss affair which involves "inoculating" or applying truffle spores, to oak, hazel or other tree roots associated with truffles. The exact process is a closely guarded secret.

In his book about fungi, *Entangled Life*, Merlin Sheldrake spoke to growers including Dr Charles Lefevre at New World Truffieres in Oregon. In the early 2000s, Lefevre managed a 30 per cent success rate with Périgord black truffles and then, without warning, it leapt to 100 per cent success without any change in cultivation methods. He still has no idea what triggered the change.

As Sheldrake points out, the cultivation of Piedmont white truffles and other prized mycorrhizal fungi is often unsuccessful because relatively little is understood about their relationship with plants or "the intricacies of their sex lives".

My insensitivity to the sex life of a truffle may be the reason for my truffle-growing failure. About 15 years ago, I invested £30 on a hazel tree whip inoculated with Burgundy truffle spores. I planted it in my limy, Cotswold garden and waited for brûlé, or burnt-looking area, to appear around the base of the tree indicating that the truffles are ripe — only to discover that the brûlé does not appear with Burgundy truffles.



White truffles for sale at a Truffle Fair stall in Alba © Alamy Stock Photo

Lacking a truffle-trained dog, I decided instead to dig around the roots, revealing no truffles. Truffles remain mysterious because their life cycle is difficult to research. The moment a truffle is revealed, by digging, it is separated from the mycelia and the tree roots, the very keys and essence of a truffle's life cycle. It has so far not been possible to experiment on or observe the tubers in growth because they are underground.

What is certain is that truffles will continue to delight, captivate and tantalise, as Pliny the Elder's *Natural History* describes in the first century: "As we have here made a beginning of treating of the marvels of Nature, we shall proceed to examine them in detail; and among them the very greatest of all, beyond a doubt, is the fact that any plant should spring up and grow without a root. Such, for instance, is the vegetable production known as the truffle . . . "

Types of truffle

The strange, pungent scent of a ripe truffle is celebrated by chefs around the world, who use the delicacy to enhance flavour of everything from scrambled egg to pasta to beef carpaccio. Prices for these knobbly brown, white or black fungi are volatile but high and vary according to variety, season and region.

Here are some of the world's most prized truffles priced by John Gregson from Trufflehunter in the Cotswolds, the leading UK supplier

Trufflehunter in the Cotswolds, the leading UK supplier.

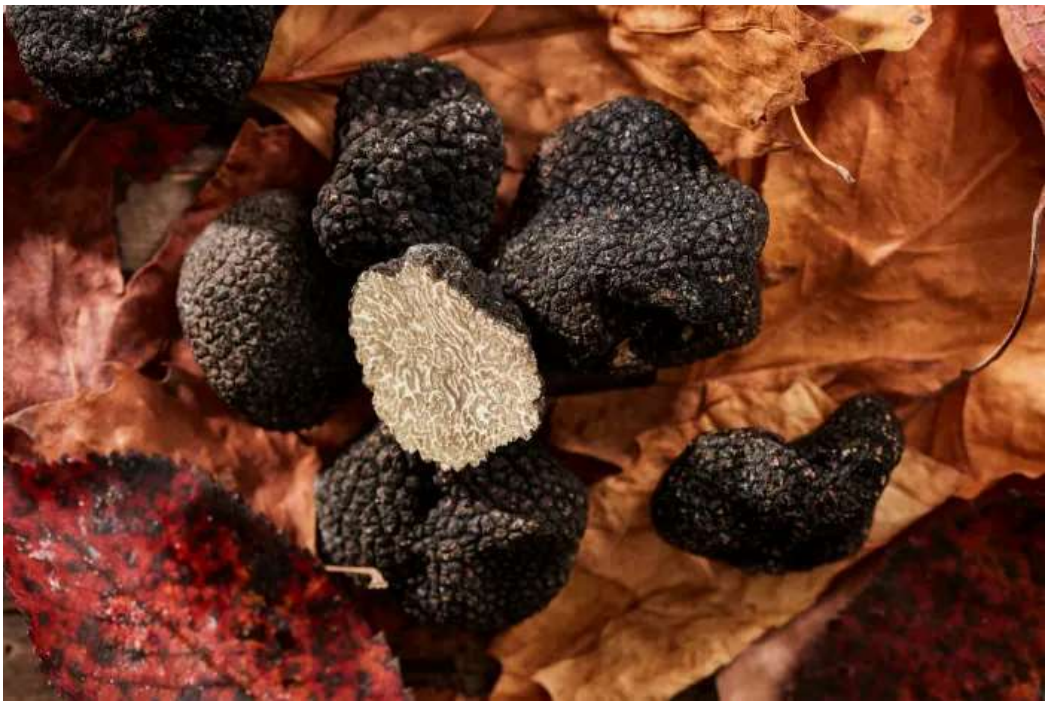
Magnatum (white winter truffle) £2,800-£4,000 per kg

© ELLIOTT WHITE

Melanosporum (black winter truffle)
£800-£1,500 per kg

© ELLIOTT WHITE

Uncinatum (autumn truffle) £250-£500 per kg



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Aestivum (summer truffle) £150-£300 per kg

Jane Owen is an FT Weekend contributing editor. She and FT architecture critic Edwin Heathcote discuss the pitfalls and pleasures of heritage restoration at the FT Weekend Digital Festival, March 18-20; ftweekendfestival.com

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This article has been corrected since publication to clarify several inaccuracies. Tuber melanosporum is known as Périgord truffle regardless of its provenance and not only when it is grown in Périgord. Périgord truffles are widely cultivated, contrary to the original assertion that attempts to cultivate them have mostly failed. Tuber aestivum and Tuber uncinatum are one and the same and also known as Burgundy (or summer) truffle. However when selling truffles, T. uncinatum is often used to distinguish the darker, riper truffle (harvested in autumn) from the paler truffle which is harvested in summer and usually referred to as T aestivum. The colour refers to the inside of the truffle or gleba.
