

Tackling Leaves on the Line!



With temperatures dropping and the night's drawing in, Network Rail is using a dedicated fleet to tackle leaves on the line.

A spokesman said: "Thousands of tonnes of leaves fall on the railway each autumn so we're doing everything we can to reduce delays and get you home safely and on time. Leaves on the line can create issues when they stick to damp rails. Moving trains compress them into a thin, black layer that can affect train braking and acceleration. The build-up of leaf mulch can also make it harder for signallers to detect a train's location, causing delays to your journeys. That is why we and the train operators are working flat out this autumn. For example, we're preparing specialist equipment, undertaking specialist driver training and ensuring teams are on standby 24/7 to help keep services running safely and smoothly.

Disruption prevention

Regarded as the railway's equivalent of black ice on the roads, leaves on the line can affect train braking and acceleration. This means train drivers must slow down earlier for stations and signals to avoid overshooting them. They must also accelerate more gently to avoid wheel spin. All this can increase journey time and lead to delays. Build-up of leaf mulch can also make it harder for the signallers to detect a train's location, causing delays when subsequent trains are unable to proceed until the train in front moves further up the line.

Nick King, network services director at Network Rail, said: "Our preparation for this year's autumnal weather has been as comprehensive as ever, and our highly skilled frontline teams and leaf-busting trains will be working non-stop to help keep the tracks clear and services running on time. We have worked tirelessly to make sure passengers can travel by rail safely over recent months – for example through enhanced cleaning regimes at stations and introducing hand sanitiser points at our stations.

Already, one operating company has announced that it will be running slower trains from this week because of leaves on the lines. Chiltern Railways' Leaf Fall timetable will run until mid-December and will impact customers travelling to London Marylebone from stations including Oxford and Bicester Village.



How we do it

Our trains are equipped with a high-pressure pump and clean the rails by spraying them with a water jet at very high pressure to blast away leaf mulch. This clears the tracks and helps the signalling system to work correctly. They then apply a layer of adhesion modifier – a mixture of suspension gel, sand and steel or iron shot – to the rail to aid traction and help trains run like they normally would.

Network Rail's autumn preparation programme includes multiple measures:

- A total of 61 leaf-busting trains, which move around the railway cleaning the top of the rail by spraying it with a high-pressured water jet to blast away leaf mulch.
- These trains apply a gel, containing a mix of sand and steel grains, to help the train wheels run along the tracks as they ordinarily would.
- We have 80 two-person leaf-busting teams on-hand 24/7 at crucial locations across Britain to scrub the top of the rails by hand with a sand-based treatment, so that trains can run safely and reliably on the tracks.
- Management and replacement of lineside vegetation with species less likely to shed leaves on to the tracks.
- Between 1 October and 13 December, we receive adhesion forecasts twice a day from a specialist weather forecaster, highlighting locations that require action. This allows us to plan resources more effectively.
- As an industry, we work together to run a safe and reliable service. In areas with heavy leaf-fall, some operators publish special autumn timetables with revised journey timings to allow train drivers to drive more cautiously than usual.

In 2019, our leaf-busting trains treated about 895,217 miles to keep the railway clear. This is equivalent to travelling to the moon three and a half times.

