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Press Release

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[Metro-North](#)

IMMEDIATE

Autumn Leaves Provide Tricks But No Treats for Metro-North

When fall leaves fall, they create "slip-slide" conditions that can result in service delays and damage to train wheels.

MTA Metro-North Railroad will use several techniques this season that should help combat "slip-slide," which is caused by a slimy, slippery residue left on the rails when fallen leaves are crushed by the train wheels. This goo gets even more slippery when it rains and can hinder a train's ability to speed up or slow down as its wheels skid along the rails.

Sometimes, it will even cause a train to make an emergency stop because the onboard computer system perceives the train car's slipping wheel as traveling at excessive speed.

All this slipping and sliding and emergency braking can result in flat spots on train wheels that means taking equipment out of service to make repairs.

To fight slip-slide syndrome, Metro-North will dispatch rail wash trains during this time of year to "blast" the leaves off the tracks with high-powered jets of water and rail scrubber trucks that use steel brushes to clean the rails. This year, a gentle alkaline solution will be mixed with the water, which in tests has proven to be fairly effective on breaking down leaf residue, thus reducing the slipperiness of the rails.

The residue that leaves leave is actually pectin-the same substance that makes jellies and jams "gel." In a laboratory setting, scientists discovered that leaf pectin reacts with rail steel to form "iron pectate," which, while not very tasty, does play a key role in the formation of a thin but highly viscous layer of "slime" on our rails. This substance not only helps leaves cling to the rails, it also makes them slippery. So the root of the railroad's slip slide problems is not jamming on the brakes, but jam on the tracks!

Metro-North also has reprogrammed the software on its new M-7 cars so that the braking system adjusts to slip-slide conditions, instead of going unnecessarily into emergency stop mode.

Metro-North also is enhancing its train tracking computer system to allow for automatic and accurate reporting of "slip-side" incidents and conditions along our tracks. This will allow the railroad to take corrective action more quickly.

Under certain conditions, Metro-North will reduce speeds through problem areas. This speed reduction will usually not result in service delays, but it will also reduce the chances of "slip-slide" and resulting wheel damage. And no flat spots on train wheels means trains can run at regular speeds in non-problem areas and stay in service for the next trip.

Metro-North is also testing the effectiveness of on-board "sanders" on the M-7 cars. These high-tech sand-boxes will automatically dispense a pinpoint, high-pressure dose of sand directly in front of the wheels when a train starts to slip. This should improve traction, resulting in less wheel slippage.

Despite all of these changes in tactics, Metro-North will never be able to eliminate slippery rail. But the railroad will continue to aggressively combat the problem to minimize the delays and inconvenience that leaves can create for some of its 266,000 daily customers.