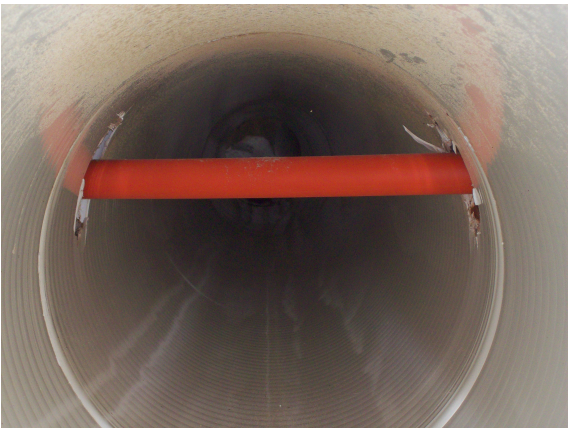


EFFECTIVE IN-HOUSE ROOT CONTROL FOR SEWER SYSTEMS

By NASSCO Member Jerry Weimer, Owner, Jerry Weimer Consulting

Roots infiltrating sewer systems are a major concern for many municipalities, leading to blockages, overflows, and potential EPA fines. Traditional root-cutting methods, such as spinner nozzles for light to medium roots and root saws for heavier growth, can cause pipeline deterioration over time. To mitigate damage, a proactive chemical root control program is a more sustainable solution.



Before cutting roots, a thorough sewer inspection via CCTV is crucial to identify **hazards like cross bores** (picture above) hidden within root masses. Failing to detect such hazards could lead to costly and dangerous complications.

Instead of frequent mechanical cutting, chemical root control mimics how we treat weeds in a yard. Municipalities can either contract out this service or handle it in-house. When choosing a chemical, it is essential to consider its impact on the environment, treatment plants, and sewer infrastructure. Some chemicals require a pesticide license and may disrupt wastewater treatment processes, while others may not require a pesticide license and are more treatment-plant friendly.



TIP:
Applying the chemical in small sections prevents overloading the treatment system.

For best results, chemical root control should be applied six to eight weeks after mechanical cutting to allow sap to dissipate, enabling the herbicide to be fully absorbed by the roots. Using a foaming agent ensures even distribution, reaching roots at the top of the pipe and in lateral connections.

TIP:
The nozzle should be centered within the pipe for consistent application.

The process involves retrieving the hose at an idle speed to ensure the line is thoroughly coated with foam. A successful application should produce foam buildup a few feet high in the downstream manhole. This allows the herbicide to reach several feet into laterals, preventing regrowth and reducing the need for additional root cutting.

A well-structured root control program typically treats affected lines every two years, depending on the product used. Employees handling the chemicals must be properly trained, use appropriate personal protective equipment (PPE), and follow safety guidelines to prevent exposure.

It's important to note that while chemical root control kills roots, it does not remove them. Sewer lines should be inspected after treatment to determine if cleaning is needed to remove dead root masses. In some cases, waiting for a few months before cleaning allows for easier removal.

Notifying residents before conducting chemical root control is a best practice, as it prepares them for potential odors or minor chemical spills. Transparency fosters trust and ensures the community understands the importance of maintaining a healthy sewer system.

By incorporating chemical root control into routine sewer maintenance, municipalities can reduce pipeline damage, extend infrastructure lifespan, and minimize costly emergency repairs.

TECH TIPS IS A BI-MONTHLY ARTICLE ON TRENDS, BEST PRACTICES AND INDUSTRY ADVICE FROM NASSCO'S TRENCHLESS TECHNOLOGY MEMBERSHIP PROFESSIONALS

Follow us on social media or visit NASSCO.org

