

Growth Regulation of Shrubs

Chad M. Rigsby, PhD, Research Scientist

Commercial Landscape

Properly maintained shrubs and hedges contribute aesthetic value to landscapes. Because of how they are used, these plants often require frequent pruning to maintain consistent size and shape. This investment in shrub and hedge pruning can prevent property managers from addressing other important needs. However, products called “growth regulators” can considerably reduce the need for pruning, even if strict dimensions are desired.

What is Trimtect®?

Decades ago, plant pathologists were exploring new chemistries to manage plant diseases. One of the substances tested, paclobutrazol, drastically reduced plant growth [1]. Practitioners recognized the usefulness of this “growth regulation” and formulated products that could be used in agriculture, horticulture, and urban forestry. Today, Bartlett Tree Experts utilizes one such product, Trimtect®, because of its success in maintaining overall plant form.

How Trimtect® Works

Regulating the growth of a shrub may seem detrimental, but it does not harm plant health. Paclobutrazol, the active ingredient in Trimtect®, reduces the production of specific growth hormones in the plant [2]. These hormones are responsible for making plant cells larger. When Trimtect® is applied, the same number of the cells are produced, but the plant cells expand less. As a result, the shrub has compact growth and darker green foliage.

How to Use Trimtect®

To be most effective, an application of Trimtect® should be made immediately after pruning. Because precise timing is required for optimal results, we

Figure 1: Trimtect®-treated hedge section with compact form (left) and untreated section (right)



recommend your Bartlett Arborist Representative perform both the pruning and product application or coordinate with individuals conducting the pruning.

Discuss With Your Arborist, First!

Certain species of shrubs may be better candidates for growth regulation than others. Contact your Bartlett Arborist Representative to learn about management options.



References

- [1] S. Bai, W. Chaney and Y. Qi, "Wound closure in trees affected by paclobutrazol," *Journal of Arboriculture*, vol. 31, pp. 273-279, 2014.
- [2] W. Rademacher, "Growth retardants: Effects on gibberellin biosynthesis and other metabolic pathways," *Annual Review of Plant Physiology and Molecular Biology*, vol. 51, pp. 501-531, 2000.