RESEARCH LABORATORY TECHNICAL REPORT



Spanish Moss Management

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Spanish moss is a signature plant of the coastal Southeast and Gulf States. The long, slender grayish growth is frequently found on live oaks (Figure 1) and bald cypress, but many other tree species will support this plant. This plant is generally considered desirable and part of the charm of the landscape of the coastal Southeast.

Spanish moss (*Tillandsia usneoides*) is not a moss or a lichen at all but an epiphyte, or "air plant" in the bromeliad family which also includes pineapple. This plant consists of slender stems with scalelike leaves and air roots (Figure 2). *Tillandsia* produces inconspicuous flowers and seed that are reponsible for dispersal. Spanish moss also is spread when small fragments are blown by wind or carried by animals, especially birds that use the plant for nests.

Figure 1: Dense accumulation of Spanish moss in branches of live oak



Spanish moss is not parasitic to trees that support its growth. Instead, it derives nutrients and water from rainfall and produces its own food from photosynthesis like other green plants. In some instances, *Tillandsia* can become so dense that it shades out foliage on its host which can weaken the tree. It can also add considerable weight and wind resistance to branches increasing the risk of storm damage in hurricane-prone coastal areas.

Management

Management of Spanish moss is only required when it has become so dense that it is shading out the foliage of the support plant or could increase the risk of damage during storms. People may also desire to reduce the density of Spanish moss for aesthetic reasons. On small maturing trees such as dogwood and crapemyrtle, removal by hand is practical. On larger trees, spray treatments are the only practical means of reducing the density of this epiphyte. Numerous copper products are available to treat Spanish moss. Some of the newer products can be safely applied throughout the growing season without any risk of damage to the support tree or surrounding vegetation which was a problem with certain copper products used in the past.

Copper treatments do not have to be applied thoroughly to the entire tree because the goal is to suppress the density of Spanish moss rather than eliminate it entirely. Usually, the lower portion of the canopy contains the heaviest concentration of moss so treatment may only be needed on lower branches. Copper controls the Spanish moss slowly and visible results are often not apparent for 2-3 months after application. It may require a year or more for the treated Spanish moss to "weather off" branches.

Figure 2: Close up of Spanish moss



Sodium bicarbonate (baking soda) spray treatments are also effective in suppressing Spanish moss. Sodium bicarbonate must be applied at higher concentrations than copper products so it can only be applied in the dormant season to avoid damage to new growth and to plants that may be actively growing beneath the tree. Unlike copper, sodium bicarbonate results in a rapid browning of the treated moss, but regrowth from the inner portion of dense clumps of moss is more likely to occur.



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