

Chipco Proxy—A New Plant Growth Regulator for 1999

Fred Yelverton

In the previous issue of Turfax, we discussed a new herbicide (Drive) which is registered for use in turf for 1999. In this issue, we will discuss Proxy, which is a new plant growth regulator that has obtained EPA registration for use in turf. In addition, another herbicide, Lontrel Turf and Ornamental, is scheduled to be available for the third quarter of 1999. Lontrel will be discussed in a future issue. It is noteworthy that at least 3 new herbicides or plant growth regulators will be available in 1999. This is indicative that the turf market is growing and the basic manufacturers are optimistic about the future of turfgrass management.

The common name for Chipco Proxy is ethophon. Unlike other currently registered plant growth regulators such as Primo, Cutless, and TGR Turf Enhancer, which work by temporarily inhibiting gibberellin biosynthesis in plants, the mode of action for Proxy is associated with the release of ethylene gas in plant tissues. Ethylene is a naturally occurring plant growth hormone that generally

occurs in very small quantities (usually less than 0.1 ppm) in plant tissues. However, ethylene is responsible for a number of growth responses in plants, including leaf bending (epinasty), leaf abscission, stem swelling, inhibition of stem growth, fruit ripening, and flower petal discoloration. **Proxy retards foliar growth by stimulating the production of ethylene in plants.**

Ethophon is currently registered as a plant growth regulator for several other agronomic and horticulture crops. Because other formulations of this product are currently registered with the EPA, the registration of Proxy was very fast. **As a result, there is limited research on the effects of this plant growth regulator on turf.** However, data from a few researchers across the country indicate that Proxy can be effective in reducing vegetative growth of turf. In a year or two, much more will be known about this product.

Proxy is a foliar-absorbed product that should be applied to actively growing turf. The plant growth re-

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Counting Wildlife—Is There More?

James B Beard

The number and diversity of birds and other animals present is a key indicator of the environmental health of a golf course. The presence of these animals in a landscaped golf course environment is an added beneficial feature for individuals playing a round of golf.

During the past decade considerable emphasis has been placed on counting the actual number and diversity of birds and other animals present on a golf course. Golf course officials are encouraged by wildlife specialists to provide an environment that is increasingly hospitable to a diversity of wildlife, including the construction of artificial features and structures. **The implied philosophy to date has been "the more wildlife the better."**

However, is this approach really appropriate and realistic? There are numerous examples around the world where man has attempted to enhance wildlife numbers that have resulted in excessive populations, e.g., Canada geese, deer, wild pigs, and others. The result has been a deterioration in the animal's natural habitat, and in some cases has presented human health hazards as well as habitat loss or imbalance relative to other desirable wildlife species.

Would not the better approach be to assess the existing and potential natural habitat carrying capacity for each golf course site in terms of the range in wildlife species and specific numbers that can be realistically supported? Threshold levels should be established as to the maximum, balanced numbers of wildlife for a range of the appropriate animal species. Then subsequent plant and animal surveys can determine if those population thresholds have been reached, which will signal an alert when an excessive population is developing. This is especially important where man-made structures have been constructed that may need to be removed to avoid an animal population level that overburdens the local habitat, and causes significant habitat deterioration on the golf course. Also, one should recognize that humans are a component of the Animal Kingdom that occurs on the golf course.

An even greater question is "do wildlife scientists know what species and populations levels can be realistically supported by each individual type of soil-climate ecosystem?" Is this important basic principle being ignored in the rush to improve the image of golf courses through wildlife habitat enhancement?