

**W**ith the announcement of the architect for the 2016 Olympic golf course in Rio de Janeiro, Brazil, the construction and establishment phase for the golf course will begin shortly. No doubt the excitement will be high over the next few years here and abroad on this interesting story. But I will be most interested in how the course handles the way turf and ornamental products are registered, labeled and used.

In the United States we accept that the EPA and state registration of a new product — especially a pesticide — can be an arduous process, especially for turf and ornamental products. However, we have a high degree of confidence that, once labeled, the product will work according to labeled directions and be considered safe (or low risk) to the user and the environment.

Globally, pesticide registration and labeling of agriculture products is a structured, well defined process. However, when it comes to the registration of turf and ornamental products, the process is often haphazard or non-existent.

It is extremely frustrating to go into a country that may have a pest problem and find that there are very few, if any, products labeled for turf. In many countries the product is available for agricultural use but there's no telling of the legality on turf. Where illegal to use many golf course superintendents have little to fight against the continual attack from disease, insect and weed pests.

In countries where agricultural products are allowed for use on turf and ornamental, what are the issues? Imagine yourself as a superintendent where you can only use agricultural chemical products. First you would need to determine the turf rate compared to the rate used on corn, soybeans or some other row crop on the agricultural label. Often this might consist of visiting the company's United States website to look for the turf label. You would then try to interpret the rate, given formulation differences and whether the rate is higher or lower than that recommended on the agricultural product. And if there is a significant difference, what does that mean?

## A Concern for Global Golf

BY KARL DANNEBERGER



**WHEN IT COMES TO THE REGISTRATION OF TURF AND ORNAMENTAL PRODUCTS GLOBALLY, THE PROCESS IS OFTEN HAPHAZARD OR NON-EXISTENT.**

Now imagine that you are interpreting the company's United States turf and ornamental label with English as your second language. Now combine the potential language barrier with how we express units. Here in the United States we mainly use English units while most of the rest of the world uses metric units.

What about differences in formulation? Although the active ingredient may be the same between an agricultural and turf and ornamental product, the formulation often varies. Formulation differences in part might be due to where the product is used. For example, if you are formulating a product to be used in the middle of a 2,000-acre corn field what you can tolerate regarding plant safety, drift, or efficacy is considerably different than if you are spraying around gardens, ornamentals, on short-cut turf or in the presence of golfers.

I think you can now appreciate why many international golf course superintendents placed in the situation of using an agricultural product get extremely worried should they make the wrong interpretation, assumption or rate conversion.

How countries structure product registration will be one important aspect if golf is to continue to grow internationally in a sustainable manner. The lack of a registration process exposes golf negatively through a lack of product stewardship. Although we do not like government intrusion into our lives, it is the duty of governments to provide legislation that governs the safe use and environmental protection that will help golf's growth internationally be sustainable.

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*Karl Danneberger, Ph.D., Golfdom's science editor and a professor from The Ohio State University, can be reached at danneberger.1@osu.edu.*