

CATCH THE DRIFT

by **GEORGE B. MANUEL**

Agronomist, Mid-Continent Region, USGA Green Section

GOLF COURSE SUPERINTENDENTS throughout the country are hearing a clear message in the 1990s; spray fewer pesticides, use less fertilizer, and protect streams, rivers, and lakes. In other words, they're being asked to protect the environment. The good news is that the message is being both heard and addressed by concerned turf managers across the country.

Without question, both wildlife and the environment are benefiting from the activities of enlightened golf course superintendents. Unfortunately, many employees who apply pesticides sometimes are not receiving the same protection or consideration. This is not the case at Topeka Country Club, however, where Certified Golf Course Superintendent Cary Tegtmeyer is in charge. Cary, his assistant Leo Pellant, and mechanic John Kolodziej teamed up to develop a spray rig that protects the applicator while pesticides are being used.

The health of the pesticide applicator is too important to risk the inhaling of potentially hazardous chemicals. As most operators have experienced, it is difficult to completely avoid the drift of fine sprays or dust from granular materials during their application. In the past, protection normally was limited to goggles, a respirator, and in some cases protective clothing. Sometimes, because the gear is so uncomfortable (especially in the hot, humid summer months), it stays in the chemical room or closet instead of on the spray technician. This is what makes Cary Tegtmeyer's idea so appealing; it does a better job of protecting the worker while significantly increasing the comfort level.

Nearly three years ago Cary and his staff realized the importance of these issues and began searching for an inexpensive spray unit that could be modified. With the cooperation of a local turf equipment distributor, a suitable truckster and cab were found.

Although this modified rig may look somewhat cumbersome, it is very similar to those used on most golf courses. The system is PTO driven and has a 100-gallon tank and a 16-foot adjustable boom. The boom is easily detached, and a pull-behind unit for spreading granular materials can be put in its place. A flow meter is utilized to help calibrate and monitor chemicals applied.

What makes this sprayer so unique is the enclosed cab where the operator rides during application. Instead of being subjected to fine particles or spray drift, the individual is seated in an enclosed environment. When spraying, he is completely protected from exposure to any airborne pesticide particles. To help keep the spray technician comfortable, two different cooling systems are employed. A filtered system is used during the spraying operation, and the system used during travel times is not filtered.

During the application of materials, a charcoal-filtered fan system is utilized. Air is pulled into the cabin by small electric motors, and the air is filtered as it enters. The filters are easy to replace and should be changed every three or four sprayings, depending on the materials applied. There is one filter and fan setup on each side of the cab. The fans are turned on easily by flipping a single toggle switch. According to the staff, the incoming air pressurizes the cab slightly and further reduces the chance of chemical drift entering the cab. During travel to and from spray sites, the

windows are opened and an evaporative cooler (located on top of the cab) is turned on. This provides cooling and a steady stream of air. By using this type of cooling apparatus, the air in the cab is constantly changed, and the water is recirculated. On hot days it is not uncommon to fill the reservoir with a combination of water and ice. The chilled water absorbs more heat from the incoming air, resulting in a cooler flow.

This is the first enclosed sprayer that Cary, Bob, and John have developed. As with all "firsts," there are a number of refinements that need to be made on their next generation of modified spray rigs. Top priority among these modifications will be better insulation and a water-cooled engine to help dissipate heat in the cabin.

In spite of the minor drawbacks, this innovative thinking is protecting those who apply pesticides at Topeka Country Club. It is their hope and mine that everyone who reads this article will catch our drift, so your employees don't catch the drift from your spray application system.

Because the operator sits in an enclosed environment, the risk of coming in contact with spray drift is greatly reduced.

