

Weeds also love Hawaii's 'perfect' growing weather

By BRADD PAVUR

Hawaiian golf courses are generally considered to be a golfer's dream. And because of Hawaii's moderate climate and year-long growing season, it would seem these courses are also a superintendent's dream. But this is not always the case.

Hawaii's extended growing season means that weed seeds, just like grass seeds, can germinate at almost any time of year. High winds may transport seeds great distances, and seed reservoirs can develop and contaminate "clean" areas when least expected.

To complicate matters further, the heavy clay soil found on many Hawaiian courses inhibit deep root development. This problem with shallow root systems is compounded by the fact that the clay soil is compacted even further by a steady flow of foot traffic. Of course, the clay soils are also not the most desirable type to work with in an area that gets almost 100 inches of rain annually.

But for Hawaiian turf professionals, the key to success lies in knowing how to adapt to their courses' unique qualities. Still, even the best-laid plans can sometimes go awry.

Two years ago a massive renovation project was begun on the 27-hole Princeville Makai course on Kauai. When the ground was broken up, head superintendent Yoshi Harada and assistant superintendent Damian Baptiste found "an incredible amount" of goosegrass seeds in the soil.

They had been planning to put down sprigs, but did not want Bermudagrass to have to compete with highly viable weed seeds that thrive on compacted clay soils. Harada and Baptiste knew goosegrass seeds germinate at temperatures ranging from 65 to 85 degrees, and would, therefore, stand an excellent chance of rapidly establishing.

They also faced a dilemma because they feared that applying most pre-emergent herbicides too soon after sprigging might prune the delicate and already disadvantaged Bermudagrass roots. They finally arrived at the novel solution of applying an oxadiazon herbicide immediately after sprigging. The decision was based primarily on the fact that the herbicide has the unique quality of not pruning turfgrass root systems.

"In the past I had experienced problems with other herbicides," says Baptiste. "The dinitroaniline (DNA) products caused phytotoxicity, and pendimethalin pruned the roots. The oxadiazon caused some temporary, initial set-back, but the grass grew in just fine, and we didn't have much of a need to go back with a post-emergent."

"Knowing that a product will

not prune roots is critical in Hawaii because very often we're lucky if roots reach a length of even one or two inches. Except on greens, it is pretty rare for them to go down three inches.

In keeping with standard practices, Baptiste applied Roundup two days before sprigging to help reduce unwanted weeds in the areas. But he next took the innovative step of immediately following his sprigging with the oxadiazon application. "We're the

only golf course in Hawaii to do this," says Baptiste, "but it started better grass for us, and we didn't have hardly anything to spray when we went back later to apply post-emergents."

With the renovations now complete, Harada feels the approach they took gave their course a real edge.

"We applied the product on almost our entire course," says Harada. "I'd say we came out way ahead because we had our hy-

brid Bermudagrass come up without all the weeds."

Weeds on the Makai course have always been particularly difficult to handle, emphasizes Baptiste, because some have become resistant to post-emergent herbicides.

"Our weeds are so hard to get rid of that we usually just dig them out rather than counting on post-emergent herbicides. That's why we find we have to rely heavily on getting good pre-

emergent control."

In addition to being concerned with product efficacy, Baptiste stresses that he considers safety to plants absolutely critical. "We have tried a large number of herbicides, and what we found was that a lot of them caused burning on our heavily compacted soils. That's why we made the switch to a pre-emergent herbicide that we know works well, without our having to worry about it hurting the grass."



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