



A look at the past— a glimpse at the future

by Donald D. Hoos, Western Director, USGA Green Section

"Whew! It's almost over," might be the best description for the past year from Southern California golf course superintendents. Mother Nature made life miserable for many golf courses throughout the year. It all began in February when the skies opened and dumped bucketfuls of rain on a Southern California accustomed to teaspoonfuls. Golf Courses were literally washed away. Particularly hard hit were the San Diego and Palm Springs areas.

If we can look for something positive from such a catastrophe, perhaps the rains will be beneficial in the long run. Courses that received extensive damage were built in low-lying areas through primary runoff areas that are unsuitable for real estate development. This is a common practice in Sun Belt areas where the majority of new golf courses are built in conjunction with real estate projects. With the high cost of land for development, the only land left for golf course development is marginal land. As land around the golf course is developed, runoff is increased and the only place for the water to move to is the golf course.

Unfortunately, many have not been engineered to handle the amount of

water they now receive. Because of this year's damage, many courses are now working to solve the problem. Courses are being reengineered to solve the runoff problem; drainageways are being deepened, widened and straightened. Holding capacity is being increased and silt deposits are being removed to provide positive flow. Hopefully, new developments will learn from this year's experience, and proper drainage will be provided as more marginal land sites are developed into golf courses.

Nematodes, and you must be kidding?

As if winter floods were not enough, we also experienced an unusual summer. Most Californians expect some hot temperatures in August and September. That's normal—right? What Californians don't expect is humidity. This year, we had humidity!

With the humidity came higher than normal disease activity. Summer diseases such as pythium, *Fusarium roseum*, *Helminthosporium leafspot*, and anthracnose were noted on many courses. Several courses also reported high populations of plant parasitic nematodes and had to implement control measures. In the past, nematodes have not been considered a significant

pest on turfgrasses in the West. With this year's high nematode populations on a number of courses, planning for next year probably should include a check of nematode populations. This is particularly true at courses that suffered disease activity. On courses reporting high nematode populations last year, there appeared to be an interaction between nematode and disease activity. Once nematode populations are reduced, significant reductions in disease activity were also achieved.

What about the future?

Perhaps one of the most significant trends on the West Coast is the use of effluent water for irrigation of golf courses. With each passing year we see more and more areas irrigated with reclaimed water. Because of our total reliance on irrigation for 6 to 8 months of the year, a reliable water source is imperative. With populations continuing to shift to Sun Belt regions, greater demands for potable water sources for domestic use are continuing. The percentage of this water available for irrigation purposes will continue to decrease. The demand for effluent water for turfgrass irrigation will, and should continue. No significant problems have occurred to-date.

A recurring topic that comes up during visits with golf course superintendents and club officials is economy. Ways to save money and keep playing conditions at the same level are constantly being sought. This is certainly one of the major challenges facing golf courses in our western region. A re-examination of our entire golf course maintenance operations is probably needed. No area that affects the budget should be considered sacred. In our region, the use of water on the golf course affects a great many of our budget items. Its use and misuse should be thoroughly evaluated at every golf course.

The West, perhaps more than any other part of the country, has more direct control over the water that is applied to a golf course. Because of this, courses in this area should be setting the example for other areas of the country in the efficient use of water. Not an easy job, but one that is long overdue. **GB**



The floods of last winter caused several courses to alter their drainage patterns, sometimes drastically.

