

## Addressing Shade Issues

By Pat Cross, regional director, West Region

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Based on visits from Los Angeles to central Mexico this past winter, there was no doubt that heavily shaded areas of golf courses sustained more turf injury and delayed recovery in the spring. Now is a good time to take a closer look at sun and shade patterns throughout the golf course and develop plans for tree pruning and selective tree removal so that that turf growth will be as vigorous as possible going into summer and the same problems can be avoided next winter.

Most turf species require at least eight hours of direct sunlight each day for healthy growth and development. Emphasis should be placed on insuring good early morning and midday sunlight by evaluating the eastern and southern sides of greens, tees, and fairway landing zones. Reducing shade in these areas will stimulate stronger turf growth, help dry the turf in the morning, and melt frost during the winter season.

Recognizing that the removal of trees can be a controversial issue, there are several tools available to identify specific trees that need to be addressed and communicate the rationale for these programs to owners and golfers. The following references and tools will be helpful as you evaluate sun/ shade patterns and develop your program for the coming year:



*Heavily shaded areas sustained more turf damage this winter and displayed slower recovery. Now is a good time to develop plans for tree pruning and selective tree removal so that that turf growth will be as vigorous as possible going into summer and the same problems can be avoided next winter.*

- Digital photography - take a digital photograph of areas where proposed tree removal will take place and erase the tree in the photograph using a computer program, such as Adobe Photoshop™. This can be an effective communication tool with the membership regarding the impact of tree removal on the appearance of specific areas of your course. Details on this process are available from the article [Crystal Ball: Using computer imaging to enhance project proposals](#).
- Aerial photograph or satellite imaging – When carefully analyzed, an aerial or satellite image of the golf course provides a revealing look at sun and shade patterns. One of the most popular websites for obtaining a satellite image is [Google Earth](#).
- Sun Seeker – This is an application for the iPhone™ that allows users to track the path of the sun at any given point on the golf course and evaluate objects that might be blocking sunlight. Details are available at the [Ozpda website](#).
- Computer modeling - Survey equipment in combination with specialized computer software can be used to determine the impact of removing specific trees or limbs of trees. Details on this process are available from the article [Using New Technology to Solve an Old Problem](#).

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