

TURF

GOLF GREEN
RENOVATION

PERLITE PLANT GUIDE

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RENOVATING GOLF GREENS WITH HORTICULTURE PERLITE

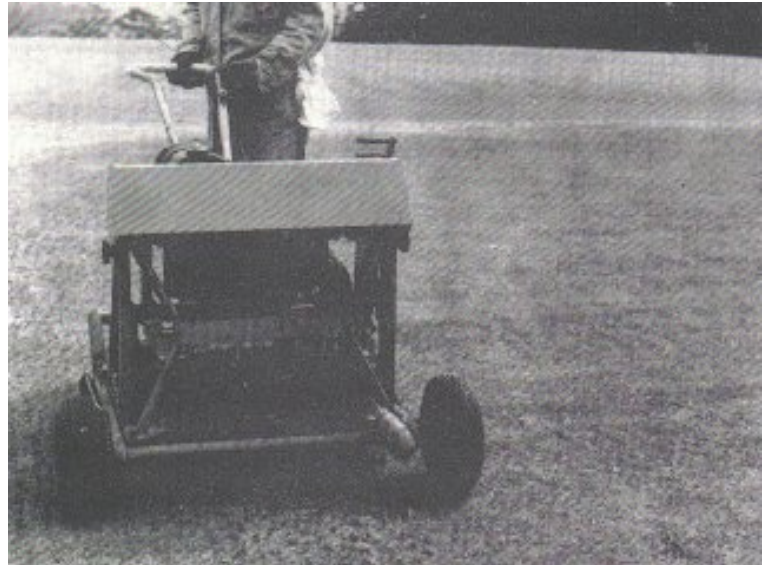
Golf Greens are among the most highly managed turf areas to be found. Not only are greens subject to the variables of nature, but greens must withstand compaction from concentrated foot traffic, exhibit infiltration rates sufficient to absorb heavy rainfall without ponding while still retaining water and nutrients for optimum turf growth. In addition, maintenance costs must be carefully monitored and there should be minimum interruption of play for golfers.

The Role of Perlite in Golf Greens

The unique physical characteristics of horticultural perlite make it an ideal material for renovating golf greens. When horticultural perlite is a constituent of the soil in golf greens, perlite particles interface with each other and other soil constituents to create air passages through the green. These air passages provide oxygen to turf roots which is essential for good turf growth. In addition, these air passages permit excessive water to drain rapidly thus eliminating ponding and allowing play to proceed sooner following heavy rain. In addition, the horticultural perlite eliminates soggy greens which can be easily damaged. Although horticultural perlite aids drainage, the unique surface configuration of perlite particles enable horticultural perlite to retain an optimum amount of water on their surfaces. This surface configuration retains water and water soluble nutrients making it available to the turf as needed.

Renovating Greens

Ideally, the best method of incorporating horticultural perlite into golf greens is as the greens are being constructed. There are literally thousands of existing greens however, that can take advantage of the benefits of horticultural perlite through a renovation procedure.



To renovate a golf green with horticultural perlite, plugs of turf 3/4 inch (2cm) in diameter and 10-12 inches (26-31 cm) long, spaced on 4 inch (10cm) centers are removed from the green.

"Since applying perlite we have noticed improved drainage and compaction in our most difficult greens and better moisture retention in all of our greens."

Ron Bivins
Assistant Golf Course Superintendent
Salisbury Country Club
Salisbury, North Carolina

In one technique used to renovate a golf green with horticultural perlite, plugs of turf 3/4 inch (2cm) in diameter and 10-12 inches (26-31cm) long, spaced on 4 inch (10cm) centers, are removed from the green. Turf plugs and plug debris should be thoroughly removed so that plug holes are not subsequently refilled by this material.



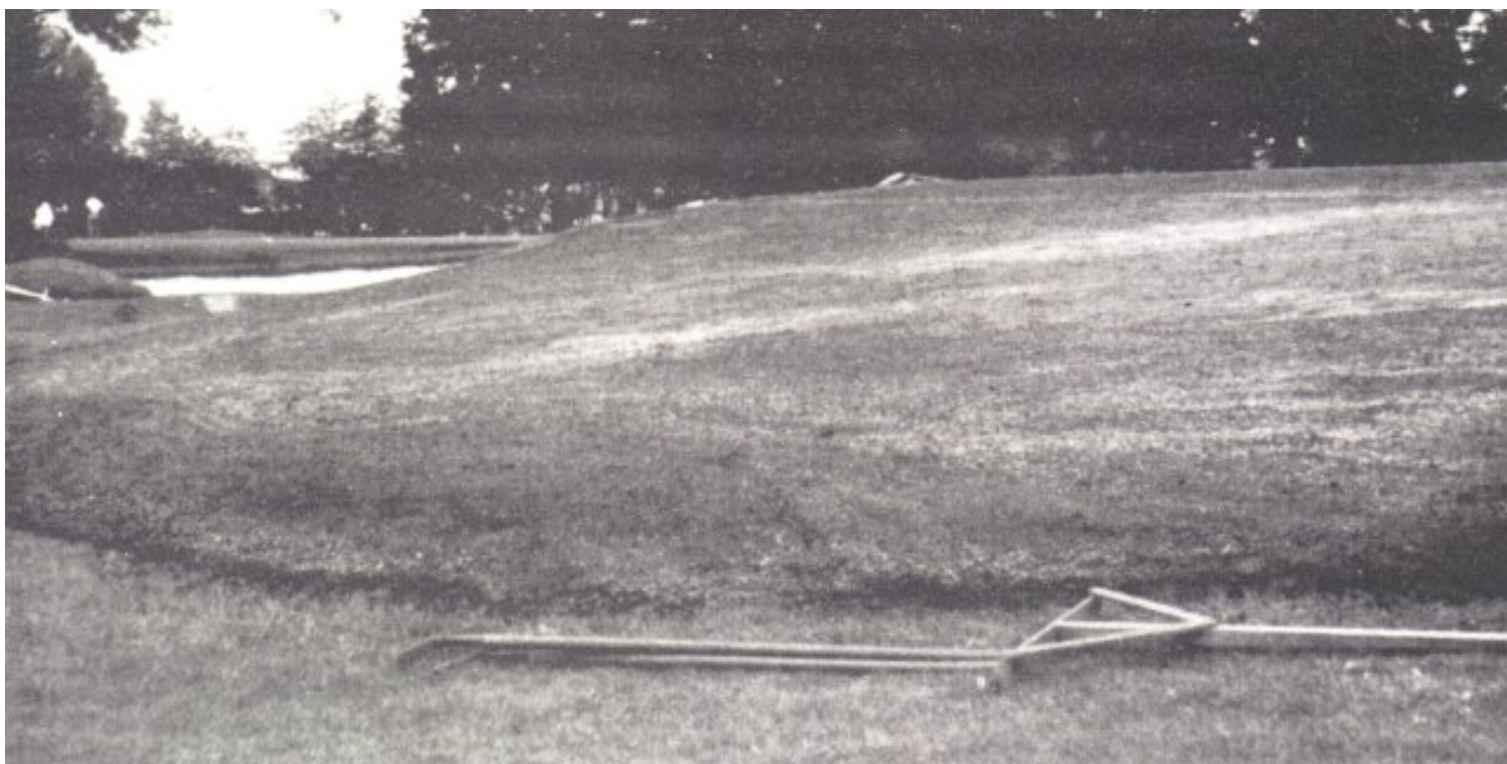
Following removal of turf plugs, plug debris is thoroughly removed so that plug holes are not subsequently refilled by this material.

Horticultural perlite is then spread on the green and swept into the plug holes until the holes are approximately 1/3 full. In the final stage, sand is spread over the green and swept into the plug holes until they are filled. As a result of play, irrigation and rainfall, the horticultural perlite will migrate into the soil



Following clean-up of plug material, horticultural perlite is spread on the green and swept into the plug holes until the holes are 1/3 full.

surrounding the plug holes to completely treat the green. As horticultural perlite is an inorganic material, it will not rot or deteriorate in the soil but will continue to perform year-after-year. Actual years of service before another treatment is required will depend on many factors such as amount of play, soil structure, irrigation and rainfall.



After plug holes are 1/3 filled with horticultural perlite, sand is spread over the green and swept into the plug holes until they are filled. As a result of play, irrigation, and rainfall the horticultural perlite will migrate into the soil surrounding the plug holes to completely treat the green.