Q: What would you suggest for sand topdressing to correct clay greens in a heavy rainfall climate?

A: If you really want to correct your clay greens, you should rebuild them. If you don’t want to rebuild, you can try methods of improving clay greens which may reduce the severity of the clay/high rainfall problem.

Basically, the small size and shape of clay particles allow them to fit so closely together that the space between the particles is very small. Only marginal amounts of nongravitational water and air are held by the green to support plant growth.

In preparing green mixes, we try to achieve 30 percent air spaces, 20 percent water spaces, and 50 percent solids after the green has been compacted, soaked, and allowed to dry 24 hours. To achieve this mixture, silt and clay particles are excluded in most instances resulting in essentially soil-less greens composed of only sand and organic matter. Furthermore, excess water from rainfall or irrigation should be able to percolate downward to be carried off by drain tile placed in the green subgrade on 15-ft. centers.

To dilute the effects of clay requires massive amounts of sand. Your program should be geared to applying as much sand as possible without injuring the existing turf. Your greens will not need additional organic matter if you have any mat layer at all.

In the cool times of the year aerify with as large of tine as possible and to the greatest depth possible. Remove the plugs and topdress with pure washed, medium sand (particles 1 mm or smaller). Apply roughly 1/4 in. of sand each time you topdress and aerify. Brush the sand into the holes and thatch layer. Do this as often as possible during the cool, actively growing periods. During hotter periods of slow turf growth, carefully topdress every three weeks or so with about 1/16 in. of plain sand.

Continue to aerify and topdress with sand until a six to eight-in. layer of sand has accumulated. This may take many years. Many superintendents have found a rotary, pull-behind fertilizer spreader equipped with a sand ring insert as a good way to apply the sand.

Heed these points of caution:
—sand must be proper size,
—sand should be neutral to slightly acid pH,
—apply adequate micronutrients,
—adjust watering practices as sand builds up,
—only apply as much sand as can be worked into the mat layer,
—topdress only when turf is actively growing.

The Tee-2-Green Corp., 1212 W. 8th St., Kansas City, Mo. 64101, has a free publication on sand topdressing available. Titled “Problems or Progress,” it can be a great aid to any greens chairman considering a sand topdressing program. WTT