NEW STRATEGIES FOR BENTGRASS FAIRWAY RENOVATION Zac Reicher Department of Agronomy Purdue University

Creeping bentgrass has emerged as the most well-adapted species for golf course fairways in the Midwest. Perennial ryegrass requires tremendous inputs because of its disease and winterkill susceptibility, plus it is a bunch grass requiring annual overseeding for optimum performance. The new Kentucky bluegrasses show some promise, but best performance is achieved at mowing heights above one inch, higher than most golfers prefer. By default, annual bluegrass (Poa annua) is used in many fairways but suffers from winterkill, many summer diseases, and poor visual quality during seedhead production. Creeping bentgrass provides an excellent playing surface, reduced disease problems, and reduced maintenance inputs compared to the other grasses. However, conversion of current fairways to creeping bentgrass is often hampered by infestation of annual bluegrass at the time of seeding. Earlier, we attempted gradually converting a Poa annua fairway by overseeding with creeping bentgrass on an annual basis. But the aggressiveness of Poa annua limits the success of this method. We are currently evaluating two techniques for successful conversion. The first method is the application of Basamid (BASF) as a soil sterilant prior to seeding to minimize the Poa annua seed in the soil. After limited success in the spring, a fall study produced excellent results and Basamid shows tremendous promise for renovating fairways. Also we are experimenting with Dimension applied over the top of seedling turf. The objective of the Dimension application is to apply it early enough after bentgrass germination to limit Poa annua emergence, but not too early that it damages the bentgrass seedlings. Dimension works effectively to control Poa annua while not damaging the seedlings. However, this strategy depends on seeding in late summer (August) when bentgrass will germinate rapidly and Poa annua might germinate slightly slower and/or later. This strategy will probably become more effective as we move south where there is a larger window between the period of maximum creeping bentgrass germination and the period of maximum Poa annua germination in the late summer.