



## Best Seeding Date for Establishment of Zoysiagrass In Chicago

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**Goal:** Determine the best date to seed zoysiagrass on a teebox in Chicago given environmental conditions that provide a short summer period for warm-season turfgrasses.

**Location:** Number 3 teebox (farthest from green) on Sunshine Course in Lemont, Illinois.

**Background:** Zoysiagrass (*Zoysia japonica*) is extensively used in the transition zone of the United States. It is a warm-season turfgrass that is heat and drought tolerant. Zoysiagrass has excellent resistance to a majority of diseases and includes dollar spot (*Sclerotinia homoeocarpa*), but is known to be susceptible to large patch (*Rhizoctonia solani* LP). Zoysiagrass has advantages for use on specialized golf surfaces (tees and bunker faces). Zoysiagrass is a true low input turf that requires less water, fertility and pesticides. It has high levels of silica and lignin in plant tissue which makes stems and leaves tough and stiff – good characteristics for golf. In northern Illinois zoysiagrass use remains limited because a relatively short growing season exists during summer and this means it will be dormant for long periods.

**Brief Material and Methods:** A total of 5 treatments will be established in 5 ft. x 5 ft. plots with the first on 22 September. The study is a randomized complete block design with 4 replications. The trial's location in Chicago was selected to help understand what date is best for establishment by seed. Hand seeding without raking in will take place at a rate of 3 lbs per 1000 ft<sup>2</sup> using 'Zenith' zoysiagrass. Plots will be managed at a height of 1.5 inches and irrigated as needed. Seedling vigor, percent establishment, and visual quality will be taken in 2010-2011.

### Expected Results:

- We expect good establishment using a traditional seeding date of 1 June.
- A September seeding date is expected to fail as new seedlings may not survive winter.
- Dormant seeding dates on October 31 (fall) or April 1 (spring) may favor establishment. (Prior SIU research indicates this strategy can provide good germination/establishment)
- Seeding will be compared to establishment by sod strips (4 inches wide set 1 foot apart).

Table 1. Trts: 'Zenith' zoysiagrass establishment study, 3 teebox Sunshine Course, Lemont, IL.

Treatment number	Type	Seeding Date
1	Fall	22-Sep
2	Dormant (fall)	31-Oct
3	Dormant (spring)	1-Apr
4	Summer	1-Jun
5	Sod strips	1-Jun

Figure 1. Map: 'Zenith' zoysiagrass establishment study, 3 teebox Sunshine Course, Lemont, IL.

Block 1	Block 2	Block 3	Block 4
3	2	3	2
5	1	4	1
1	4	5	4
2	3	1	5
4	5	2	3

