

## Choosing a zoysia establishment program

If a golf course decides to establish zoysia fairways, there are five basic programs that can be followed. The program that is finally chosen generally depends on how much money can be spent each year for the program, how much the golfers are to be inconvenienced and how quickly the course wants zoysia fairways. The basic programs are:

**1 Plugging** - This technique is the one most used by homeowners. On golf courses, it was used early on when the first fairways were being established to zoysia. It is still being used today. Small areas can be effectively plugged by hand and there are even commercial companies that will plug larger acreages on a contract basis. The plugs are usually two to four inches in diameter and are generally planted on approximately 12-inch centers.

**2 Strip Sodding** - This procedure is probably the most used today on golf courses that want to establish zoysia as quickly as possible. It basically involves removing four to 12 inch strips of existing turf and replacing it with a corresponding width of zoysia sod. The sod strips are planted on 12-16 inch centers. Obviously, the closer the rows are planted, the faster the zoysia will spread and vice-versa. By the nature of this program, establishment time for strip sodding is usually faster than plugging. You simply are putting more zoysia into an area.

Because of the amount of zoysia sod required to do an area using this technique, it is also the most expensive of the zoysia establishment

programs. However, by planting a strip of sod into an area, it is one of the most sure and effective programs in use today. (Note: Both strip sodding and plugging can be done during the active growing period of the zoysia. There also have been reports of success using plantings of dormant zoysia strips and plugs).

**3 Row Planting** - This is a relatively new and somewhat still experimental technique of establishing zoysia fairways. So far, results to date on those courses that have tried this planting technique have been extremely encouraging. Hyde Park Golf and Country Club of Louisville, KY, have utilized this planting technique on all of its fairways. Basically, continuous rows on 12-inch centers four to five inches deep are cut into the soil using a row planting machine and shredded sprigs are inserted into the groove. The groove is mechanically closed by this same planting machine and the area is ready for post-plant care.

As far as can be determined now, for large acreages, this procedure promises to offer an alternative to the more traditional programs of plugging and strip sodding. This planting procedure is done on a contract basis.

**4 Hydrostolonizing** - Although initially used to establish zoysia on some fairways at Bellerive Country Club and Old Warson Country Club, this technique is now mostly used only on new golf courses being planted, on establishing zoysia nurseries or on limited areas that can be

taken out of play and given time to establish. Zoysia sprigs are shredded, mixed with water (sometimes containing fertilizer) a binder and a mulch. This combination is sprayed onto bare soil followed by careful post-plant care especially as relates to irrigation. By the very nature of this program, it is quite disruptive to play and thus only now used on specific locations and in specific situations.

**5 Seed** - Through the efforts of Dr. Herbert Portz and his team at Southern Illinois University in Carbondale, IL, zoysia seed is now available. By a specially-developed process of ultraviolet light and soaking seed in a potassium or sodium hydroxide solution, formerly difficult to germinate zoysia grass seed will germinate.

The seed is fairly expensive and is somewhat slow to establish. The grass itself is fairly coarse once established, but this is the first time zoysia from seed is available to the industry. The zoysia seed that is now available has limited usage on fairways due to its coarseness and width of leaf and its slowness to establish with competition from other grasses. As it is now, using known establishment techniques, zoysia seed has not been very successfully overseeded into an existing turf.

It is important to remember that this is the first step towards a seeded variety of zoysia. Research on improved zoysia from seed is ongoing. For now, this coarser type of zoysia has potential usages as a rough grass, for bunker mounds, tee banks, etc. **WTT**