

# THE BEST TURF TIPS OF 1994

## Seed Storage: Protect Your Investment

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**Q**UALITY TURF begins with quality seed. Research has shown that the manner in which grass seed is stored can greatly influence establishment rates, percent germination and seedling vigor. Storing seed in a cool, dry environment can prolong the high germination percentages that are commonly reported on the seed label. Whether overseeding tees, the practice area, or fairway divots, a common link for good results is utilizing seed that will germinate rapidly to fill in voids and reestablish the playing surface.

Normally, quality grass seed is purchased and then stored in an area of the maintenance center in anticipation of utilizing that seed in the future. Seed purchases usually take place well in advance of actual use, often due to the limited availability of the specific varieties of seed the turf manager desires.

Unfortunately, seed stored in an out-of-the-way place often is mixed with older seed lots, exposed to environmental fluctuations (such as humidity, which reduces germination rates), or can even become food for rodents. There are better ways to store seed than to simply throw it in the corner or in plastic trash cans. Controlling these variables is the topic of this turf tip. Think of it as the same proactive approach so often employed for turf machinery — preventative maintenance — but utilized for seed storage.

Bruce Cadenelli, golf course superintendent at Caves Valley Golf Club, located in a suburb of Baltimore, Maryland, had the opportunity to help design his maintenance facility. A key feature was an enclosed topdressing storage area. This area keeps the topdressing dry, which facilitates weekly applications to the putting green surfaces and in preparing seed/soil mixtures. At the back of the topdressing storage area, a seed storage locker was also constructed. The structure was completed by utilizing the carpentry talents of a staff member and an investment of about \$1,500 in building materials. The dimensions are 16 feet long by 4 feet deep by 8 feet high. The large double doors, each five feet wide, allow for easy handling when preparing divot mix or replenishing seed inventories. Due to intensive overseeding programs throughout the

course, large quantities of seed pass through the seed storage locker. Easy access also helps the staff practice proper inventory control (first in/first out). Inventory control is critical, especially for the newer varieties of perennial ryegrass enhanced with endophytes.

The inside of the seed storage locker was covered with sheet metal. This greatly reduces the chance of mice climbing inside and nesting or feeding on the seed. Vents were installed at the top of each end of the locker to allow for positive air flow. Steady air flow helps minimize potential moisture fluctuations that can affect seed viability. The vents were covered with medium-gauge wire mesh to prevent rodents from invading the seed reserves. Also, the storage locker was built several feet above floor level, allowing large quantities of topdressing to be delivered and stored without blocking the doors of the seed storage locker.

After the seed and topdressing are combined, the mix is transferred to a storage

bin located in the equipment storage area. The topdressing/seed mixture bin is filled daily. Staff members have easy access to divot mix containing quality seed. Filling divots with a mixture containing rapidly germinating seed can reduce weed establishment. As we all know, the first line of defense against weed invasion is strong, healthy turf.

There are many ways to store and manage seed inventories. Some are better than others. When turf loss is experienced, whether large or small, viable and rapidly germinating seed is important. To help insure quick establishment and seedling vigor, seed handling and storage should not be overlooked. Annual investments in quality seed are often quite high, so proper storage techniques are important to protect that investment.

Examine your current seed storage procedures. If improvements are in order, consider Bruce's strategy. Protect the integrity and quality of your seed by improving your seed storage techniques.

*The doors on the seed storage locker were designed to allow for easy access. The interior was covered with a light-gauge metal sheeting, which greatly reduces the potential for rodent invasion.*

