ANOTHER GREAT QUOTE ABOUT CENTURY GOLF TEAM!

CENTURY SAVED THE PROJECT. THEY REDESIGNED IT IN ONE WEEK SO WE LOST NO TIME ON THE JOB.

*From 100 percent trees to a developed golf course in nine months is incredible.

"We couldn't have done it without Century.

"They came through in the clutch and hit a home run



... and they saved us \$230,000 in labor and materials costs.**

Harry Bowers Golf Course Designer Domino's Lodge Golf Course Drummond Island, Michigan

Want to get a great quote on your course's irrigation system? Call Century Golf Team today!



5379 WALNUT AVE. DOWNERS GROVE, IL. 70515-4178 312 515-8555 341 LIVELY BLVD. ELK GROVE VILLAGE, IL. 70007-207 312 640-6660

Reach, Speed & Stability



Ford New Holland "Super Boom" skid-steer loaders do more for you:

- * Reach Loads center of six-wheel dump.
- * Speed Faster cycle times, speeds up loading/unloading operations.
- * Stability Longer wheelbase with low center of gravity.

MARTIN IMPLEMENT SALES, INC. 16400 S. 104th Ave. Orland Park, IL 60462 (312) 349-8430



New Turfgrass Variety Cost

by Arden Jacklin Jacklin Seed Company

Most people, including myself at times, have no conception of what it costs to develop, test and introduce a new variety of turfgrass. My figures here are mostly based on Kentucky bluegrass, as this is the kind with which I am most familiar.

Let's start with a new selection or a new hybrid which has passed the first screening and is ready for more extensive testing. That first screening costs about \$500 for each entry. Of all entries, about 10% pass the first screening. So, we start with a \$5,000 cost on each entry which does not include the cost for getting it.

Two-Thirds Fail

Preliminary testing for turf quality and seed producing ability in our plots run about \$4,000 per accession. A fair appraisal shows about two-thirds of the accessions fail in this test. So the investment in this test is \$12,000.

The next step is advanced turf and disease resistance in both western and eastern US. Eastern testing is necessary because in the West we don't have all the diseases that affect turf in the largest (easter) consumption area. These tests will cost about \$5,000 per entry. Assuming an average of two-thirds will fail to show promise, we come up with \$15,000 per successful accession.

National Testing Important

So far, it's only our word that it's a good or superior variety. Therefore, it's necessary to give it wider and more open public testing in the National Variety Testing trials which involve some 30 testing sites. The charge is \$1,800 for a 3-year test. In our experience about one-third will fail, generating a cost of \$2,700 per accession. At this point, still an experimental number yet to be registered as a named variety, we have a total investment of \$34,700 in it.

It is now time to produce breeder seed from which foundation will be produced. Breeder seed fields or plots are small, requiring much work at high cost. An arbitrary cost well above what the seed can be resold for or charged out is about \$4,000.

Plant Variety Protection

Next it is advisable, if not entirely necessary, to "insure" ownership by protecting rights to and registering of the variety. This is done through the PVP (Plant Variety Protection) process which for bluegrass costs \$2,000 per entry. Gathering information for submission on a PVP application costs an estimated \$3,000. The same data for PVP can be used to register the variety with the American Society of Agronomy and provide data to the various state certifying agencies for their certification standards.

The variety must be advertised and promoted to get potential customers and promote themselves in their markets. We have good cost figures here. We average \$30,000 per variety for first-year promotion, which includes magazines, in-house publications, convention displays, advertising brochures and favors.

A Whopping Total

The grand total is \$73,700. That's a lot of money! To back up or justify that kind of investment requires an ongoing, aggressive marketing setup to reclaim it. Not too many companies will take the gamble, and it practically rules out public agency

(cont'd. page 16)

(Turfgrass Variety Cost cont'd.)

releases. Conversely, when an accession succeeds and is properly marketed, it becomes a valuable asset.

The foregoing does not include the "ability to do the job" in terms of technical know-how, knowledgeable personnel at each level of development and suitable land sites. Also required are small lot seed processing equipment and plot machinery. Obviously a development program for more than one, or even a few varieties, must operate on a continuing basis for reclaiming costs.

The time frame to go through the foregoing process averages about ten years.

Source: Grass Clippings (Jacklin Seed Company)

Part #18-7530

by Tony Rzadzki, Asst. Supt. Cantigny Golf Club

Many of us have Toro Sand Pros. I'm sure by now, unless you have a machine less than one year old, that you have replaced part #18-7530 or it's counterpart #18-7550 (Inc. Ref. #390).

Since we officially opened this past June, our machines have been used daily as opposed to the occasional use two years prior. I had forgotten how often this little bar with it's unique pivot ball breaks. I imagine that this pivot feature is quite essential in some engineer's mind. Well maybe it is, but when your machine is chronically down and you are waiting for a part that breaks as consistently as the sunrise; then "the mother of invention" must step in.

Last month as usual, I wasn't told that part #18-7530 had failed once again. It was 6 in the morning and a Sunday too! I told my operator to go — find something to do — and come back in half an hour.

What usually happens to part #18-7530 is that the pivot ball assembly pulls loose of the bar and remains bolted in the rake head or main bracket, leaving the rake assembly dangling there. Well in a half an hour part #18-7530 was history. We don't even replace it or stock it anymore.

Take the bar off of the machine, and drill out a 21/64" with a 5/16" x 2" bolt. That's it. Place washers where the bar will pivot against the rake and double nut or lock nut the bolt snugly but loose enough to still move and pivot the rake as it should.

By the way, the pivot ball assembly (without the ball in it) is very hard steel. Be sure that your drill bits are sharp and drill slow. Be patient, the money that you'll save is worth a little extra time in the shop.

Maybe if enough of us do not need to buy part #18-7530 then the Toro engineers will redesign this part. Then maybe our future children (or grandchildren, knowing how expedient Toro engineers are) can benefit from our endeavors.

If you have any questions feel free to call anytime, 668-3323, ext. 502.

