

## **SPORTS TURF TOOLS OF THE TRADE**

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It is well known that those of us in the Sports Turf industry are often by budget necessity, great inventors in our own rights. I have the privilege to share with you today, some of the great inventions/ modifications that some of our MiSTMA members have come up with over the last few years. It is my hope that these tools and ideas will further inspire some of you to share with us the ideas, inventions, and modifications that you have come up with over the years to help you get the job done at your facilities.

The first turf tool was submitted by Nathan Johnson at Grace Bible College. A special aerator was modified by Jim Nammensma at Ebling and Son Inc. in Grand Rapids. The aerator is a Millcreek Mdl 640 core aerator purchased for \$1,700 to fit onto a FC-33 out front mower that was modified for \$1,200. Ebling designed, fabricated, cut, drilled, welded and painted the arms on the Massey FC-33 unit as well as added a 500 lb. weight to the package to improve the soil penetration. You can contact Nathan at Grace Bible College at (616) 538-0599 if you have any questions about this excellent tool.

The next set of tools comes to us courtesy of Matt McQuaid of the Department of Parks and Recreation in Petoskey. Matt submitted 4 tools, so let's look at the 10" mound gage first. Matt states that this tool was inspired by an idea he got from Heather Nabonzy of the Detroit Tigers when he did his internship with her. The cost was \$50.00 and he built it out of a 2" x 2" x 10' Aluminum Story pole, 3' of electrical conduit for the legs, a 3" line level, 6-10" x 3/8" lag bolts and 12- 3/8" washers and nuts. Matt also submitted a 6' mound gage he designed at built for approximately \$15.00 using a 6' piece of aluminum Bathroom Stall frame, bent steel for the legs, a 3" line level as well as some 8" lag bolts with the washers and nuts.

The third tool that Matt submitted was a Hose Reel for the 1" hose that was used on the baseball field. He found an old electric wire spool in the dumpster, mounted it on an utility trailer that he had and by adding a 3" steel pole, some u-clamps as well as some bolts, washers and nuts, he saved lots of money for this set up. Matt reported that he only spent \$20.00 for this set up and commercially he has seen them sell for anywhere from \$300. to \$500.00.

Lastly, Matt submitted pictures of a batters box template he designed and built. The cost was \$40.00 and the materials consisted of 18" of 1" x 4" pine board, 8 angle braces, 2 handles, and drywall screws. Matt recommends that you not use wolmanized lumber due the extra weight it would add. You can contact Matt at (231) 347-6637 if you have any questions.

Tom Prenkert, the manager of Landscape Operations at Central Michigan University submitted his design for field layout jig that allows 2 people to lay out 3 fields in 1 ½ hours. It consists of 800 ft. of 3/32" vinyl-coated cable with a 3/16" outside diameter, thimble ends, and hourglass sleeves to indicate the 5-yard lines and hash marks. The total cost was \$132.60 and it only took 1 ½ hours to construct it. According to Tom, the jig is designed to provide a field of 300' by 160' and to be square. First, you lay out the 300' side ( pin one end of the 300' line), at the end

of the 160' that isn't attached to the 300" line that isn't attached to the 300' line; you place the 340' line. Make sure your 300' line is tight and pinned down, then draw your 160' line tight, then bring the open end of the 340' side to the opposite corner of the 300' side and tighten. If all lines are tight, you will have a right angle. Then just put a paint mark at the corners, 5-yard and hash mark sleeves. Then switch the 160' line to the other end and the 300' line to the other side and duplicate the process. All that's left is to connect the dots with string and paint.

The last 2 tools that I want to show you today come from Ferris State University. Several groundsman and motor pool mechanics brainstormed to produce these highly effective tools for us. The first one is a 100 gal. slide in spray unit with a 100' hose reel as well as a 12' collapsible boom that fits into a slightly modified Toro Workman. Some of the other features that make this unit so operator friendly is the front storage box, the wheels on the back, as well as the one piece electrical hook up that controls the solenoids on the boom and reel units. The 4 hp engine as well as the pump itself were salvaged off of a truck mounted 200 gal. spray unit that was too impractical to take out on soggy lawns early in the spring as well as late in the fall when the bulk of our broadleaf spraying is done. Total cost of this spray unit and the minor modifications that were made to the Toro Workman amounted to \$ 800.00. Dan Grit and Tom Worth were responsible for this excellent piece of machinery. They can be reached at (231) -591-2920.

Finally, we will look at a field-lining unit that was fabricated for painting the numerous football practice, softball, rugby, and soccer fields that we have on our campus. A 25 gal. plastic tank, electric pump and a 2 gal. bladder tank are the guts of this invention. This unit hooks up to the 12-volt battery on the Textron EZ-GO and feeds a double nozzle head that was supplied by Pioneer Paint. This unit allows us to repaint one practice football field in less than one hour, whereas when they relined the fields by pushing our old 7 gal. compressed air sprayer, it took almost 6 to 8 hours to complete the task. The total cost was approximately \$600. Gerald Battle and Mike Kelly were responsible for designing and building this labor saving device. I might also mention that these pieces of equipment were demonstrated to the Board of Trustees president which prompted him to recognize all the parties involved with a sub sandwich and soda pop luncheon as well as a certificate for their contributions to improving the way things are done at Ferris State University.