

# Doc's Dugout - An Inning From Our Past & Present (Part II)

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## The Innovative Contributions to Sports Turf by Tom Mascaro

As busy sports turf managers, we don't always realize that many of the innovations and ideas that we take for granted today were molded by the hands of creative craftsmen, nourished through the persistence of people with vision and energy and encouraged by a private enterprise system that inspires and motivates individuals to think and be creative. Tom Mascaro was one such individual. Tom held all of these virtues, "and then some," and left his fellow sports turf managers with new and challenging turfgrass equipment and an array of tools to diagnose turfgrass and soil problems. Hopefully, he touched a handful of individuals who will be able to grasp his success and pass his work ethic, creativity and enthusiasm on in the form of future innovations, equipment and significant contributions to make the sports turf industry more effective and efficient in the 21st century.

Here are a few of Tom's contributions to the industry:

### AERIFIER

In 1946, Tom Mascaro invented and patented the first practical turfgrass cultivating machine which removed one-inch cores without disturbing the playing surface. This device contributed to the acceleration and expansion of the turfgrass industry and was paramount in meeting the rising costs and uncertain labor market. It was called the "aerifier," which was also a name he copyrighted. The aerifier, known as the F. G. Aerifier, was manufactured by Tom's company, Westpoint Products Corporation. This machine utilized spoons that scooped out soil and cultivated beneath the sod. After the machine removed the soil core, a loosened pocket remained to receive water and topdressing material and encouraged gaseous exchange. According to the late Fred Grau (1986), "the aerifier was a godsend. The roots and nutrients went deeper, grass seedlings growing in aerification holes resisted traffic abuse, and athletic fields were softer and safer." Tom went on to design and produce a self-propelled aerifier known as the G.L. for golf greens in 1949, and in 1955 designed a 6-foot wide aerifier for athletic fields and golf course fairways.

### VERTICUT & VERTI-GROOVE

In 1952, Tom designed the first popular "Verticut" to remove thatch from golf greens. This concept improved the golfers' putting surface as well as the health of the greens. A year later, Tom introduced the triplex, gang verticut for large areas like football fields. In 1970, he designed a riding triplex greens mower with the first interchangeable heads for a tee mower, verticut reels, and a vibrating spiker. In 1980, Tom invented a machine called the "Turf-Tec Verti-groove" that removes a slice of the soil profile on the field 1/2-inch

wide and 6-inches deep in a continuous step. It was first used at the Orange Bowl to remove soil layers and improve the drainage of the field. It included an attachment to close the top of the groove for minimal surface damage.

### And Now the Rest of the Story

Although Tom was best known for these three pieces of equipment, he was also instrumental in several lesser known innovations some of which are briefly discussed below:

**CrabErad** - was introduced as the first acceptable control for crabgrass. It consisted of DSMA, (disodium methyl arsenate), and was a post-emergence control for weedy areas not treated with a pre-emergence herbicide. It was widely used in the 1950's through the 1970's.

**Grass-Cel Paver** - is a high impact plastic interchangeable paver with cells for grass to grow in and is placed in high traffic areas such as walkways, ends of golf cart paths and other heavily trodden areas. (1979)

**Battery-powered mower** - In 1959, Tom redesigned an Atco mower from England into a two-speed battery powered mower. He designed into the mower a system to store enough energy to transport and mow from three to four greens. The copyright name, "West Point Lector."

**Diagnostic Turfgrass Instruments** - In 1986, he joined his son, John, in a new company known as Turf-Tec International and designed instruments for sports turf managers and golf course superintendents. The instruments are devised to obtain factual information in order to make very important decisions regarding the soil and turf on athletic fields. Some of the most popular instruments include the following: Field moisture sensor, field thermometer, penetrometer, soil profile sampler, field pH meter, field infiltrometer, nitrate/nitrogen tissue test kit, soil porosity spot test and soil profile preservers. All of these instruments are marketed by Turf-Tec International which is still run by John Mascaro, Tom's son.

Tom will be sorely missed in the sports turf industry but he will always be remembered by the field managers who aerify and/or verticut their turf to restore and invigorate the grass on their facilities. Tom was a fine gentleman, friend, colleague, innovator, and a man with a vision to make the job and life of the ordinary grounds person a little easier and a little better. He wanted everyone to have an aesthetically pleasing sports field and one that was stable and safe for the participants. Tom will live on in the minds of those he touched and his legacy will continue for years to come.

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