

HOW FAST ARE YOUR GREENS?

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WHEN viewing play in tournament competition, one thing stands out above all else — the variability of greens between courses and some times between greens on the same course. This could be caused by many things — variability in terrain, slope, turf cover, grain, thatch, fertility and management programs, height of cut, cutting frequency, etc. In order for any course to be a super test, greens should be uniform! Superior greens reduce the element of luck to a minimum and putting becomes a true test of skill — the player's ability to read the green, and his ability to stroke the putt as his mind dictates. This is as it should be!

How can speed be measured? Simply! With a device called the USGA Speedstick, a variation of the Stimp Meter, originated by Edward S. Stimpson. In an article that appeared in the April, 1974, issue of *The Golf Journal*. Mr. Stimpson stated his reasons for developing his Stimp Meter as follows:

"The Rules of Golf define the ball, the hole, and the form and make of clubs. Yet no standard is set for the speed of putting greens. A large percentage of strokes are taken on the green and there is great variation in the speed of greens where competitive golf is played. There is also great variation in the condition of greens where holes are placed. I believe there is a need to establish quantitative *limits* to certain conditions, still recognizing that growing grass can never be given an absolute measurement."

"The Stimp Meter is a device that quantitatively measures the speed of putting greens. Numbers can be assigned to the speed of greens on the level, and numbers can be given to the uphill and downhill conditions where holes are placed. After numbers are known, conditions can be compared, experience discussed, and goals established. Perhaps limits can be defined, sought, and attained."

The USGA's Speedstick is designed to achieve some of the above very legitimate goals.

The Speedstick is a simple device. It is a carefully honed piece of wood with a "v"-grooved runway and a notch which serves as the starting point of roll — extremely simple, consistent and it can be used by anyone. It provides a quick representative speed reading of a green. All that is required are three regular-size-dimpled or small-dimpled golf balls, a measuring tape and the USGA official Speedstick; then follow this procedure:

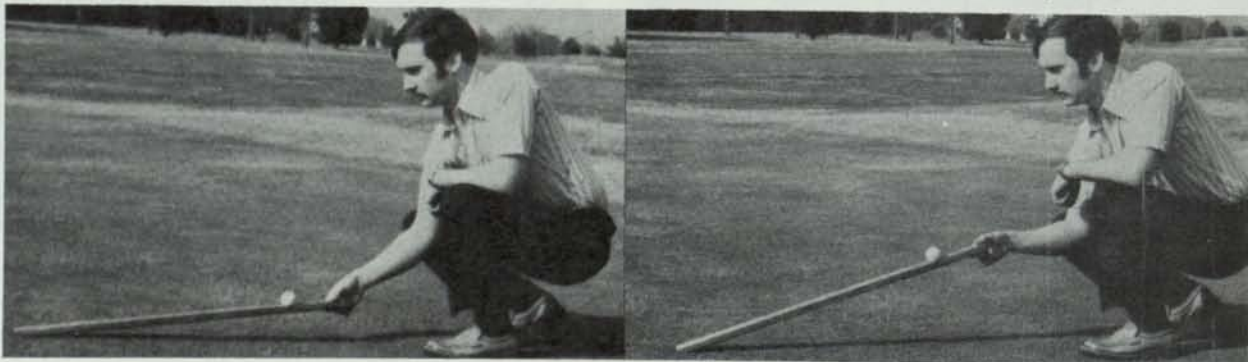
- 1) Select what appears to be a level area on the putting surface approximately 10 feet square and representative of the green's texture.
- 2) Roll three balls in one direction from the same starting point.
- 3) Measure the average distance.
- 4) Reverse direction 180 degrees and repeat steps (2) and (3) from a point close to where the first three balls stopped.
- 5) Average the speed figure for each direction.

If the difference of the averages measured above is greater than approximately 25 per cent of the shortest distance or if the balls had a curving path prior to coming to rest, it would then be advisable to repeat steps (2), (3) and (4), rolling the ball at 90 degrees to the original path and across the middle of it. If this is done, the measurements in all four directions can be used to determine the average speed of that green. This takes into account a number of the variables which should be considered in this type of measurement.

The above should be performed on each green of the golf course, including the practice green, and accurate records kept regarding the time, date, and when, how, and at what height was the previous cutting.

The USGA Green Section, with the cooperation of course superintendents in more than 35 states, measured more than 750 greens in 1976. Analysis of this data has resulted in the development of a

As the Speedstick is slowly raised the ball is released to travel down it and across the putting surface.



USGA Comparison Chart of green speeds considered to be in regular membership play condition, as follows:

**USGA GREEN SPEED TEST
COMPARISON TABLE**

(Regular Membership Play)

FAST	8' 6"
MEDIUM-FAST	7' 6"
MEDIUM	6' 6"
MEDIUM-SLOW	5' 6"
SLOW	4' 6"

A provisional table has also been developed for courses in tournament condition. This chart may require revision at some future date as the data used to develop it is limited and insufficient to be considered totally reliable. However, this is being printed for general information purposes.

**USGA GREEN SPEED TEST
COMPARISON TABLE**

(Tournament Conditions)

FAST	10' 6"
MEDIUM-FAST	9' 6"
MEDIUM	8' 6"
MEDIUM-SLOW	7' 6"
SLOW	6' 6"

The reason for the differences in the two tables is that fast greens are considered to be a better test of one's skills and in general eliminate some of the many variables one experiences on a putting surface. However, to consistently maintain a green in championship or tournament play conditions is an extremely time-consuming and costly project. One would therefore not expect to find greens on a particular course to be in tournament shape throughout the season.

It should be clearly emphasized that this instrument and test procedure is not for use by the golfer, but purely to be used by the course superintendent to assist him in maintaining consistency among the greens on his course and provide him with numerical data against which to compare and measure his greens. The Speedstick is your speedo-

meter! With it, you can set your green speed at any level that your membership desires.

The by-products of having an instrument to measure a green condition may be very far-reaching. Seasonal changes may be observed and the effects of various management programs can be measured. This may also provide an early warning system as to a potential problem arising on a particular green. This continual monitoring may be of great assistance to USGA Green Section agronomists who visit the course.

An obvious benefit from the use of this instrument and accurate record keeping would be in assisting the green superintendent or green committee in their choice of hole location. A hole should be placed in such a position that no matter where the golfer is putting from, assuming continuous putting surface between himself and the hole, it should be possible to stop the ball within approximately two feet of the hole. Thus a hole location which presented a fair challenge when the green speed was approximately six and one half feet may quite possibly be a very bad position when the green speed is eight or nine feet, assuming, as an example, this position to be on or at the bottom of a sloping portion of the green.

Faster greens are generally truer greens. However, maximum speed should not be the ultimate goal of the course superintendent if to obtain this speed one forfeits consistency among greens on the course. Putting, in itself, is a challenge, it doesn't need the element of surprise; the surprise of being presented with a lightning fast green immediately after coming off one which required a bold stroke to reach the hole. It is considered that medium to fast greens which are consistent around the course is indicative of the course's condition and attention given by the individuals responsible for its care.

The eight USGA Green Section Agronomists will continue their speed tests throughout 1977. Their total survey for regular and tournament conditions for the two years will be reported in the spring of 1978.

The author and Green Section Staff would like to extend their thanks and appreciation to USGA's Technical Director Frank Thomas and to all golf course superintendents and green committee chairmen at USGA Member Clubs who participated in the 1976 tests and development of this program.

