

SPIKE WITH RECESSED FLANGE CAUSES LESS DAMAGE TO GREENS

Three Types Tested in USGA Experiment

A new spike for golf shoes causes considerably less damage to putting greens than the conventional spike, tests conducted by the USGA green section show

The significant feature of the new spike is a recessed flange or shoulder, so that only the spike protrudes outside the shoe sole. The spike in common use has a flange outside the sole. The flange is usually blamed by agronomists for causing undue soil compaction.

Damage caused by three types of spike was studied in tests conducted under the supervision of Dr Marvin H. Ferguson, national research co-ordinator of the USGA green section, last summer at College Station, Tex. Standard spikes were compared with two new models having recessed flanges. One of the new models—No. 1 test spike—was best of the three designs. The other new model—No. 2 test spike—produced the worst results because it collected soil on wet greens. The soil produced a cone around the spike and caused progressively worse damage.

Test Results Shown

In the tests at College Station a control plot that bore no traffic was given a rating of 100. The results were

	Rating after Traffic	Damage by Traffic
Check plot—no traffic	100.00	
No. 1 test spike— recessed flange	82.80	17.20
Standard spike— flange outside sole	72.17	27.83
No. 2 test spike— recessed flange	70.75	29.25

No. 1 test spike with a recessed flange caused only 59 per cent as much damage as No. 2 test spike.

A similar test of No. 1 test spike and the standard spike in Athens, Ga. showed similar results. It was observed by James B. Moncreif, South-eastern Agronomist of the USGA green section.

The USGA has studied the subject for some years. "The thickness of the

flange is a big factor in green damage," says Ferguson, "The weight of the player rests on the shoulders and the spikes, rather than on the sole" In the recent tests, No. 1 spike tended to distribute the weight over a wider area.

Support 1958 Conclusions

As early as 1958. USGA green section investigations tended to support the recent conclusions. In 1958 a spike with the shoulder recessed between inner and outer soles was tested against the conventional spike and the ripple-sole shoe. After five weeks, plots on which both the modified and the conventional spikes had been used, were badly worn. Plots tested by ripple soles sustained moderate damage. Plots were allowed to recover, and six weeks after the removal of traffic they were again studied. The plots where the modified spike and the ripple sole were used had made complete recovery, but the plot on which the conventional spike was worn had a partial turf cover infested with weeds and growth of algae.

Difference In Recovery Rate

"The significance of the damage may be more than the figures imply," says Ferguson, "because slightly damaged turf recovers much more rapidly than more seriously damaged turf. The relationship is not a straight line progression."

The USGA applauds any effort to reduce damage to putting greens. Caddies in some major championships have been obliged to wear rubber-sole sneakers. Players have endorsed this practice, saying that such shoes helped to minimize pitting of the greens.

Many golf shoes have 12 spikes each—24 in a pair of shoes. A California green committee chairman, C. J. Cogan of Newport Beach, once computed that a player will average 28 paces per green or 28 paces x 24 spikes for 672 impressions. And 672 impressions times 18 greens means 12,096 impressions per round for one player. Two hundred players create 2,419,200 impressions a day on 18 greens—or 72,576,000 impressions a month.

*With grateful acknowledgment to the
Golf Superintendent*