CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY

Name(s)
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Project Number
J0210

Project Title
The Spinning Edge

Abstract

Objectives/Goals
My project is based on discovering which golf ball spins the most after being hit from a 50-60 yd chip shot.I took 5,round,dimpled golf balls with different cores.I chose The Titleist Pro V1,Wilson Staff True Tour,Strata Tour Ultimate Plus,Titleist HVC Distance & Titleist Tour Balata 100. I hit 10 shots with each ball & took the 5 most consistent shots.The conditions werent exact as I wanted. I changed the way I measured the spin. When a ball is hit, spin is produced due to the degree of the clubface & the swiftness of the downswing. It will "check-up" or bounce up a bit,reversing the spin, pushing the ball in a forward motion. Thus,I measured how far the ball rolled forward after it hit the green.

Methods/Materials
Materials: 5 dimpled golf balls, all w/ different cores.A 56 degree sand wedge, Ball markers, Measuring tape, pen, paper.
Procdr:Gather required materials.Select flat,nicely cut driving range. Stand 50-60 yards from green to get good height & velocity on the ball.Hit 10 wedge shots for each ball. Record distances. Compute average results for each ball, Compare which ball had most spin.

Results
Due to weather & course conditions, I had to alter my procedure.There was a slight wind approx. 6-7 mph.When the ball is chipped it wont spin backwards as much due to the greens being punched & lightly sanded. Instead of measuring the distance the ball spins backwards, I measured the length it took the ball to stop rolling when it hit the green.Although the ball doesn't spin backwards, there is still a great amount of spin rotation on the ball.The ball will checkup & roll a shorter distance due to the backspin generated. Thus it slows the front spin down after it hits the green. The Titleist HVC Distance came in last place with an average of 11.7 ft. The Wilson Staff True Tour came in 4th place having an average distance of 8.5 ft. The Titleist Pro V1 came in 3rd place with an average of 7.8 ft. The runner up was the Titleist Tour Balata 100, averaging 5.8 ft. The winner was the Strata Tour Ultimate averaging 4.4 ft.

Conclusions/Discussion
I concluded multi-layer & wound core balls produce more spin & less travel than a solid core ball. The solid core balls are best used on large greens. A Multi-layer wound core ball are best on a small green.Solid core ball do best on wet greens.Wound or multi-layer ball are best when greens are hard. If a green is hot & dry its best to use a wound or multi-layer ball.

Summary Statement
My project is about the effect the core of a golf ball will have on the spin generated and the distance the ball travels.

Help Received
I received help from my parents gathering the materials, taking pictures, proof reading my research paper. I also got professional help in chosing the golf balls by Colin Meyers and Ric Moore at Bakersfield Country Club.