

THE SOCCER MATCH BALL PROBLEM

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The Jabulani Ball Criticisms by World Cup goalkeepers

- "Horrible and Dreadful" England
goalkeeper David James
- "Unpredictable" Italian Keeper Gianluigi
Buffon
- "It moves all over" U.S.A goal keeper
Tim Howard
- "It's a ball you can buy in the supermarket"
Brazil Keeper Julio Cesar
- "It is rotten" Spain goalkeeper Iker
Casillas

FIFA BALL SPECIFICATION

The soccer match ball is

- perfectly spherical
- made of leather or other suitable material
- of a circumference of not more than 70cm (28 ins) and not less than 68cm (27 ins)
- not more than 450g and not less than 410g in weight at the start of the match
- of a pressure equal to 0.6-1.1 atmosphere at sea level

Trajectory of soccer ball

- Ball is being kicked at the corner(e.g. corner-kicks) and slows down near the post giving the keeper a much easy catch
- Ball appearing to be stationary in the air after a goal kick near the end of trajectory of the ball

PREMIER SOCCER LEAGUE

- Home team chooses ball in a league match
- In a cup match, all teams use ball given to them by the South African Football association
- Nike supplies 3 different types of ball to the Wits team

Three balls given to University of the Witwatersrand by Nike are

- T90
- Tracer
- Omni

Can the study group tell which of the 3 balls to choose from???

Types of grasses used in South Africa are

- Rye grass
- Kikuyu grass

Wits criterion for a good soccer ball is

- Ball must behave itself best (predictability)
- Ball must not swerve much but should be stable while moving through the air

Altitude

Effect of high/low altitude of the ball on

- its trajectory
- drag
- transition from turbulence to laminar

THANK YOU