Baseball Reaction Off the Skinned Infield Surface. (C05-guillard103607-Poster)

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Abstract:

This study determined the effects of five skinned infield soils amended with four calcined clay rates on baseball response off the surface. Soils were two sandy loams, a silt loam, a loam, and a coarse sand. Calcined clay rates were 0, 49, 98, and 196 Mg/ha incorporated to a 10-cm depth. Surface responses were determined by measuring static friction, dynamic friction, surface hardness, and traction. Measurements were taken at soil moisture levels of 10, 14, and 18%. Effects were observed for the soil x calcined clay rate and soil x moisture level interactions. Friction and traction generally decreased as calcined clay rates increased on the finer-particle sized soils. Whereas, calcined clay rates had no or little effects on friction, traction, and surface hardness with the coarser-textured soils. Increasing soil moisture content had no effect on traction with the silt loam, coarse sand, and one of the sandy loam soils, but did affect static friction and surface hardness on all soils. Increasing calcined clay rates decreased bulk density and soil strength, but increased saturated hydraulic conductivity. Baseball response off skinned infield surfaces can be measured objectively.

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