1030-05-322 **Harvey I. Blau*** (blau@math.niu.edu), Department of Mathematical Sciences, Northern Illinois University, DeKalb, IL 60115, and **Bangteng Xu**, Department of Mathematics and Statistics, Eastern Kentucky University, Richmond, KY 40475. *Nilpotent Table Algebras.* Preliminary report.

Nilpotent table algebras generalize the group algebras, centers of group algebras, double coset algebras, and character rings, of nilpotent finite groups. We define these algebras and present several results, including a theorem that generalizes recent inequalities of Adan-Bante on the number of constituents in the decomposition of a product of irreducible characters, and a product of conjugacy classes, of a finite p-group. We also discuss criteria for when a nilpotent table algebra must be the adjacency algebra of an association scheme. (Received August 06, 2007)