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Meike Niederhausen* (niederha@up.edu), Department of Mathematics, 5000 N. Willamette Blvd., Portland, OR 97203, and **Gary Mitchell** (mitchelg@up.edu), Pamplin School of Business Administration, 5000 N. Willamette Blvd., Portland, OR 97203. *An Effective Method for Replenishing Items with Seasonal Intermittent Demand.*

We consider an important inventory management problem experienced by many retailers, wholesalers, and service operations. Specifically, we consider the problem of replenishing items characterized by non-stationary (seasonal) intermittent demand and address key operational questions inventory managers must answer. Given information about the likely time between demand events and size of the demand (in units), how should an inventory manager determine when and how much to order? Should an order be placed after every demand event? Should an order be placed if no demand event has occurred? We develop a new type of ordering policy that addresses these questions and use a "mixed" geometric probability distribution to model non-stationary demand inter-arrival times. Finally, we compare the performance of our algorithm to Croston's Method in terms of inventory levels and associated net profits and discuss implications for inventory managers. (Received September 22, 2010)