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Shiv Raj Singh* (shivrajpundir@gmail.com), Department of Mathematics, D.N. College,
Railway Road, Meerut, UP, India. *An Integrated Fuzzy Production Model with shortages Under
Two Warehouses.*

In this paper, we develop a two warehouse production model with imperfect items. Production rate is taken as the linear combination of on-hand inventory and demand, while demand rate is taken as function of time. Most of the researchers consider that the production rate is independent from the demand rate. In this paper we assume production rate as dependent on the demand rate and this assumption is more realistic. Shortages are allowed and partially backlogged with time dependent backlogging rate. Due to different preservation facilities we consider the deterioration rate is time dependent in own warehouse (OW) and Weibull distribution deterioration in rented warehouse (RW). Holding cost in RW is greater than in OW. We developed a fuzzy model with fuzzifying the carrying cost of OW and RW as triangular fuzzy numbers. The present model is developed in both crisp and fuzzy sense. Finally, numerical example is shown and sensitivity is also illustrated. (Received July 23, 2012)