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ON 'THE SINGLE-PERIOD INVENTORY PROBLEM'

In his paper¹ John Walker analyses a single-period inventory problem which obtains in the case of ordering perishable goods, such as newspapers. I would like to draw attention to earlier publications such as References 2-4, which are not based on the assumption of a triangular demand distribution.

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- 1. J. WALKER (1993) The single-period inventory problem with triangular demand distribution. J. Opl Res. Soc. 44, 725-731.
- 2. S. EILON (1960) Inventory control: a problem in stocking perishable goods. The Production Engineer 39, 210-215.
- 3. S. EILON (1962) Elements of Production Planning and Control. Macmillan, New York (Chapter 18).

4. S. EILON (1962) Industrial Engineering Tables. pp. 147-148, 164-168. Van Nostrand, London.

A RESPONSE TO S. EILON

As stated in my paper¹, the single period inventory problem has had a long history and only a sample of recent publications was referenced. The contribution of Walker^{1,2} was the development of closed form solutions for (s, S) policies in instances of the single period inventory problem involving a set-up cost for placing an order and Triangular (Uniform) demand distribution. The use of the Triangular and Uniform distributions allows a manager to approximate poor quality demand data and/or provide subjective demand estimates. To my knowledge the only other closed form results including a set-up cost involved an exponential demand distribution, see for example Hillier and Lieberman.³

Eilon⁴⁻⁶ provides results, graphs and tables for obtaining the optimal order quantity and associated expected cost/profit in instances of the single period inventory problem involving a zero set-up cost and, in the main, a Normal demand distribution. I thank Professor Eilon for bringing References 4, 5 and 6 to my attention.

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^{1.} J. WALKER (1993) The single-period inventory problem with triangular demand distribution. J. Opl Res. Soc. 44, 725-731.

^{2.} J. WALKER (1992) The single-period inventory problem with uniform demand distribution. Int. J. Opns. Prod. Mgmt 12, 79-84.