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The NLEAP software program was first released in 1991 by Shaffer et al. (1991) and was included in *Managing* Nitrogen for Groundwater Quality and Profitability (edited by Follett et al. 1991). Since then, there have been several new advances, such as the simulation of cropping systems with different root depths (Delgado et al. 1998), the simulation of N<sub>2</sub>O emissions (Xu et al. 1998), and the addition of a stand alone GIS driver (Delgado et

al. 2010a). To find out more about NLEAP GIS, including its capabilities, limitations, and history, see Delgado and Shaffer (2008), Delgado and Follett (2010), Follett et al. (1991), Shaffer and Delgado (2001), Shaffer et al. (1991) and Shaffer et al. (2010).