Modeling Extended Lactations of Holsteins. By Dematawewa et al., page 3924. Understanding the shape of lactation curve of dairy cows is important for efficient management, breeding, and profit maximization of dairy enterprises. Currently, the majority of US Holstein cows produce milk beyond the standard 305 d in milk. Many formulas have been developed to model the standard 305-d lactations. This study compared the ability of 9 widely used lactation curves to predict 305-d as well as 999-d lactations, and found that some of the simple formulas were more favorable than the complicated ones, because the computational difficulties associated with complicated formulas outweighed their marginal superiority in prediction accuracy.