

Repair and Maintenance cost models for Some Agricultural Equipment in Saud Arabia

Saleh A. AL-Suhaibani and M. F. Wahby
Paper No. 997009, ASAE Annual Presentation, 1999.

Repair and maintenance cost's models were developed in both exponential and multilinear equations. The accumulated cost per list price was calculated in two different methods; the first by using the accumulated working hours, while the second by using the percentage of machine age (life) to its expected wear out life. When applying the available data from HADCO into the most pronounced published R&M models, it was found that higher expected costs were resulted than that of HADCO models. That could be due to the unsuitable adoption conditions of such models. It is highly recommended that each area or country should develop its own models according to its operation, economic, and field conditions. Grouping machinery into different categories according to its power, age (life), or cutting width would result in much better models to predict R&M costs than that of general models. In most cases, multilinear models gave better cost prediction with higher confidence and less variations than of exponential models, especially when grouping machinery as mentioned above, because multilinear models could employ many variables in the equation.