

How to Measure Effectiveness of the Quality Classification Station?

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The authors develop measures for evaluating the effectiveness of a quality sorting station. It takes into account the availability of prior information such as incoming product quality, sorting errors, and losses due to under/over graduation. It is shown that the loss function selection leads both to the already known measures, as well as to some new measures.

Two ways of improving effectiveness using repeated sorting are compared to a case using only one rater. A case study shows that the measures that take into account real losses provide more distinguishable results and support the choice of the optimal classification method.