

Effective chemical protection of fruit is a complex task which can enable production of healthy food without chemical residues. As food health is a growing global concern, it is important to automate and optimize the fruit protection process. Different data mining techniques can be used to identify pattern diseases so as to prevent the excessive use of chemicals. However, application of data mining systems in this field is very complex task. Besides that, these systems are often designed for just one specific plant species. One solution for prediction a risk of fruit infection based on data that represent weather (meteorological) conditions and data pathogens is presented in this paper. The research is performed on the data collected at the region of Toplica in Republic of Serbia during five year period. In this paper data mining based tool for early prediction of fruit pathogen infection is performed. The application is based on the open source engine WEKA with GUI created in C#, and uses several data mining algorithms which are evaluated in this paper. Results shown that the prediction accuracy is 89%.