Summary

Keywords:
state of cutting blades, state of edges, state detection of cutting blades, attrition of edges, selfpropelled forage harvester, forage blade, point of grinding

In this Bachelor - thesis a proof of concept of a continuously state detection of cutting blades in a self-propelled forage harvester should be done.
This continuous state detection of the cutting blades submits the defining of the optimal point for grinding addicted to the state of the edge. Thereby the efficiency of the cutting process can be increased, because the cutting blades are not grinded too soon or too late. Further the cutting blades have always an optimal degree of severity, what causes a positive influence of the cutting quality.
Measurements were performed an analyzed in a self- propelled forage harvester of the type CLAAS JAGUAR 950 during the corn harvest.
Furthermore the influencing factors on the cutting process were analyzed and based on them an experimental design was developed, what should be the base for further studies on this topic.