

Abstract: The design and optimization of rotary tillage tool on the basis of simulation and finite element method is done by using ANSYS software. The different rotary tillage tool parts are geometrically constrained with preparation of solid model of blades and simulation has been done with actual field performance rating parameters along with boundary conditions. The proposed work results are identifying sufficient tolerance in changing the material such as EN 8 steel and EN 24 steel. The dimensions of rotavator blade sections and to rise the life cycle of the blades for a reliable strength. The present geometry working model with tillage blade is analysed to new design change constraints of its geometry for the maximum weed removal efficiency by presenting its analysis results from the field performance