

Axial Flow Rotor to Remove Seeds' Appendages

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This project reflects the commitment of our school to the problems that affect the productive community in the province and also the concern we have for the serious consequences caused by range land fires and its economic and environmental damage in the region. During the last year intense and extensive range land fires occurred in the province, affecting 3,250,000 acres of the regions of Calden forest and Monte occupied with natural grasslands. The soil in the areas affected by the fire was left without coverage, exposed to the action of winds or rains and prone to erosion causing seed losses and decreasing the forage supply. We investigated about some autochthonous grass forage species that adapt perfectly to this type of burned soil, and also its sowing is contemplated in the laws and regulations that protect the natural environments of the province. Currently the harvester machines are not adapted for these species and obtain a seed with appendages that hinder the flow-ability in the sowing machines during planting process. Our project contemplated the design and construction of a mechanism called axial flow rotor that will work inside the harvester and will be responsible for cleaning the seeds to allow proper sowing. The research was developed within a methodological framework using a four stages design and the product obtained in this phase of the investigation was a functional prototype that could undergo all the necessary tests to confirm that it meets the planned objectives.