Universität Basel

Publication

TASOW - A tool for the automated selection of potential windbreaks

Wind erosion is a process in which soil particles are detached from soils and transported downwind. One effective measure to reduce wind erosion are vegetated windbreaks such as hedgerows as they reduce wind speeds and likewise the forces which detach and transport soil particles. However, the planting of new windbreaks is driven by policy decisions as well as planning considerations. To get an initial idea of potential locations for new windbreaks, we present an automated routine as a model in ESRI ArcGIS Pro to propose plantation locations. The main input to the model is a wind erosion risk map. The results are potential locations for windbreaks that are ranked according to their suitability. The model parameters are adjustable, transferable to other regions and can be altered by to the user's needs.