

An Online Platform for Predicting Crops Based on Environmental Variables

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There is an emerging consensus that sustainable and more productive agriculture is needed to encounter the local, regional and global food security challenges. As the environmental factors are changing rapidly and questions regarding the selection of the crop is very important. This consensus implies significant emergence in new and improved tools that can be used to ensure the sustainability. Therefore, this project proposes to provide real-time information to support farmers to make decision on the crop selection and also to identify the hidden relationships among the environmental variables and the crop, hence improving the science behind predictive tools.

Agricultural technology is dependent on the prediction about weather, diagnosis of fertilizers in soil, type of crop and environmental issues. Precisely suitable soil types are selected for a particular crop types. Weather may be classified on the basis of temperature, rain and humidity. Producer prices are considered as other attributes related to environment.

As the first level Monaragala and Badulla districts are the areas taken into consideration. Maize, Potato, Tomato, Green gram and Red onion are selected as crop types. Rainfall, humidity, temperature, soil pH, soil types and producer price are some of the inputs for this prediction model. The most appropriate crop set for the relevant land output is the predicted output.

The purpose of this project is to address the literature by exhibiting an efficient model that stores agricultural data in proper and efficient manner to response ad-hoc queries of the farmers while providing a user interface which would provide most appropriated crop list for the relevant land.

Keywords: Crop, Soil types, Weather, Agriculture technology