**Abstract**

Dry beans are an important source of nutrition and protein for many people around the world, particularly in developing countries where they are a staple food. They are also an important crop for farmers, providing income and livelihoods for millions of people. They are the most produced one among the edible legume crops in the world.

There is a wide range of genetic diversity of dry beans available globally. Seed classification plays an important role in marketing and crop production. In this project, we are trying to classify the dry beans into classes based on the Dry Beans Dataset. The Dry Bean Classification Dataset contains information about seven different types of dry beans that are widely grown and includes various features related to the size, shape, and color of the beans. The dataset has 13,611 instances of dry beans, with 16 features for each instance.

In a predictive modeling project using this dataset, the goal is to build a machine learning model that can accurately classify different types of dry beans based on the features provided. The model is trained on a subset of the dataset and evaluated on a separate test set to measure its performance.

The potential applications of a model built with the Dry Bean Classification Dataset include crop management and optimization, as well as quality control in the food industry.