

**A STUDY AND COLLECTION OF BEAN  
CULTIVARS GROWN IN UVA REGION AND  
CHARACTERIZATION**

A dissertation submitted to the  
Faculty of Animal Science and Export Agriculture  
UvaWellassa University  
In partial fulfillment of the requirements for the award of the  
Degree of Bachelor of Science in Export Agriculture

By

**LANKADHIKARA MUDIYANSELAGE SEWWANDI  
SUBASHINI BANDARA**

**Faculty of Animal Science and Export Agriculture  
UvaWellassa University**

**2012**

## ABSTRACT

Common bean (*Phaseolus vulgaris* L.) is one of the major and very popular vegetable crops in Sri Lanka and it belongs to family Leguminosae and genus *Phaseolus*. Main objective of this research is to collect and to characterize the germplasm of Common Bean (*Phaseolus vulgaris* L.) from various genetic resources in Uva Region to be used in the future crop improvement. The research was conducted in Bandarawella, Badulla and Welimada areas from June to July 2012, in three levels as a farmer survey and secondary information collection, bean germplasm collection and bean characterization by seed morphology. Sixty one bean seed germplasm were collected from Uva region. The farmers in Uva region involve in small scale commercial bean cultivation as fresh vegetables and in bean seed production. The most popular and distributed seed variety among the farmers in Uva region is *Cabri* and the next highly used bean seeds are farmer selected varieties. White fly, aphids and leaf minor are identified as the severely damaging pests and Anthracnose and the bean mosaic virus are the major diseases in the bean cultivations in Uva region. The collected 61 bean seed germplasms are grouped in to 5 different groups based on the quantitative and qualitative characters of bean seeds in the characterization. KWG<sup>S</sup>, *Kappetipola Nil*<sup>BM</sup>, *Cabri*<sup>HG</sup>, *Kollu*<sup>S</sup> and other 56 seed cultivars grouped in to group A. Cluster B consists with *Katugastota*<sup>D</sup> and *Murunga Dumburu*<sup>KK</sup> while group C consists with *Maspanna*<sup>Y</sup>. Group D consists with *Gas Bonchi*<sup>I</sup> and group E consists with *Sudu Bonchi*<sup>AM</sup>. The varieties categorize in to one group are sharing common characters of bean seeds indicating that they are derived from one common ancestor.

*Key Words:* Common Bean, Uva Region, Characterization, Germplasm, Seed Morphology