

Abstract

The vegetable breeding program for organic farming systems is the 3rd research sub-project under the series of research projects to enhance performance of organic vegetable production of the Royal Project by breeding two varieties of plants, namely green bean and Cos lettuce, with an objective to obtain new varieties that are well adapted to organic farming system and differs from the varieties that are grown in the promotional system of the Royal Project Foundation. Such varieties will be planted for seed production and vegetables in the organic farming system of the Royal Project Foundation. The research was conducted from October 2012 to October 2016. Based on findings, it can be summarized as follows:

1. Selection and test of yield of green bean, from trial planting of F₇ generation of green beans, we could pick 3 lines of F₇ generation of green bean, namely C1801-56-59-182-133-B-B, C1801-56-168-144-22-B-B, and C1801-56-179-177-125-B-B, with new codes given as follows: CB-59-01, CB-59-02 and CB-59-03 respectively, and then those of 3 lines were planted in the farmer plants and they found that they gave higher yield than those of Ban Pong#1. Therefore, those 3 lines were selected for further planting and main seeds;
2. Selection and test of yield of Cos lettuce showed that the from planting and test of yield of F₇ generation of Cos lettuce, we could take the data to select 2 of lines of Cos lettuce to be planted and tested in the farmer plots and planted for selection of the next generation, namely CL1203-4-145-244-52-B-B and CL1203-4-172-4-135-B-B, with new codes given as follows: CL-59-01 and CL-59-02 respectively. Upon comparison on yielding of the 2 lines to that of Tiberius and MJ-5, it revealed that the Cos lettuce of CL-59-01 gave highest yield and was found twisted leaves less than that of the compared lines and CL-59-02. Therefore, the Cos lettuce of CL-59-01 was selected for further planting in the 8-F generation and production of main seeds.