STUDYING THE PERFORMANCE OF CHILLI (*Capsicum annuum* L.) CROP IN FARMERS' FIELDS AND ANALYSING THE PRODUCTION AND MARKETING POTENTIAL IN SECTOR-04 OF KALUTHAWALAI VILLAGE

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Abstract

Chilli (*capsicum annum*) is considered to be a major commercial crop in Sri Lanka. Different varieties of chilli are grown to use as vegetables, spices, condiments, sauces and pickles .Both green and dried chillies are the important components of our routine diet.

This research has been conducted to study the morpho-agronomic characters, production potential and marketing potential of chill cultivation in sector-4 of Kaluthawalai, Manmuni South Erruvil Pattu in Batticaloa district. This experiment was conducted during the period 17th of March to September 20th, 2007.

The sector-4 Kaluthawalai area primarily grows a chilli population popularly called by the name PC, but it is not homogeneous in nature. Three farmers field were selected according to the plant growth stage. The plant population was in per flowering stage from each field 10 plants were randomly selected.

The qualitative and quantitative character of the selected plants was analyzed and questionnaire survey was performed to obtain additional details about farmer's experience and their cultivation information, production potential, and marketing potential.

The quantitative data on canopy height, primary branch number, leaf length and leaf width, fruit girth and fruit length, fruit weight, days to flowering, days to fruiting and total yield were measured in this experiment and correlation analysis was performed to determine the level of significance.

The correlation studies revealed that canopy height, primary branch number and fruit weight had significant positive correlation with total yield.

The above studies on character association suggested that characters such as canopy height, branch number and fruit weight should be considered to improve yield in chilli. Canopy height at 50% flowering showed significant positive correlation with canopy height at 1st harvest, canopy height at 3rd harvest, fruit weight and total yield. It is found that early vigour appears to be an important attribute to the entire performance of a chilli crop.

Fruit yield showed significant positive correlation with canopy height at 50% flowering, canopy height at 1st harvest, canopy height at 3rd harvest, primary branch number and fruit weight: some other character were negatively correlated: they were leaf width, days to flowering and days to fruiting.

Qualitative characters such as stem colour, nodal anthocyanin, plant growth habit, branching habit, number of flowers per axil, flower position, corolla colour, ets. resembled with the characters of original PC variety. Certain percentage of deviation was observed in many of the other characters of the original PC cultivar. The above studies on characters showed that the locally grown chilli population in sector-4 Kaluthawala area was not homogeneous.

The farmers in Sector-4 Kaluthawalai in common did not follow the recommended cultivation practices. Spacing and fertilizer application differed from the recommendation. However through experience they adopt agronomic practices of their choice and high production. Yet the farmers face problem in marketing and transportation, because of the price fluctuation at harvesting period and the low price offered by the traders; Some times due to poor quality of fruit. It may be concluded the PC variety of chilli is the suitable crop in sector -4 of Kaluthawalai provide the construction marketing are overcome.

CONTENTS