

Effect of Spacing and Application of Foliar Nutrients on Growth and Yield of Black Pepper (*Piper nigrum*)

Swarnapriya, R.

Department of Vegetable Science, Tamil Nadu Agricultural University, India

Corresponding email: piriaragavan@yahoo.co.in

An experiment was conducted at Horticultural Research Station, Pechiparai, Tamil Nadu, India during 2014-17. The objective of the study was to find out the effect of different spacing and foliar nutrients on the growth and yield of black pepper. The variety Panniyur-1 (Bush type) was selected for the study. The soil of the experimental area is red laterite and this experiment was laid out in Factorial Randomized Block Design and is replicated thrice. The details of the treatments are spacing (S) treatments S_1 - 2.0 x 2.0 m, S_2 - 1.5 x 1.5 m, S_3 - 1.0 x 1.0 m and the foliar nutrient (F) treatments are F_1 -Humic acid @ 0.2 per cent, F_2 – Panchagavya @ 3.0 per cent, F_3 -NPK 19:19:19 spray @ 0.2 %, F_4 -GA3 spray @ 20 ppm and F_5 – Control (water spray). Soil application of 1.0:0.5:2.0 g of NPK per plant at bimonthly intervals was applied uniformly to all the plants as per the recommended package of practices of Tamil Nadu. The foliar nutrients as per the treatment specification were imposed for achieving a rapid response and were given in fortnightly intervals commencing from third month after planting. Observations were recorded on the height of the bushes at the time of harvest, number of spikes/bush, spike length and number of berries/spike. The green berry yield was also recorded. Among the different treatments S_1F_3 (spacing of 2.0x2.0 m and NPK 19:19:19 spray @ 0.2 %) recorded the highest number of spikes per plant (143.10), Spike length (16.24 cm) and the highest green berry yield of 1.100 kg/bush and it was significantly superior over other treatments.

Keywords: Bush black pepper, Foliar application, India, Panniyur– 1, Spacing