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THE ROLE OF RAIN WATER IN THE POLLINATION OF PEPPER (*PIPER NIGRUM* LINN.)

Pepper is a branching, climbing perennial shrub mostly cultivated in the moist regions of the tropical countries. Both monoecious and dioecious types exist. Pepper vine in its wild state is mostly dioecious and consequently rarely sets fruit. Most of the cultivated types are, however, bisexual and fruiting is very much better under cultivated conditions. Flowers are minute in spikes. Both hermaphrodite and unisexuel flowers are present in a spike.

Rain water is believed to play a major role in the pollination of pepper plants. Abraham (1959) reported that the chief agency for pollination is rain water and that satisfactory yield would not be obtained without frequent showers during blossoming period. Unpublished reports from Pepper Research Station, Taliparamba show that rain water aids in pollination of pepper. There is however, no other published evidence to show that rain water is the sole agent for pollination or at least it plays a major role in pollination.

The present investigation was taken up in the College of Agriculture in the year 1976 to study the role of rain water in the pollination of pepper Three standards with single monoecious vines were selected for the study. In each plant 20 spikes were selected and tagged. Ten spikes in each plant were covered with butter paper cover well before the maturity of flowers so as to prevent them from coming into contact with rain water. The other ten spikes in each plant were left uncovered. The paper covers were retained for 30 days. The number of fruits set in both the covered and uncovered spikes were counted and the results are presented in the Table below.

The average number of fruits set in the spikes enclosed in butter paper covers and that in the uncovered spikes do not show any difference. From the results it appears that the rain water does not play any role in the pollination of pepper. The apparent positive correlation reported between the number of fruits set as evidenced by higher yield and rain appears to be due to the effect of rain in flower initiation.

The bisexual nature of the flowers, the synchronisation of the receptivity of the style and the anther dehiscence and the closeness of the style and anthers appear to promote self pollination. Intraspike pollination also appears to take place due to the pendulous nature of the spike.

Table 1

	Average No., of fruits set		Average No. of bisexual flowers in a spike
	Covered spikes	Uncovered spikes	
Standard No 1	49.20	48.95	101.95
Standard No. 2	51.83	47.08	109.00
Standard No 3	50.62	54.57	112 54
Average	50.55	50 20	107 74

സംഗ്രഹം

കരുമുളക് ചെടിയുടെ പരാഗവിതരണത്തിൽ മഴവെള്ളത്തിനു വലിയ പങ്കുണ്ടെന്നു പരക്കെ ധാരണയുണ്ടു്. വെള്ളായണി കാർഷിക കോളേജിൽ 1976-ൽ നടത്തിയ പരീക്ഷണത്തിൽനിന്നും മഴവെള്ളത്തിനു കരുമുളക് ചെടിയുടെ പരാഗവിതരണത്തിൽ പങ്കില്ലെന്നാണു കണ്ടതു്.

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