

EFFECT OF NAPHTHALENE ACETIC ACID ON FRUIT DROP AND YIELD OF GUAVA CULTIVAR "RED FLESHED"

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ABSTRACT: Summer crop of red fleshed cultivar of guava was sprayed with NAA at 0, 15, 45, 60, 75, and 90 ppm concentrations at two stages of fruit development. Results revealed that naphthalene acetic acid significantly reduced preharvest fruit drop. Maximum reduction of 8.83 percent in fruit drop was observed with 45 ppm spray followed by 30, 60, 75 and 90 ppm. Fruit yield was significantly increased by NAA application. Maximum yield of 22.40 Kg per treatment was recorded in case of 45 ppm closely followed by 60 ppm (22.30).

INTRODUCTION

Fruit drop is a natural phenomenon in a bearing plant. Climatic conditions, cultural practices, nutrition, irrigation and lack of plant protection measures etc. play an important role in causing development of abscission layer at the stalk end of the fruit and there by result in fruit drop.

Guava growers have suffered greatly owing to preharvest shedding of fruits. Since the problem is of great economic importance, studies were made from traditional to modern practices to minimize, this disorder which did not prove to be significantly effective. Recently the use of growth regulating substances in varying strengths have been proved to lessen the tendency of preharvest drop in various fruits under different agro-climatic conditions. Guava is prone to excessive dropping of fruit at various stages of its fruit development. In this investigation, the growth regulator-naphthalene acid (NAA) at 15, 30, 45, 60, 75 and 90 ppm was sprayed at two stages of fruit development to see its effect on preharvest fruit drop and yield of "Red Fleshed" cultivar of guava under the agro-climatic conditions of Dera Ismail Khan. A lot of information on the use of growth regulating substances for controlling preharvest fruit drop in a number of fruit plants like apple, citrus and mango but little work has been reported on guava.