

Impact of ecological factors on development of *Botryodiplodia* rot of guava fruit

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Abstract

Effect of temperature and relative humidity on severity of *Botryodiplodia* rot of guava fruit was studied. Low temperature and low relative humidity inhibited severity of disease.

Keywords: Relative humidity, temperature, *Botryodiplodia* rot, guava fruit.

INTRODUCTION

Botryodiplodia rot of guava fruits is important post-harvest disease. Ecological factors like temperature and Relative Humidity (R.H.) play important role in the development and spread of post-harvest fungal diseases of fruits [1,2 and 3]. Hence Severity of post-harvest fungal diseases depends upon temperature and relative humidity [4]. Considering the fact attempts were made to determine the influence of ecological factors on *Botryodiplodia* rot of guava fruits.

MATERIALS AND METHODS

Semi-ripe fruits of guava were sterilized with 0.1 % HgCl₂, pricked with to 2 mm and dipped in spore suspension (10⁶ spores/ml) of *Botryodiplodia theobromae* for 2 minutes. It was incubated to different level of temperature and R.H. percentages adjusted level were maintained [5]. Severity of rot was recorded on 8th day of inoculation on the basis of per cent fruit area infected [6].

RESULTS AND DISCUSSION

Severity of *Botryodiplodia* rot of guava fruit was maximum at 30^o C and 100% R.H. Severity was absent at 10^oC and at 30% R.H. showed very less rotting of guava fruit. Patel and Pathak, (1995) [6] reported similar results.

Table 1. Effect of temperature and Relative humidity on disease severity of *Botryodiplodia* rot of guava fruit

Temp. (°C)	Disease severity %	R.H (%)	Disease severity %
10	0.0	30	0.0
20	3.4	50	1.3
30	4.5	80	3.2
40	2.9	100	3.9
S.D.	1.9	S.D.	1.4
S.E.	0.9	S.E.	0.7
C.D.(p=0.05)	2.4	C.D.(p=0.05)	1.9

CONCLUSION

It can be concluded that environmental factors affects the fungal diseases severity of fruits and at high temperature and low humidity *Botryodiplodia* rot of guava fruit is not developed.

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