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 (10^6 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°C and 100% R.H. Severity was absent at 10°C 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

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

**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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**REFERENCES**


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