

# Awareness of the Mango Growers Regarding Control of Diseases

Sayali V. Thakur

Department of Extension Education Mahatma Phule Krishi Vidyapeeth, Rahuri  
E-mail: sayalithakur729@gmail.com

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**Abstract**—Mango is susceptible to incidence of different diseases, their occurrence is the important factor influencing its production and productivity. The loss of yield in mango is due to occurrence of different diseases and inability to control the same by growers due to lack of knowledge. Generally, it is observed that mango growers do not adopt plant protection measures on large scale, which is one of the main constraints in increasing the productivity. Taking into consideration all these facts, present investigation was carried out in two tehsils viz; Chandgad and Gadhinglaj of Kolhapur district from western Maharashtra. The data were collected by interviewing 105 mango growers with the help of well-designed and pre-tested schedule. Anthracnose is the one of the major disease of the mango which infects the different plant parts like leaves, inflorescence and fruits also. With respect to the control measure of this disease i.e. spraying 10 g carbendazim 50 WP or 25 g copper oxychloride 50 WP in 10 litres of water on leaves, inflorescence and fruits, majority (49.52 per cent) of the mango growers had 'complete' knowledge. In case of recommended control measures for die- back i.e. spraying 30 g copper oxychloride 50WP or 30 g mancozeb 80 WP in 10 litres of water or spraying 1% Bordeaux mixture, majority (63.81 per cent) of the mango growers had 'no' knowledge. Powdery Mildew is the most sever diseases of mango which causes more losses in the mango. With respect to recommended control measures for the control of powdery mildew disease i.e. spraying 20 g sulphur 80 WP or 10 g carbendazim 50 WP or 5 ml hexaconazole 5 EC or 10 g thiophanate methyl 70 WP or 20 g propineb 70 WP in 10 litres of water, majority (52.58 per cent) of the mango growers had 'complete' knowledge. In case of control of fruit rot which is post harvest disease i.e. dipping mango fruits in 0.05 per cent solution of carbendazim 50 WP for 10 minutes, majority (47.62 per cent) of the mango growers had 'no' knowledge, while 41.90 per cent of them had 'complete' knowledge and 10.48 per cent of them had 'partial' knowledge.

**Keywords:** Awareness, Mango, Diseases

## 1. INTRODUCTION

Total mango production in India is 18.00 million tonnes with 22.1 per cent share in total fruit production. In India mango is grown on 2.5 million ha which contributes 35.8 per cent share in total area under fruit crops. Irrespective to the reality that India is having a comparative advantage over other mango producing countries in terms of total production still the productivity (7.2 tonnes/ha) continues to be low. Maharashtra is one of the major states in case of area under mango (0.48

million ha) but total mango production of the state is low as compared to other states (0.63 million tonnes). Hence, productivity of mango in Maharashtra is tends to be very low (1.3 tonnes/ha). As mango is susceptible to incidence of different diseases, their occurrence is the important factor influencing its production and productivity. The loss of yield in mango is due to occurrence of different diseases and inability to control the same by the growers due to lack of knowledge. Generally, it is observed that mango growers do not adopt plant protection measures on large scale, which is one of the main constraints in increasing the average yield per hectare. Taking into consideration all these facts, it is necessary that mango growers should have knowledge about the appropriate control measures to keep their mango crop free from disease infections so that they can increase production and productivity of mango. Keeping all the above facts in mind, present study was carried out with the objective to study the extent of awareness of the mango growers regarding control of diseases.

## 2. METHODOLOGY

The present study was under taken in Kolhapur district of western Maharashtra region which is adjacent to the leading region in mango production i.e. South Konkan. Two tehsils from Kolhapur district with highest area under mango crop were selected for the research study viz; Chandgad and Gadhinglaj. Information regarding the progressive mango growers was obtained from the Taluka Agriculture Officer and then 105 respondents from two tehsils were selected purposively considering the conveyance and objectives of the study. The data from mango growers were collected through personal interview schedule. The qualitative data were converted into quantitative form. The independent and dependent variables were measured by assigning score. The frequencies and percentage were worked out to describe the characteristics of mango growers.

### 3. RESULTS

#### Overall awareness of the mango growers regarding control of diseases

The data mentioned in Table 1 revealed that majority (43.81) of the mango growers had 'medium' level of awareness regarding disease control measures, while 28.57 per cent of them had 'low' level of awareness. Whereas 27.62 per cent of the mango growers had 'high' level of awareness.

**Table 1: Distribution of the mango growers according to their awareness level**

Sr. No.	Level of Awareness (Score)	Respondents n=105	
		Number	Percent
1	Low (Up to 4)	30	28.57
2	Medium (4-10)	46	43.81
3	High (10 and above)	29	27.62
	Total	105	100

Information pertaining to the awareness of the mango growers regarding control of diseases is presented in Table 2.

**Table 2: Awareness of mango growers regarding control of diseases**

Sr. No.	Recommended Measures for Control of Diseases	Awareness		
		Complete	Partial	No
		Number (%)	Number (%)	Number (%)
<b>1</b>	<b>Die-back</b>			
A	Spray of Copper Oxychloride 50WP (30 g) or Mancozeb 80 WP(30 g) in 10 litres of water or Spray of 1% Bordeaux mixture	24 (22.86)	14 (13.33)	67 (63.81)
B	Cutting and burning of infected branches and application of Bordeaux paste on cut portion	6 (5.71)	11 (10.48)	88 (83.81)
<b>2</b>	<b>Anthracnose (On Leaves/ Inflorescence/ Fruits)</b>			
A	Spray of Carbendazim 50 WP (10 g) or Copper Oxychloride 50 WP (25 g) in 10 litres of water or Spray of 1% Bordeaux mixture on leaves, inflorescence and fruits	52 (49.52)	11 (10.48)	42 (40.00)

<b>3</b>	<b>Powdery Mildew (On Leaves/ Inflorescence)</b>			
A	Spray of Sulphur 80 WP (20 g) or Carbendazim 50 WP (10 g) or Hexaconazole 5 EC (5 g) or Thiophanate methyl 70 WP (10 g) or Propineb 70 WP (20 g) in 10 litres of water	55 (52.38)	9 (8.57)	41 (39.05)
<b>4</b>	<b>Fruit Rot</b>			
A	After harvesting dipping of fruits in 0.05% solution of Carbendazim for 10 mins	44 (41.90)	11 (10.48)	50 (47.62)

It is observed from Table 2 that in case of recommended control measures for die- back i.e. spraying 30 g copper oxychloride 50WP or 30 g mancozeb 80 WP in 10 litres of water or spraying 1% Bordeaux mixture, majority (63.81 per cent) of the mango growers had 'no' knowledge. Majority (83.81 per cent) of the mango growers had 'no' knowledge regarding cutting and burning of infected branches and applying Bordeaux paste on cut portion.

Anthracnose is the one of the major disease of the mango which infects the different plant parts like leaves, inflorescence and fruits also. Table 2 indicated that with respect to the control measure of this disease i.e. spraying 10 g carbendazim 50 WP or 25 g copper oxychloride 50 WP in 10 litres of water on leaves, inflorescence and fruits, majority (49.52 per cent) of the mango growers had 'complete' knowledge.

Powdery Mildew is the most sever diseases of mango which causes more losses in the mango. According to Table 2, in case of recommended control measures for the control of powdery mildew disease i.e. spraying 20 g sulphur 80 WP or 10 g carbendazim 50 WP or 5 ml hexaconazole 5 EC or 10 g thiophanate methyl 70 WP or 20 g propineb 70 WP in 10 litres of water, majority (52.58 per cent) of the mango growers had 'complete' knowledge.

In case of post harvest control measures for control of fruit rot i.e. dipping mango fruits in 0.05 per cent solution of carbendazim 50 WP for 10 minutes, majority (47.62 per cent) of the mango growers had 'no' knowledge.

### 4. CONCLUSION

The findings of the study indicated that as mango growers had medium level of awareness regarding recommended measures

for control of diseases. Hence, it is necessary to impart proper scientific and technical knowledge regarding recommended disease control measures of mango through trainings and demonstrations.

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