

Research Note :

Management of black spot disease of rose caused by *Diplocarpon rosae* with fungicides and cultural practices



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SUMMARY

The black spot disease caused by *Diplocarpon rosae* Wolf. (*Marssonina rosae*) is the most important disease of cultivated roses throughout the world particularly, so in areas of high rainfall. Under field conditions, the treatment comprising Thiophanate methyl + Potash was most effective in managing black spot disease of rose followed by the other treatments viz, Thiophanate methyl + Silicon, Carbendazim + Potash and Carbendazim + Silicon.

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Key words :

Black spot, Rose, *Diplocarpon rosae*, Fungicides, Cultural practices

Rose is the best known and most popular of garden flower throughout the world and is one of the nature's beautiful creations. It is universally acclaimed as the "queen of flower". No other flower is a better symbol of love, adoration, innocence and other virtues than the rose.

The black spot disease caused by *Diplocarpon rosae* Wolf. (*Marssonina rosae*) is the most important disease of cultivated roses throughout the world particularly, so in areas of high rainfall. The black spot of rose is a foliar disease recognized by appearance of black spots on the upper side of the leaf. The symptoms are brown to black circular spots with an irregular margin on the upper surface of the leaf followed by yellowing and premature defoliation. Once established on plants, black spot is difficult to control despite a combination of practices that include sanitation measures and fungicide application (Bowen and Roark 2001). If black spot is not controlled, repeated defoliation of plants occurs, leading to their early decline and death. Black spot is a destructive disease in Konkan region where favourable temperature and moisture conditions for leaf infection exist for extended period of the year.

The trial was conducted in a Randomized Block Design with three replications at Department of Agronomy, Br. B.S. Konkan Krishi Vidyapeeth, Dapoli, Dist. Ratnagiri, during *Kharif* season of 2009 using rose variety 'Sophia Lorens'. The two fungicides namely, Thiophanate methyl and Carbendazim were used in combination with cultural practices like mulching, potash and silicon application for the control of black spot of rose. In the beginning of *Kharif* season all cultural practices were applied as, 10 cm layer of paddy straw mulch placed around the base of plants, application of 60g potash per plant through muriate of potash and 10g silicon per plant through silica. Both the fungicides were applied at 0.2 per cent concentration. The spraying was done at 10 days interval starting from June month up to the end of *Kharif* season. Observations on disease incidence were recorded on fifteen randomly selected compound leaves from each plant on the basis of 0-5 disease rating scale suggested by Sharma and Singh (2002) viz., 0 = No infection, 1 = Small brownish flecks covering less than 1 per cent of the leaf area, 2 = Brownish to black small lesions on leaves covering 1-10 per cent of the leaf area, 3 = Characteristics black spots with radiating

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