Research Note :

Efficacy of calaxin against *Alternaria arachidis in vitro*

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International Journal of Plant Protection **(April to September, 2010), Vol. 3 No. 1 : 163-164**

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Key words : *Alternaria arachidis*, Alteraria blight, Groundnut, Calaxin,MIC

Accepted :* *February, 2010

Groundnut (*Arachis hypogea* L.) is highly nutritious crop. The seeds have a protein about 25-28 % and oil 43-55 %. The groundnut was first cultivated in Brazil (South America) in prehistoric times, there after introduced to other countries (Reddy, 1988). The kernels are rich in vit. A, B, B2 and E. The oil is used for manufacturing of hydrogenated Vanaspati and soap. The groundnut cake is the best cattle feed. This commercially important plant get affected by various micro-organisms resulting in different types of diseases. The various diseases such as tikka, rust, collar rot, wilt and stem rot are known (Reddy, 1988). A Alternaria blight of groundnut has also been observed (Subramanyam *et al.*, 1992). It was noted that the disease incidence is increasing year after the year gradually which causes to manage decrease in productivity. In this present investigation efforts have been made Alternaria blight of groundnut by using the fungicide, calaxin.

The effect of calaxin against *Alternaria arachidis* was studied by food poisioning technique. In this technique, various concentrations of calaxin ranging from 100µg/ml to1000µg /ml were prepared.The double strength Czapek Dox agar medium was prepared.10ml of calaxin solution of various concentrations and 10ml of double strength Czapek Dox agar medium were well mixied separately.After mixing,the solution was poured in sterile Petridish and allowed to solidify.After solidification, a 5mm fungal pathoghen disc was kept on this solidified medium at the centre and allowed for the incubation for 10 days.After incubation the linear growth was measured every day and expressed in mm. The minimum inhibitory concentration (MIC) was noted.

The efficacy of calaxin was tested against *Alternaria arachidis*. There was gradual growth inhibition of *A. arachidis* as the concentration of calaxin increases. At 500lµg/ml, the MIC was detected.

Different scientists studied different fungicides to control different groundnut diseases. Wangikar *et al.* (1985)studied chemical control of groundnut rust by using Plantvax 0.1%(oxycarboxin),BAS-3170F 0.3%(2 indo benzoic acid anilide),RH-124 0.1% (4n-butyl-1,4 triazole) and Dithane Z-78 2%(Zineb) for the good control of *Puccinia arachidis* on AK-12-24 groundnut. Baleshwar Singh (1993) demonstrated the fungicidal control of leaf spot and rust diseases of groundnut in Nagaland by using 0.1%

Table 1 : Effect of calaxin on the growth of Alternaria arachidis

Calaxin concentration (µg/ml)	Linear growth (mm) Incubation period (Days)									
	1	2	3	4	5	6	7	8	9	10
Control	15	17	18	20	25	36	42	54	62	68
100	6	7	7	8	8	8	8	9	9	9
200	-	-	6	6	6	6	7	7	8	8
300	-	-	-	6	6	6	7	7	7	8
400	-	-	-	-	-	-	6	6	7	7
500	-	-	-	-	-	-	-	6	6	6
600	-	-	-	-	-	-	-	-	-	-
700	-	-	-	-	-	-	-	-	-	-
800	-	-	-	-	-	-	-	-	-	-
900	-	-	-	-	-	-	-	-	-	-
1000	-	-	-	-	-	-	-	-	-	-

carbendazim,0.2% copper oxychloride, 0.2% mancozeb. Adiver and Anahosur (1995)studied the efficacy of some triazole fungicide against late leaf spot of groundnut and their subsequent effects on *Sclerosium rolfsii*. The minimum inhibitory concentration of calaxin against *A.arachidis* was found to be 500 µg /ml.The results were as shown in the Table 1.

Acknowledgement :

The authors are thankful to Prinicipal, Shri Guru Buddhiswami College, Purna.

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