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RESEARCH NOTE

REACTION OF TWO CULTIVARS OF MAIZE *(ZEA MAYS* L.) TO LANCE NEMATODE *BASIROLAIMUS INDICUS* (SHER, 1963) SHAMSI 1979

Aly Khan, A.H. Jaffry and Mahmuda Khanum
Crop Diseases Research Institute, Pakistan Agricultural Research Council, University of Karachi

The effect of Lance nematode Basirolaimus indicus on growth parameters of two cultivars of maize Kashmir *Gold* and Bahar was studied. The *results* showed that cultivar Kashmir *Gold* shoot and root weight and length (at 196 level) was adversely affe_cted by this nematode at 200 and 400 inoculum *levels* while *only* shoot and root weight (at 196 level) of *cultivar* Bahar was -adversely affected at this inoculum *levels.*

INTRODUCTION

Maize (Zea mays Le) is one of the important crops of Pakistan where as its *yield* is *seriously* affected by a number of diseases including *plant* parasitic nematodes. In a survey of maize *fields* located at Tando Muhammad Khan, *Sujawal* and Thatta, Sind, lance nematode *Basirolaimus* indicus was found in high frequency *(185-210* nematodes/lQO mg of som. ~. indicus is a bisexual species that completes its *life cycle* on sorghum roots in 27-36 days at 28-30°C. It is also an important parasite of banana, cabbage, citrus, sugarcane, and rice throughout India. It lacks *cellulolytic* enzymes but can penetrate roots of sugarcane up to the inner layer of cortex (Singh and Misra, 1976).

So far, the *only* record available on pathogenicity of plant parasitic nematode to maize is that of Khan *et al.* (1988) from Pakistan.

Therefore, an attempt was made to investigate the effect of Basirolaimus indicus (Sher, 1963) Shamsi, 1979 on growth parameters of two cultivars of maize i.e. Bahar and Kashmir Gold.

MATERIALS AND METHODS

Four seeds were sown in eleven cm diameter plastic pots containing 700 g steam sterilized soil. After germination, plants were thinned to one per pot and inoculated with freshly isolated specimens of Basirolaimus indicus at a rate of 100, 200 and 400 nematodes per plant. Uninoculated plants served as control. Each treatment was replicated four times. The pots were kept at room temperature and watered every alternate day. The experiment was terminated after 14 days of inoculation and plant growth parameters. (length and fresh weight of root and shoot) were measured.

The significance of differences in the mean value as checked using L.S.D. at 5% and L.S.D. at 1% levels.

RESULTS AND DISCUSSION

The result presented in Table 1 show that inoculum levels 200 and 400 nematodes/plant significantly reduced shoot and root length and weight of Kashmir Gold cultivar while shoot and root length of Bahar was not significantly reduced by any of the inoculum levels used while shoot and root weights were significantly reduced by inoculum levels 200 and 400 nematodes/ plant.

The root of both the cultivars having inoculum level 400 nematodes/plant appeared to be necrotic with small brownish lesions.

On account of importance of this crop and widespread distribution of this nematodes more trials with other cultivars are planned.

Table 1. [illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0	[illegible]	-	[illegible]	-
	100	[illegible]	-	[illegible]	[illegible]
	200	[illegible]	-	[illegible]	[illegible]
	400	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]		[illegible]	
[illegible]		[illegible]		[illegible]	
[illegible]	0	[illegible]	-	[illegible]	-
	100	[illegible]	[illegible]	[illegible]	-
	200	[illegible]	[illegible]	[illegible]	[illegible]
	400	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]		[illegible]	
[illegible]		[illegible]		[illegible]	

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