

Effect on maize (*Zea mays*) hybrids

Interaction between host density and fungus

Table shows the effect of different host densities on *Fusarium* ear rot in *Zea mays* hybrids.

Crop: Maize

Stress 1: Three plant density treatments - 65,000 plants/ ha, 75,000 and 80,000 plants/ha.

Stress 2: *Fusarium graminearum* and *F. culmorum*

Stage of the plant: reproductive stage

Plant	Treatment		Mould covered area (%)**	Parameter type*
	Host density (plants/ha)	Fungus		
Hybrid 1	65000	<i>F. graminearum</i> and <i>F. culmorum</i>	17.8	Type B
	70000	<i>F. graminearum</i> and <i>F. culmorum</i>	21.2	
	80000	<i>F. graminearum</i> and <i>F. culmorum</i>	17.58	
Hybrid 2	65000	<i>F. graminearum</i> and <i>F. culmorum</i>	4.45	
	70000	<i>F. graminearum</i> and <i>F. culmorum</i>	6.33	
	80000	<i>F. graminearum</i> and <i>F. culmorum</i>	3.2	
Hybrid 3	65000	<i>F. graminearum</i> and <i>F. culmorum</i>	28.43	
	70000	<i>F. graminearum</i> and <i>F. culmorum</i>	14.48	
	80000	<i>F. graminearum</i> and <i>F. culmorum</i>	17.1	
Hybrid 4	65000	<i>F. graminearum</i> and <i>F. culmorum</i>	17.95	
	70000	<i>F. graminearum</i> and <i>F. culmorum</i>	15.05	
	80000	<i>F. graminearum</i> and <i>F. culmorum</i>	13.33	
Hybrid 5	65000	<i>F. graminearum</i> and <i>F. culmorum</i>	24.4	
	70000	<i>F. graminearum</i> and <i>F. culmorum</i>	20.28	
	80000	<i>F. graminearum</i> and <i>F. culmorum</i>	23.28	
Hybrid 6	65000	<i>F. graminearum</i> and <i>F. culmorum</i>	9.15	
	70000	<i>F. graminearum</i> and <i>F. culmorum</i>	9.33	
	80000	<i>F. graminearum</i> and <i>F. culmorum</i>	2.98	
Hybrid 7	65000	<i>F. graminearum</i> and <i>F. culmorum</i>	22.93	
	70000	<i>F. graminearum</i> and <i>F. culmorum</i>	8.75	
	80000	<i>F. graminearum</i> and <i>F. culmorum</i>	6.93	
Hybrid 8	65000	<i>F. graminearum</i> and <i>F. culmorum</i>	4.48	
	70000	<i>F. graminearum</i> and <i>F. culmorum</i>	5.23	
	80000	<i>F. graminearum</i> and <i>F. culmorum</i>	5.48	

For raw data – Click here (.xlsx file)

Reference-

Bata A, Rafai P, Kovacs G and Halasz A. 1997. Study of the effects of Nfertilization and plant density on the resistance of maize hybrids to Fusarial ear rot. Period Polytechnica Chemical Engineering 1997; 41(1), 11–17.

Note:

‘*’ - For more information on parameters classification, please refer to ‘methodology’ tab.

*‘**’ Values presented as they were in the source articles without subjecting them to the calculation.*

Inference from the study: Bata et al., 1997 did not find an overall significant effect of increasing host densities on severity of Fusarium ear rot in maize. Hybrids 2, 3, 4 and 7 showed decrease in disease intensity with increasing host density, the other hybrids showed a mixed effect or no significant difference in disease severity at different host densities.

Increasing plant densities does not have a significant effect on incidence of Fusarial ear rot in maize.