in using the cat as a final host remains to be confirmed by experimental infection studies.

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Post-Infection Changes in Sugar Contents of Banana Fruits

Ripe fruits of 'Alpan' variety of Banana (*Musa paradisiaca* L.) were inoculated with *Alternaria tenuis* Auct and *Helminthosporium speciferum* (Bain) Nicot and were incubated at 25° ± 1° C. Tissue adjacent to the inoculated region was analysed on alternate days upto 10 days. For the detection of sugars, thin layer chromatographic technique adopted by Stahl (1965) was employed. *n*-Butanol-acetone-water (4 : 5 : 1) was used as the solvent and spots were developed by spraying aniline phthalate solution (0·93 gm aniline and 1·66 gm of phthalic acid dissolved in 100 ml water saturated with *n*-butanol). The intensities of the bands were compared visually and according to their concentration, they were graded in five categories, *i.e.*, 5+, 4+, 3+ . . . . 1+. The results are presented in Table I.

Soluble sugars sucrose, glucose and fructose were present in the fruits. In healthy fruits, the concentrations of sucrose and glucose were higher than those of fructose. A well-marked difference was expressed by *A. tenuis* and *H. speciferum* in their comparative rates of utilization. With the increase of the incubation period the concentration of sucrose, glucose and fructose decreased. *A. tenuis* consumed fructose earlier than *H. speciferum*. It is interesting that both the fungi hydrolysed sucrose rather slowly and even after 10 days, some fructose and glucose persisted.

TABLE I

Presence of various sugars in banana fruits during advancement of rot caused by Alternaria tenuis *and* Helminthosporium speciferum

Days of incubation	Sucrose	Glucose	Fructose
	Healthy		
0	4+	4+	2+
2	4+	4+	3+
4	3+	3+	4+
6	4+	2+	4+
8	4+	3-	3+
10	4+	4-	3+
	A. tenuis		
0	4+	4+	2+
2	3+	3+	3+
4	3+	3+	3+
6	3+	3+	2+
8	2+	2+	1+
10	2+	2+	1+
	H. speciferum		
0	4+	4+	2+
2	0-	2+	1+
4	3+	3+	3+
6	3+	4+	3+
8	3+	2+	2+
10	2+	2+	2+

Several studies[1-3] have shown the formation of transient oligosaccharides by pathogenic fungi on sucrose solution. Formation of oligosaccharides in mango and other fruits under pathogenesis is also known[5,6]. We were, however, unable to spot transient oligosaccharides in banana fruits under pathogenesis which is obviously due to slow rate of conversion of sucrose and simultaneous utilization of the monosaccharide component.

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