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Table 1 Effect of EMS, dES and EI on the meiotic aberrations in *Solanum nigrum* L

Dose (h PSW)/ Treatments (%)	Total % of pollen mother cells with aberrations	
	Diploid	Tetraploid
EMS		
Dry/0.05	5.00	4.50
60/0.05	10.00	8.75
72/0.05	9.00	8.21
96/0.05	8.00	7.25
dES		
Dry/0.02	4.61	3.50
60/0.02	7.50	7.15
72/0.02	6.90	6.41
96/0.02	6.29	5.86
EI		
Dry/0.0025	4.04	3.87
60/0.0025	9.00	7.27
72/0.0025	8.14	7.08
96/0.0025	7.00	6.00

h, hours; PSW, presoaking in water.

POLYPLOIDY AND SENSITIVITY TO CHEMICAL MUTAGENS IN *SOLANUM NIGRUM* L

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DIFFERENT biological parameters such as genotype, genome, ploidy status, chromosome number, DNA content and nuclear volume are known to condition the response of plants to radiations. Among these, the effect of ploidy is of particular interest, since both the nature and extent of polyploidy influence radiation sensitivity¹⁻³. Parallel type of information on the sensitivity of organisms with different level of ploidy to radiomimetic chemicals is however far from scanty⁴. With this end in view, the dry and presoaked seeds of diploid and tetraploid *Solanum nigrum* L were treated with three different chemical mutagens namely ethyl methanesulphonate (EMS), diethyl sulphate (dES) and ethylene imine (EI) and their effect was studied in respect of meiotic aberrations.

The results are indicated in table 1. In *Solanum nigrum* the treatment of EMS, dES and EI produced different types of meiotic irregularities such as fragments, laggards, bridges, precocious movement and

non-orientation of chromosomes in both the diploid and tetraploid. This is quite in agreement with the earlier published data⁵⁻⁷.

Table 1 indicates that the percentage of cells carrying meiotic abnormalities induced by EMS, dES and EI is only slightly greater in diploid as compared to the tetraploid. This observation also agrees with the earlier published finding⁷.

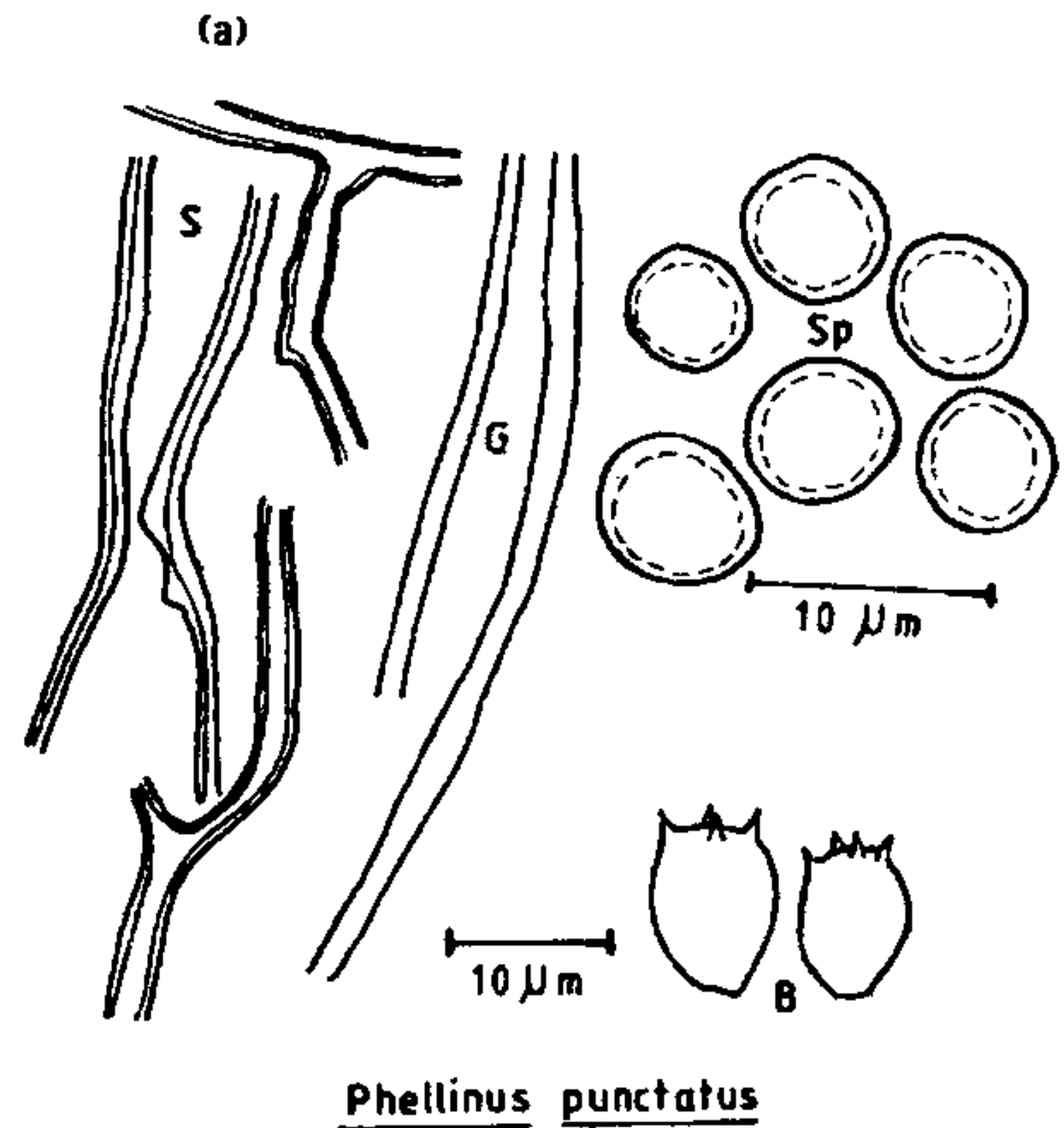
The consistently lower percentage of meiotic aberrations in the tetraploid *S. nigrum* indicates its cytologically diploidized and stable condition. The slightly higher values of meiotic aberrations for the diploid clearly show that it is only slightly more sensitive than the tetraploid to the effects of different chemical mutagens.

The marginal differences in the sensitivity of diploid and tetraploid which has been noted in the present study might be on account of genomic peculiarities in the diploid and tetraploid of *S. nigrum*. The possibility of genomal effects seems all the more likely in view of the fact that the tetraploid *S. nigrum* has been established to be an allopolyploid⁸.

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NEW RECORDS OF *PELLINUS* FROM INDIA

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DURING a survey of the wood-decaying fungi of Kerala, S. India, two species of *Phellinus*, hitherto unrecorded from India, were encountered. These fungi are described and illustrated in this account. Colour terminology used is that of Kornerup & Wanscher¹. The materials are deposited in the Herbarium, Department of Botany (CALI), Calicut University and the duplicate materials are in the Herbarium of the Division of Mycology and Plant Pathology (HCIO), Indian Agricultural Research Institute, New Delhi, India.

Phellinus punctatus (Fr.) Pilat. (figure 1a)
Atl. Champ. Europe 3:530, 1942.-Syn. *Polyporus punctatus* Fr. Hym. Eur. p. 572, 1874. *Poria punctata* (Fr.) Karst. Bidr. Finl. Natur. O. Folk. 37:83, 1882.

Fruitbody perennial, resupinate, effused, inseparable from wood, thickened at the central region, becoming plano-convex to pulvinate, up to 6 mm thick at the centre and receding towards the margin, woody hard. Pore surface amber yellow (4B6) to golden (4C6), colour fading towards the margin; surface smooth, cracking irregularly with age; margin pale yellow, adpressed and flat, finely velutinate; pores small, not visible to naked eye, round, 5-6 per mm, dissepiments 75-100 μm thick; pore tubes concolorous to the pore

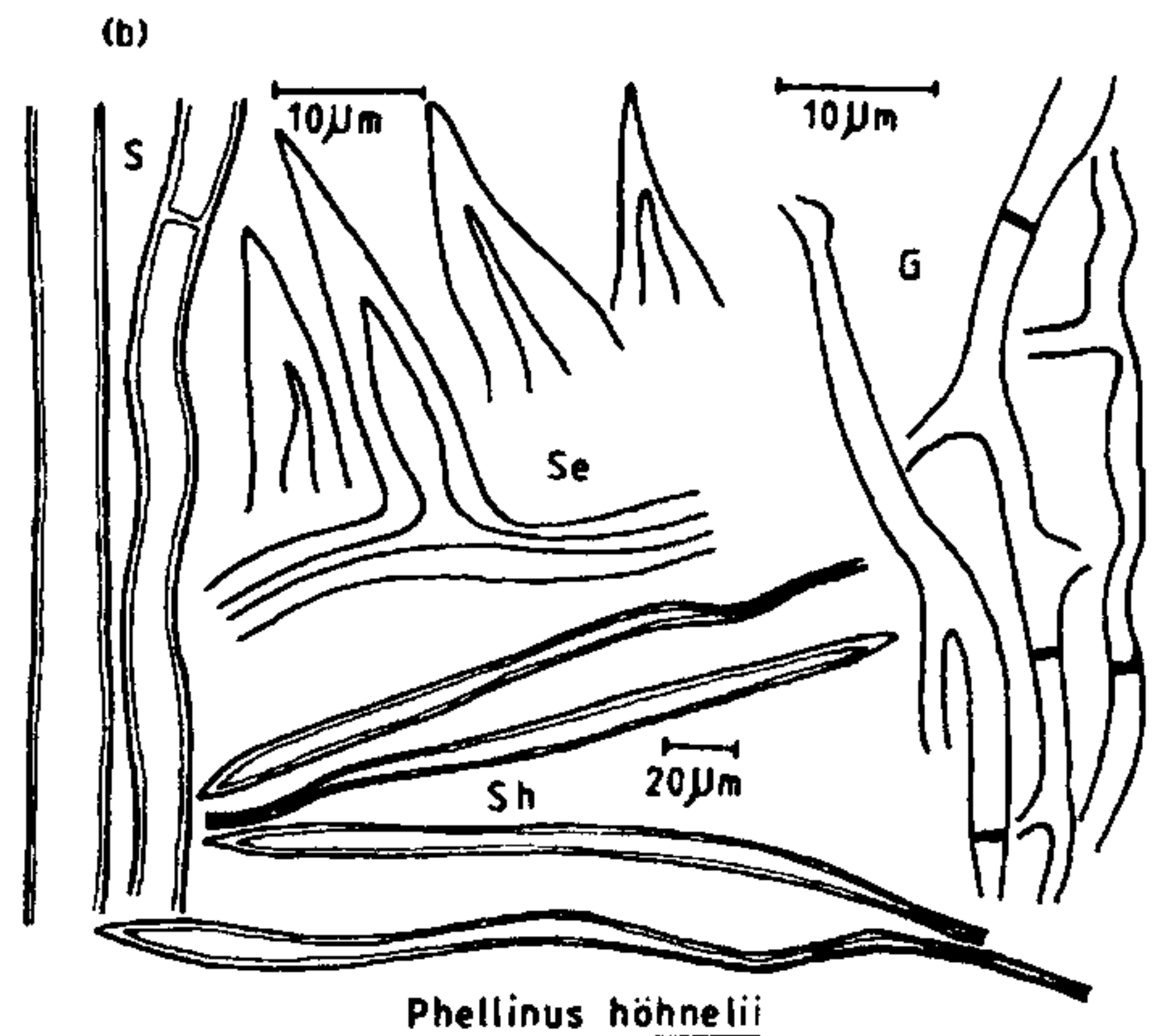


Figure 1a. *Phellinus punctatus*; **b.** *Pellinus höhnelii*. B, basidia. G, generative hyphae. S, skeletal hyphae. Se, setae. Sh, setal hyphae. Sp, spores.

surface, stratified about 2 mm long in each layer, old tubes filled with context hyphae, pores oblique. Context olive yellow (3C8), a thin layer present between pore strata, upto 1 mm at the central region, almost absent towards the margin.

Hyphal system dimitic. Generative hyphae hyaline, thin-walled, simple septate, branched, easily breaking, 1.5-2 μm broad, cyanophilous, rather frequent. Skeletal hyphae yellowish, thick-walled, rarely branched, cylindrical or slightly twisted, ends becoming hyaline and attenuated, brownish with KOH, lumen