Table 1 *Effect of the effluent on seed germination and seedling growth of Vigna mungo (L.) Hepper var. Co.5*

Conc.	Germination (%)	Epicotyl length (cm)	Hypocotyl length (cm)	Root length (cm)	Number of lateral roots formed
Control	95	12.2 ± 0.9	6.1 ± 0 6	11.5 ± 1.1	20 ± 2.3
1%	95	12.7 ± 0.7	6.7 ± 0.8	12.5 ± 1.0	24 ± 0 6
2.5%	95	17.0 ± 0.9*	7.8 ± 0.3*	13.6 ± 1.1	27 ± 2.4*
5%	90	14.4 ± 0.7	7.6 ± 0.7	10.6 ± 1.0	25 ± 1.9
10%	85	14 0 ± 1.0	7.1 ± 0.5	8.8 ± 0.3	18 ± 1.9
25%	35	9.3 ± 1.5	6.7 ± 0.5	5.3 ± 0.9**	15 ± 1.0
50%	10	3.2 ± 2.2**	2.0 ± 1.4	3.0 ± 1.7*	7 ± 4.5**
100%	0	0	0	0	0

± Standard error; * and **, significant difference from the control at $P = 0.05$ and 0.01 levels respectively.

water served as the control. After 24 h of soaking the solutions were decanted and the seeds arranged in germination towels and allowed to germinate for 8 days at 25 ± 2°C. On the day of termination (8th day) of the experiment the seed germination percentage and seedling growth parameters viz. (i) the length of the epicotyl and hypocotyl, (ii) the root length, and (iii) the number of lateral roots formed were recorded. The average values of duplicate experiments are given in table 1. Employing the *t* test the significant differences of the seedling growth parameters were statistically evaluated at $P = 0.05$ and $P = 0.01$ (table 1) levels.

In black gram, the lower concentrations of the effluent (up to 2.5%) promoted seedling growth. Similar growth was observed earlier in *Cajanus cajan*[4] and *Oryza sativa*[5,6] treated with different industrial effluents.

The inhibition of seed germination and subsequent seedling growth at higher concentrations of the effluent might be due to the high levels of total dissolved solids which enrich the salinity and conductivity of the solute absorbed by seeds before germination.

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RUSSULA CRUSTOSA PECK—AN ADDITION TO INDIAN EDIBLE MUSHROOMS

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DURING our studies on the fleshy fungi of North-Western Himalayas, an edible species *Russula crustosa* Peck was collected which is described here as new to India[1]. The specimens have been deposited in the Herbarium, Department of Biosciences, Himachal Pradesh University, Shimla (HPUB).

Russula crustosa Peck, 39th Report, New York State Museum Nat. Hist. 41. 1886. Figure 1A–G.

Pileus 6–14 cm diam, convex when young, soon expanding and becoming plane with a shallow depression in the centre, sometimes subinfundibuliform in age; cuticle thin, slightly viscid when moist, but soon dry, dull, breaking into small crustose patches, yellowish brown to olive brown or greyish yellow[2]; margin incurved at first, becoming decurved to plane, prominently tuberculate-striate 0.5–1.0 cm from the edge inward. Taste mild. Odour nil. Lamellae adnexed to adnate, close, distinct, separable from the flesh, brittle, equal in length, often forked at or near

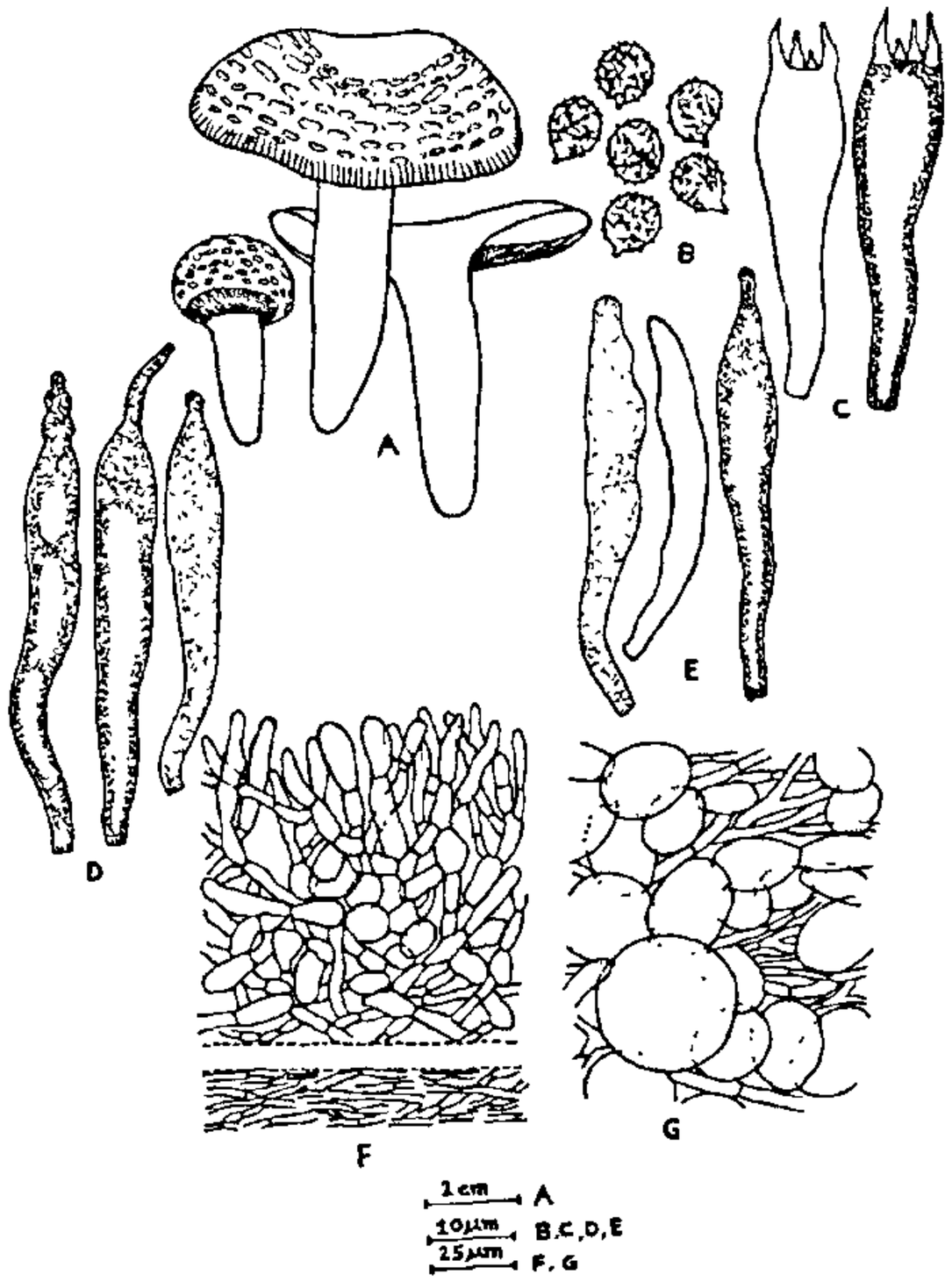

Figure 1A–G. *Russula crustosa* Peck: **A.** Basidiocarps with longitudinal section; **B.** Basidiospores; **C.** Basidia; **D.** Pleurocystidia; **E.** Cheilocystidia; **F.** Cross section through pileus showing cuticle (part), and **G.** Pileus context (part).

the stipe, acute in front, yellowish white; edges entire. Stipe 4–9 cm long and 1.0–2.5 cm diam, central, cylindric equal in diam throughout or tapering slightly towards the base, dry, glabrous, stuffed, white to yellowish white. Spore colour in mass yellowish white. Spores 5.5–8.0 (–9.6) × 4.8–6.4 (–7.0) μm, usually broadly ellipsoid to obovate, occasionally elliptic, reniform, pip-shaped or subglobose; ornamentation 0.3–0.8 (–1) μm high, of convex to conic warts and a few connectives forming a partial to nearly a complete reticulum; apiculus 0.8–1.5 μm long. Basidia 30–52 × 7.0–11.2 μm, clavate, tetrasporic; sterigmata up to 6.5 μm long. Pleurocystidia 36–82 × 5–9 μm, subcylindric, clavate, fusoid-clavate or fusiform; abundant. Cheilocystidia 36–70 × 5.0–8.5 μm, subcylindric, clavate or fusoid. Subhymenium 20–42 μm thick, pseudoparenchymatous. Pileus subcutis 80–350 μm thick, consisting of horizontally oriented, interwoven, non-gelatinous hyphae, 1.5–5.0 μm diam whereas the epicutis 50–120 μm thick, of ascending to erect, non-gelatinous hyphae with lower cells inflated, 5–20 μm diam and the free ends slender to short cylindric, clavate, lanceolate and tapered apically. Hymenophoral trama, pileus context and stipe context heteromerous.

Chemical tests (stipe surface): With 2% aq. phenol — greyish reddish brown; with 10% ferrous sulphate—yellowish pink; with formalin—negative.

Habit and habitat: Solitary or scattered, associated with *Cedrus deodara*, *Picea smithiana*, *Pinus wallichiana*, *Quercus incana* and *Rhododendron arboreum*.

Specimens examined: Acc. Nos. Shimla; HPUB 1167, 1350, 1363, 1375, 1416, 1497, 1533.

Remarks: This species resembles with the description of *Russula crustosa* Peck as given by Shaffer[3] in all details. It is reported as edible by Krieger[4] and Lincoff[5].

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ABNORMALITY IN OLFACTORY ORGAN AND JAWS OF THE EXOTIC CARP, *CYPRINUS CARPIO COMMUNIS* (LINN.)

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ALONG with normal fishes, a specimen of *Cyprinus carpio communis* (Linn.) with abnormal olfactory organ and jaws, was collected from Hussainsagar lake. Olfactory organs were dissected for detailed study and X-ray photographs were taken for both normal (figure 5) and abnormal (figure 6) fish of the same length range i.e. 264 mm. The olfactory organ[1] and morphometric details[2] of normal fish