

Table 2 Infectivity of components of immature seeds collected from BICMV infected cowpea

Pod No.	Seed No.	Infectivity on <i>D. biflorus</i> primary leaves	
		Embryo	Cotyledons
1	1-8	—	—
2	1	+(15)*	+(11)
	2	+(2)	+(3)
	3	+(1)	+(2)
	4	+(10)	+(11)
	5	+(1)	—
	6	—	+(1)
3	1-4	—	—
4	1-7	—	—
5	1-3	—	—

* Average number of lesions/leaf; BICMV was absent in seed coats.

common mosaic virus in bean⁷, bean yellow mosaic virus in yellow lupine⁸, cowpea banding mosaic virus in cowpea⁹ and pea early browning virus in pea¹⁰, where the infection distribution is at random among the seeds of single pods.

Table 3 Infectivity of components of mature seeds collected from BICMV infected cowpea

Pod No.	Seed No.	Infectivity on <i>D. biflorus</i> primary leaves	
		Embryo	Cotyledons
1	1-4	—	—
2	1-5	—	—
3	1-6	—	—
4	1	+(2)*	+(1)
	2	+(3)	+(1)
5	1	+(1)	+(2)
	2	+(4)	+(3)
	3	+(4)	+(2)
	4	+(2)	+(1)
6	1	+(2)	+(3)
	2	+(1)	+(2)
	3	+(1)	+(1)
	4	+(2)	+(2)
7	1	+(2)	+(3)
	2	+(2)	+(1)
	3	+(1)	+(2)
8	1	+(2)	+(3)
	2	+(2)	+(1)

* Average number of lesions/leaf; BICMV was absent in seed coats.

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LACTARIUS HYGROPHOROIDES BERK. & CURT. AN EDIBLE WILD MILKY MUSHROOM NEW TO INDIA

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DURING fungal forays of North-Western Himalayas *Lactarius hygrophoroides* Berk. & Curt. not recorded from India¹ was found. The basidiocarps exude a white milky latex which does not change on exposure. The specimens have been deposited in the Herbarium, Department of Biosciences, Himachal Pradesh University, Shimla (HPUB) as also with Dr M. Locquin, France.

Lactarius hygrophoroides Berk. & Curt., *Ann. and Mag. Nat. Hist.*, III, 4, 293, 1859, figure 1 A-F.

Pileus 4-10 cm wide, convex at first, becoming plane, centrally depressed, sometimes subinfundibuliform; surface dry and usually with a velvety sheen, azonate, at times rugose, golden yellow to yellowish brown²; margin inrolled when young, becoming plane with age, smooth; flesh rigid but brittle, pallid; latex white, unchanging, Copious. Taste mild, odour indistinctive, lamellae arcuate-

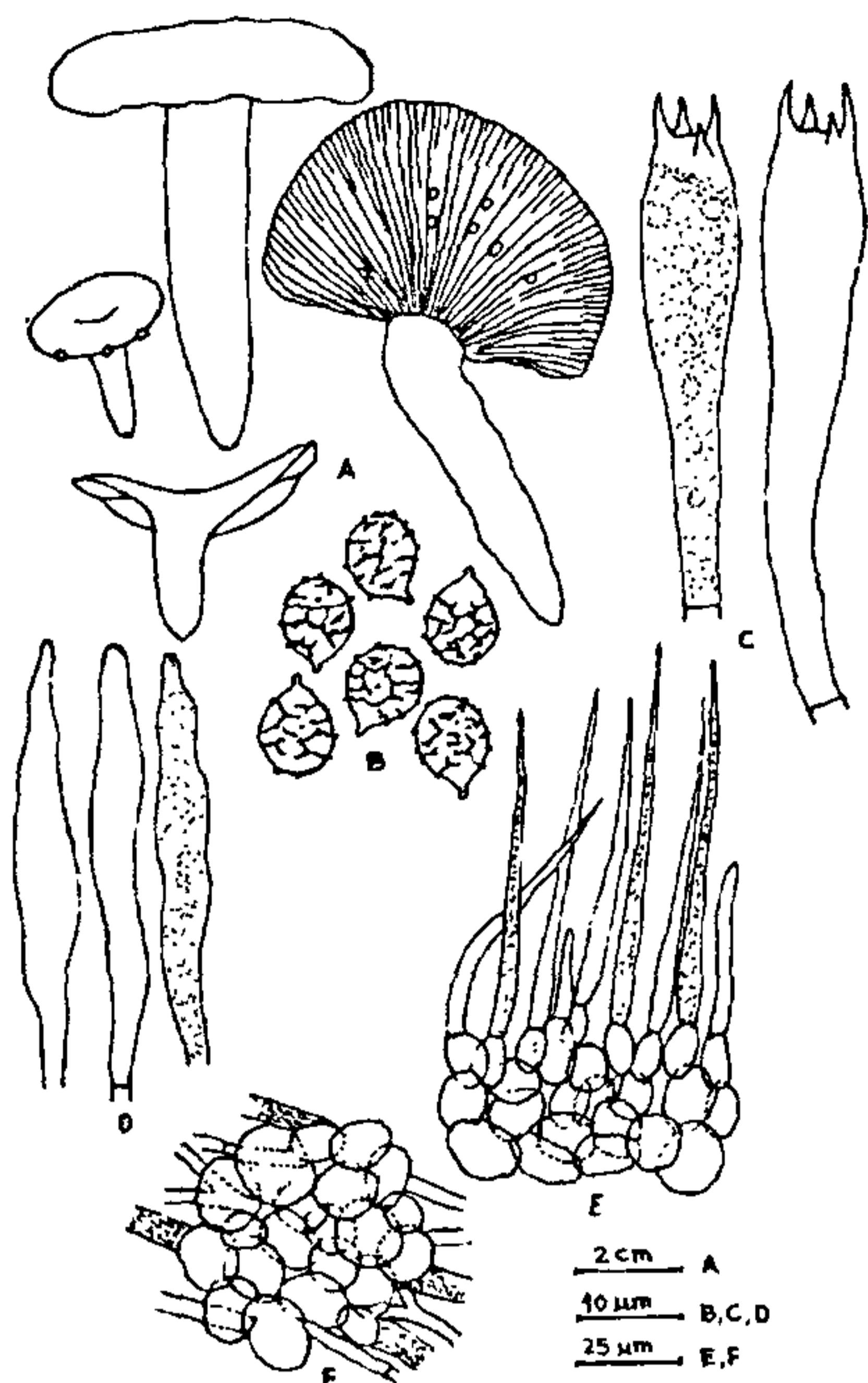


Figure 1A-F. *Lactarius hygrophoroides* Berk. & Curt. A. basidiocarps with longitudinal section; B. basidiospores; C. basidia; D. cheilocystidia; E. pileus cuticle with Pilocystidia (part); F. pileus context (part).

adnate to decurrent, distant, lamellulae present in 1-2 tiers, narrow to moderately broad, whitish to pale, not forking, not staining; edges even, stipe 4-9 cm long and 1-2.5 cm wide, solid, more or less concolorous with the pileus, glabrous or with an unpolished velvety sheen. Spores white in mass, $7-10 \times 6-7.5 \mu\text{m}$, broadly ellipsoid to subglobose, amyloid, coarsely reticulate, Ornamentation of thick lines and a few warts; apiculus $1.0-1.6 \mu\text{m}$ long. Basidia $48-80 \times 7-10 \mu\text{m}$, clavate, thin-walled, tetrasporic; sterigmata $3-8 \mu\text{m}$ long. Pleurocystidia absent; cheilocystidia rare to scattered, hyaline, flexuous to subcylindric, $30-50 \times 5-8 \mu\text{m}$, hardly distinct from young basidia. Subhymenium not well differentiated. Hymenophoral trama consisting of (i) hyaline, thin-walled, septate hyphae without clamp connections, $2-5 \mu\text{m}$ diam, (ii) sphaerocysts up to $32 \times 24 \mu\text{m}$; lactiferous hyphae $4-8.5 \mu\text{m}$ diam. Pileus cuticle $60-105 \mu\text{m}$ thick, made up of enlarged cells, up to $24 \times 20 \mu\text{m}$, thin-walled, slightly yellowish in KOH, giving rise to

numerous, erect, slender projections as Pilocystidia. Pilocystidia $40-125 \times 2.5-5.5 \mu\text{m}$, hyaline, thin-walled, slender to cylindrical structures, gradually attenuating upwards. Pileus context consisting of (i) hyaline, thin-walled, septate hyphae without clamp connections, $2-6 (-9) \mu\text{m}$ diam, (ii) sphaerocysts up to $38 \times 30 \mu\text{m}$; lactiferous hyphae $6-10 \mu\text{m}$ diam. Stipe cuticle is similar to pileus cuticle, $50-75 \mu\text{m}$ thick, made up of enlarged cells up to $12 \times 10 \mu\text{m}$, giving rise to numerous, erect slender projections as caulocystidia. Caulocystidia $30-76 \times 2.5-5.5 \mu\text{m}$, hyaline, thin-walled, slender to cylindrical structures, gradually attenuating upwards, apex acute or obtuse. Stipe context consisting of (i) hyaline, thin-walled, septate hyphae without clamp connections, $2-6 (-8) \mu\text{m}$ diam, (ii) sphaerocysts up to $34 \times 28 \mu\text{m}$; lactiferous hyphae $6-10.5 \mu\text{m}$ diam. chemical tests: 2% aq. phenol. Cutis and flesh reddish-grey; 10% FeSO_4 . Cutis and flesh greyish-green; formalin-negative.

Habit and habitat: Scattered to gregarious, associated with *Cedrus deodara*; *Picea smithiana*; *Pinus roxburghii*; *Quercus incana* and *Q. dilatata*.

Specimens examined: Acc. Nos. Shimla; HPUB 1164, 1178, 1251, 1358, 1436, 1488, 1564, 1670.

Remarks: This species is characterized by its dry and velvety golden yellow to yellowish brown cap; whitish to pale, distant gills and white, mild, unchanging latex. *Lactarius volemus* (Fr.) Fr. is similar but differs from the present species in having close gills and brown staining latex. *L. corrugis* Peck has red brown corrugated cap and close gills. The species is consumed in various parts of Himachal Pradesh especially by the Gorkhas.

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