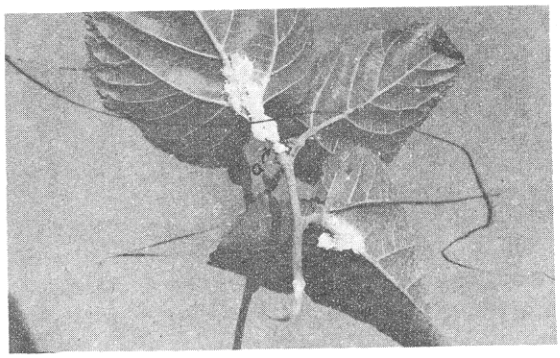

Figure 1 Mulberry leaves infested by *Icerya aegyptica* and also showing pupa of *Scymnus*. sp. (a).

Besides, black sooty-mould on leaves below in line of the infested shoot interfering with photosynthetic activity of mulberry leaves, all the dormant budwood on the infested shoot was killed leaving only terminal reduced leaves, thus affecting leaf production and rendering the shoot to become unfit for planting.

The crawlers and sedentary forms of *I. aegyptiaca* were found prayed upon by both the grubs and adults of *scymnus* (*Pullus*) sp., while *I. purchasi* by *Rodolia breviuscula* (Coleoptera: Coccinellidae). The predators also persisted breeding in the hosts colony. *Scymnus* sp., breed on lower surface of leaves close to colonies of the mealy bug (figure 1a). A maximum of five-pupae per infested leaf was observed in May 1984 and the plants were disinfested completely by the predators.

The study indicates that *I. aegyptiaca* now recorded on mulberry has great destructive potentialities as it is expanding the host range.

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SCHIZOPHYLLUM COMMUNE Fr.-FIRST RECORD FROM INDIA ON STEM BLEEDING AFFECTED COCONUT PALM

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THE incidence of stem bleeding disease was first reported from Sri Lanka and subsequently from India, the Philippines, Malaysia, Andamans and Trinidad[1].

The characteristic symptom of this disease of the coconut palm is the exudation of a dark reddish brown fluid from the cracks on the trunk portion of the palm. The etiology of the disease has not been conclusively proved so far.

While studying the fungi associated with the disease affected palms located at Kandalloor (Alleppey district, Kerala) a constant association of *Phomopsis cocoina* (Cooke) Punith. was observed in the stem tissue[2]. In addition to this a basidiomycete fungus with fructification was also isolated from the roots, infected stem and apparently healthy stem tissue away from the bleeding patches of about 60% of the palms studied.

The basidiomycete isolated from the stem bleeding affected palms was sent to the Forest Research Institute, Dehra Dun and got identified as *Schizophyllum commune* Fr. This fungus was noticed in coconut[3] quite some time back.

The world wide distribution of *S. commune* as a virulent wood-rotting fungus in forest trees is well known[4–6]. It is also reported that *S. commune* is associated with diseases like heart rot in apple, cherry, plum, bark diseases in peach trees and stem necrosis on young poplar trees[7,8]. Stem rot disease of apple associated with *S. commune* reported from Bangalore[9] was characterized by cankers on the main stem and branches, often accompanied with a dark brown exudation. The symptom of exudation of dark brown fluid described in apple trees appears to have some resemblance to the stem bleeding disease in coconut. Studies to ascertain the possible role of *P. cocoina* and *S. commune* in the causation of stem bleeding disease are in progress.

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USING OF BRIDGING SPECIES IN INTERSPECIFIC HYBRIDISATION IN GENUS *CARICA*

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THERE are numerous examples where species hybrids offer a great reservoir of variability for improvement of cultivated species. Incorporation of genes for disease resistance is normally one of the common objectives in breeding programme while utilising an alien species. In the genus *Carica*, to which the papaya (*Carica papaya*) belongs, interspecific hybridisation offers enormous possibilities for obtaining disease resistance, though the methods to obtain certain interspecific hybrids are fraught with obstacles. In the present paper the use of a bridging species to overcome the crossability barrier between two *Carica* species has been demonstrated which has enormous significance in papaya breeding especially for resistance to the papaya mosaic virus which is taking a very heavy toll

Table 1 *Morphological features of interspecific and complex-hybrids*

Characters	*C. monoica*	*C. cauliflora*	*C. papaya*	F_1 *C. monoica* × *C. cauliflora*	F_1(*C. monoica* × *C. cauliflora*) × *C. papaya*
Stem					
Shape	Cylindrical upright	Cylindrical upright	Cylindrical woody	Cylindrical upright	Cylindrical
Colour	Green, turns brown when old	Brown	Brown	Green	Brown
Branching	Branching in leaf axil	Branching absent	Branching in leaf axil	Branching in leaf axil	No branching
Leaves					
Colour	Thick green	Dark, dull green	Green	Green	Thick green
Shape	lobed, 3–5 pointings	Broad, Entire and small lobes	Broad, Entire lobed (5–8)	Lobed (3–6)	Broad, Lobed (7–9)
Petiole	Medium & Slender	Long and cylindrical	Long and cylindrical	Medium and cylindrical	Short and cylindrical
Plant sex	Monoecious	Dioecious	Dioecious	Only one male plant was obtained	Dioecious
Panicle	Born on short stalk or clustered	Born on long stalk or clustered	Born on long stalk or clustered	Born on long stalk and clustered	Short stalk clustered
Shape					
Position	Axillary	Cauliflorous	Axillary	Axillary & Cauliflorous	Axillary
Flower					
Type	Slender	Broad & thick	Slender	Slender	Slender
Colour	Yellow	White	White	White	Yellow
Pollen-fertility	Highly fertile (95.71%)	Highly fertile (97.01%)	Highly fertile (95.60%)	Partially fertile (74.75%)	Highly fertile (93.08%)
Seed set	High	High	High	—	Medium