stomes in their loose faeces. Post mortem examination of 5 animals revealed numerous immature and mature amphistomes in the duodenum, abomasum and rumen assignable to *Cotylophoron* and *Gastrothylax* spp.

From this flock, 30 animals showing similar typical symptoms of the diesase were divided into 3 equal groups. Group 'A' was given 1 ml carbon tetrachloride (C.T.C.), with 3 ml liquid paraffin subcutaneously at the thigh region along with 5 gm of Hexachloroethane orally. Group 'B' was given C.T.C. as above with 100 mg Hexachlorophene orally. Group 'C' was given 1 ml C.T.C. orally with rice gruel after copper sulphate swabing.

After a week there was marked improvement in the general condition of animals of group 'A' and 'B' with only 2 and 1 deaths respectively. After 15 days all faecal samples from these groups were found negative for either amphistome eggs or their immature stages and the sheep recovered completely. Animals of group 'C' showed aggravated diarrhoea probably due to irritant action of the drug on the abomasal mucosa. Eight sheep died within a week and only 2 recovered.

These results suggest that carbon tetrachloride alone *per os* is not very effective but combination of antholumitic like Hexachloroethane or Hexachlorophene orally with C.T.C. subcutaneously proves more effective in natural outbreak of amphistomiasis in sheep. This supports the work of Mitterpak (1958) on *Facioliasis* of sheep.

Disease Investigation Control and Livestock Production Centre, Patna 800 014, Bihar.
J. S. AHLUWALIA.
A. N. SINGH.
August 5, 1975.

1. Alwar, V. S., "Amphistomiasis—A review of literature," *Indian Vet. J.*, 1959, 25, 41.
2. Mitterpak, J., "Profylakticka dehelmintizacia, Zaklad bojas fasciolosou domacich Zvierat," *Abst. Vet. Bull.*, 1959, 29, 320.

Diseases of Fruits from Haryana. I. A New Fruit Rot of *Zizyphus mauritiana* Lamk.

A disease of Ber fruit (*Zizyphus mauritiana* Lamk.) was observed and collected during March-April 1975 from the orchard of Haryana Agricultural University. The infected fruits were characterised by small, slightly depressed, dark-brown spots near the stem end. The erumpent pycnidia developed on these spots. Lesions were noticed on the ripe fruits. The lesions were irregular in shape measuring 15–25 mm in diameter.

The fungus was isolated on Czapek's medium and the cultural study of the fungus was done at 25°. The pathogenicity was proved by putting the spore suspension on the fresh and healthy fruits after slight injury. Infection was established after 72 hours of inoculating the fungus on the healthy fruits and same types of lesions were formed.

The morphology of the fungus under study resembles that of Sphaeropsidaceous genus *Phoma* described so far. It differs from other reported species in morphology and parasitism. It also differs from *Phoma zizyphi* Pat. in having smaller pycnidia and larger conidia. Therefore, a new species, viz., *Phoma hissarensis* is being proposed to accommodate this fungus.

Phoma hissarensis spec. nov.

Coloniae in agaro 'Czapeks' primo ablae et floccosae tum pallide brunneae vel brunneae. Pycnidia evolvuntur in culture, nemerosa, fusce brunnea. Pycnidia globosa vel subglobosa, ostiolata, erumpentia, 107. 10 × 92·82 (85·68–128·52 × 71·40–114·24) μ in diam. Conidiophora simplicia, hyalina, Conidia unicellularia, hyalina, ovales Vel ellipticae 3·4–10·2 × 3·4 μ.

Colony on Czapek's agar white and fluccose then turned into light brown to brown in colour. Numerous dark brown pycnidia form in culture. Pycnidia globose to subglobose, ostiolate, erumpent, measuring 107·10 × 92·82 (85·68–128·52 × 71·40–114·24) μ in diameter. Conidiophore simple, hyaline. Conidia unicellular, hyaline oval to elliptical, measuring 3·4–10·2 × 3·4 μ.

Varietal reaction of *Zizyphus* fruits to the above described fungus revealed that out of five varieties employed Seo-Bahadurgarhia was highly susceptible and it was followed by sonahari No. 5, Kaithi, Banarasi Karaka and Umran.

The culture is being deposited in Plant Pathology Laboratory, HAU Hissar (PPHAU 67), Herb. Crypt. India. Orient IARI, New Delhi and CMI, Kew, England.

The authors are grateful to Dr. B. S. Chundawat, Head of the Department, for providing laboratory facilities.

Department of Horticulture, Haryana Agricultural University, Hissar (Haryana),
P. C. GUPTA.
R. L. MADAAN.
August 6, 1975.

1. Saccardo, P. A., *Sylloge Fungorum*, Pavia, Italy, 1899, 14, 869.