Among the respiratory infections occurring in swine is swine enzootic pneumonia (SEP) characterized by a chronic course and accompanied by a persistent cough and retarded growth. Although the morbidity is high the mortality is low.

The etiologic agent of SEP, Mycoplasma broncopenumiae, was simultaneously reported in the United States of America (Mare and Switzer, 1965) and in Great Britain (Goodwin et al, 1966), and later reported in Canada (L'Ecuyer, 1968), and Japan (Takatori, 1969). The pulmonary lesions consist of well demarcated areas of consolidation varying from plum-colored greyish brown to greyish in color situated usually in the antero-ventral areas of the apical and cardiac lobes. Microscopic examination revealed pronounced peribronchial and perivascular infiltrates of lymphocytes and thickened alveolar septa due to proliferation of the septal elements. Other alterations reported were edema in varying degrees and frank obliteration of large areas by lymphocyte infiltration (Hodges et al, 1969; Pattison, 1956).

Although studies of the mycoplasmas are rather scanty in Brazil, this disease is considered common based on clinic-anatomic studies. As early as 1929 reports from São Paulo (Bueno, 1959a; Bueno, 1959b) described pulmonary lesions compatible with those now recognized as the result of SEP. More recently (1974), lesions of SEP were seen in swine from the Trassilium States of Minas Gerais and Rio Grande do Sul (Nogueira et al, 1974; Williams et al, 1977). Based on such evidence as failure to gain body weight, poor feed efficiency, clinical and anatomical studies, and isolation of M. broncopenumiae we propose that SEP occurs in Brazil.

A total of 840 swine of various breeds, usually about 6 months of age, were examined in abattoirs of the States of Minas Gerais, São Paulo (Alquianca Pauli) and Paraná (Ponta Grossa). Of these, 143 lungs with lesions suggestive of SEP were selected. Isolation of the organism was done according to the method of Friis (Friis, 1974). Blood agar plates were employed to identify other bacteria. Histologic studies were done on representative sections of affected lungs. Fixation was in 10% buffered formalin, embedding was in paraffin, and hematoxylin and eosin was the principal stain.

Gross pathology. In the 840 lungs examined, lesions of pneumonia were noted in 143. These were mainly confined to the antero-ventral areas, i.e., apical and cardiac lobes. The dark red to grey lesions were striking in that they were sharply delineated from the normal tissue. The bronchioli contained a yellow exudate. The occurrence of pneumonia lesions in swine is not uncommon in our experience, a fact noted by Gordon (1963). Furthermore, the conclusion that SEP was present was expected, as predicted by Bôtter (1967) who believed the disease is world-wide. Histoepithelial pathology. The histopathologic picture was highly variable, bronchial and perivascular lymphocytic infiltrates with septal thickening owing to lymphocytes and macrophages. In some instances the lymphoid hyperplasia reached a point where it caused compression of the bronchial structures and subsequent obstruction.