# INTRODUCTION

Cumin plant, Cuminum cyminum Linn., is a short annual herb. It is grown in Mediterranean areas for long time that its origin is difficult to trace. It is probably, a native of Turkestan or Upper Egypt. Today, cumin is also planted in East India and Southern Russia, (Guenther, 1960).

Cumin fruits are about 6 mm long and somewhat resemble caraway. They are covered with short bristly hairs. Whole cremocarps attached to short pedicles occur, as well as isolated mericarps. They are widely used as condiment for the flavouring of certain types of sousage, carminative, now chiefly used in veterinary medicine. Cumin seed oil is employed instead of the seed in many types of flavouring compounds, especially in carries and culinary preparations of oriental character. Omar and Mahmoud (1980) reported that cumin plants thrives best on a well-drained, rich, sandy loam soil, in winter. To control Fusarium wilt which is a big problem for its production, healthy seed and uninfested soil are recommended.

The cultivated area with cumin in Egypt according to the reports of Ministry of Agric. (1986) reached about 5404 feddans mainly in El-Minia and Assiut Governorates, produced a total yield of about 2087 tons/year.

Many serious diseases attack cumin plants and cause great reduction in the crop, especially those which attack the roots (Shata, 1969).

This investigation is mainly dealing with the isolation of the causals of root, seed and seedling diseases of cumin plants grown in different localities of Upper Egypt and their control.

Pathological and physiological studies on the isolated fungi with special reference to Fusarium oxysporum f.sp. cumini (Prasad and Patel) and Fusarium solani were carried out in the laboratory and greenhouse of the Plant Pathology Research Institute, Agric. Research Centre, Giza, Egypt. Field experiments carried out in the Experimental Farm of Mallawi Station during 1983 and 1984 seasons.

Seed health testing is carried out in the laboratory of the Plant Pathology Research Institute , Agric. Res. Centre, Giza, Egypt and in the laboratory of Danish Government Institute of Seed Pathology for Developing Countries in Denmark.