

PEAT LAND CONSERVATION AND PEAT DUST ABATEMENT--The long range goal is that of assisting in maintaining a stable agriculture in the Delta concomitant with lessening the subsidence rate and loss of land. Specifically to develop methods of reducing erosion of peat land by wind; to assist in the introduction of suitable new crops; to determine the factors affecting the subsidence of peat land and to seek methods of minimizing its rate; and to determine the meteorological conditions that contribute to wind erosion of Delta soils.

Previous work within this project has developed inter-row planting of grain in asparagus for dust control to a point where it can now be used successfully on a wide scale. A continuing search will be made for inter-row plants more suitable for the job as well as better techniques and management methods. Feasibility of strip cropping, particularly barley and wheat in corn, will be studied. Windbreaks for dust control will be studied from the standpoints of both horticultural and engineering design problems. The feasibility of blueberries, grapes, and irrigated pasture for cattle production will continue to be studied. The biological and other factors involved in oxidation and subsidence of organic soils will be investigated. Further elucidation of subsidence will be made by observing elevation changes of both surface and specific locations within the soil profile. Climate recorders will continue to be operated. Salt and water movement in organic soils will continue to be investigated. Basic characteristics of various peats will be studied to determine differences that contribute to their susceptibility to blowing.

PEAT LAND CONSERVATION AND PEAT DUST ABATEMENT--The long range goal of the University in this project is that of assisting in maintaining a stable agriculture in the Delta concomitant with lessening of the subsidence rate and consequent loss of this valuable natural resource. Specifically to develop methods of reducing the erosion of peat land by wind; to determine the feasibility of: (a) the culture of crops that will not expose dry peat to the action of wind, and (b) the production of livestock on irrigated pastures on peat lands of the Delta; to determine the factors affecting the subsidence of peat land; to determine the meteorological conditions that contribute to wind erosion of peat; and to determine the characteristics of various peat soils in relation to their susceptibility to blowing.

Previous work within this project has developed inter-row planting of grain in asparagus for dust control to a point where it can now be used successfully on a wide scale. A continuing search will be made, by means of variety trials, for inter-row plants more suitable for the job. Feasibility of strip cropping, particularly barley and wheat in corn, will be studied. Windbreaks for dust control will be studied from the standpoint of horticultural problems involved and from the engineering design aspect. For two years blueberry plants have shown a small but favorable response to the partial shading and probable higher humidities due to the interplanting of corn. They will be grown for an additional year without the corn to determine whether the present increased vigor can be maintained without the shade. One and two year old grapes growing on mineral and mineral-peat soils will be observed for growth, vigor, fruit quality, and response to various water tables. Irrigated pasture and the livestock pastured thereon will continue to be observed for problems arising from the unique situation, particularly the probability that some new irrigation method may be needed to prevent excess salt accumulation caused by sub irrigation. The biological and other factors involved in the oxidation and subsidence will be studied. Further elucidation of subsidence will be made by means of elevation changes of both soil surface and specific locations within the profile. Spot climate recorders have been operated in various parts of the Delta since the project was initiated. Resulting information is valuable for designing windbreaks and other dust control methods. The recorders will continue to be operated to give a more complete picture of meteorological conditions throughout the area. Basic characteristics of various peats will be studied to determine differences that contribute to their susceptibility of blowing.