

PRELIMINARY INVESTIGATIONS INTO THE

USE OF KRILIUM FOR MARKET

GARDEN USE.

By

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1. INTRODUCTION

The results obtained from preliminary investigations, under temperate conditions, into the use of synthetic polyelectrolytes as soil conditioners, show great promise. When applied in quantities ranging from 0.02 to 0.2 percent by weight of dry soil, they have produced marked increases in soil aggregation and related properties such as porosity and permeability, appear to have no adverse influence on the available moisture capacity of the soil, do not tie up plant nutrients, are non-toxic, appear to be highly resistant to microbial destruction and appear not to be leached out of the soil. Regarding the effect on plant growth and yield increases, the results are somewhat varied, in all cases there is not an increase in yield, but generally earlier growth was obtained. In connection with real problem soils, such as saline and alkaline soils, the improvements with regards yields have been very marked.

Should these results appertain to tropical conditions, then the use of krilium as a means of producing and maintaining soil structures, hence increasing yields over long periods of time, would be invaluable. Any organic matter applied to the soil undergoes such rapid decomposition, that the benefits derived from large applications are soon lost, and unless further applications are made, the desirable soil structure required for maximum fertility and plant growth are non-existent, and consequently the establishment and growing of annual crops becomes a problem.