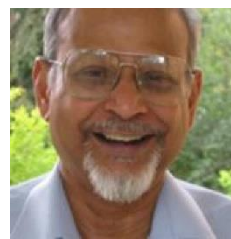




SOIL SCIENCE
AUSTRALIA



The Chemistry of Dispersive Soils

with Pichu Rengasamy

THURSDAY 26 NOVEMBER 2020

4.00 pm ACDT (Adelaide)

Room 118 Charles Hawker Building
Waite Campus



Pichu Rengasamy is a visiting Research Fellow in the School of Agriculture, Food and Wine of the University of Adelaide. He has worked on different aspects of salt-affected soils in Australia for the past 40 years, both in The University of Adelaide and in the Victorian Department of Agriculture. Pichu has focussed his research on the chemical physics of sodic and saline soils in irrigated and dryland regions. His collaborative works clearly distinguished sodic soils from saline soils, the former affecting soil physical properties due to dispersive behaviour. He flagged the new concept of degree of ionicity of adsorbed cations influencing sodic behaviour.

With further work in Adelaide, along with the contributions from his students, Pichu hypothesised dispersive potential and CROSS. The controversies over the role of K and Mg in soil structural stability and the criteria of sodicity based on ESP were resolved by his quantification of ionicity index, dispersive charge and flocculation charge. His works on saline soils, in collaboration with plant scientists, led to the awareness of transient salinity, soil chemistry factors confounding crop salinity tolerance, soil processes affecting crop production in salt-affected soils and breeding strategy for improving tolerance to dispersive soils.