



Symptoms of potassium deficiency in banana trees

Banana plants have a high potassium requirement. Since the potassium cation (K^+) is rather mobile in both the xylem and the phloem transport systems of the plant, and since the plant is programmed to prefer the development of young tissues, the tendency is to extract the K from the old organs and tissues, and to pass it to the newer ones. This is the reason for the general phenomenon that K deficiency shows up firstly on the older and more mature foliage of the plant. Indeed, K deficiency in banana plants first manifests itself in older leaves. They yellow prematurely developing discoloration and chlorosis that start on these leaves' tips and distal margins. These symptoms progress towards the leaves' base, see photos underneath. The affected areas subsequently develop necrosis with the same evolvement pattern. Additional K deficiency symptoms are: Reduced leaf size, delayed bunch emergence, reduced finger (individual fruit) size due to poor filling, reduced number of fingers/hand, reduced number of hands/bunch, reduced bunch weight and reduced yield. Reduced dry matter accumulation, reduced contents of TSS & sugars and reduced sugar/acid ratio in the fruit. Higher disease incidence.