FUSARIUM WILT OF BANANA AND NUTRITIONAL PLANT STATUS.

LA MARCHITEZ POR FUSARIUM DE LOS BANANOS Y EL ESTADO NUTRICIONAL.

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Fusarium wilt (FW) impairs banana production in large areas of Brazil, affecting mainly the most profitable cultivars: 'Maçã' (Silk, AAB) and 'Prata' (Pomme, AAB). Plant nutrition is frequently associated with disease severity, but little is known about the banana-FW pathosystem in Brazil. In this work we samples 18 farms in four different production systems in SP. In each farm areas with low (FOC-) and high (FOC+) incidence of FW were selected for plant analysis. Lamina of the third leaf were sampled and analyzed for nutrient content. The main differences between FOC- and FOC+ areas were related to N, K and Ca contents. The most outstanding effect of FW on plant nutrition was the reduction of K and Ca. This might be explained by the fact K and Ca are highly linked to water transport and FW causes severe damages in the vascular system. Interestingly, a relative increase of N content was also observed in some FOC+ plants. This may be due to a concentration effect as a result of growth reduction caused by FW. Our data suggest FW triggers a feedback mechanism towards destabilization in banana. The significant reduction of Ca and K detected on infected plants and the documented role of these nutrients on plant resistance, open opportunities to better understand soil-based management strategies of FW in banana.