RegenPGC Graduate Education Community

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Light competition in maize and perennial ground cover intercropping: The shade avoidance strategy

Abstract Intercropping offers many potential benefits, however in many cases the growth of both plants suffers because of competition, and these competition dynamics between plants in intercropping systems are not well understood. Competition for light involves sophisticated plant responses, including shade avoidance mechanisms, to maximize light interception and minimize shading effects. Understanding these mechanisms is crucial for optimizing crop productivity in intercropping systems. The objective of this study is to analyze the effect of a perennial ground cover (PGC) growing in the maize inter-row during different timings. The hypothesis is that the light competition and its consequent shade avoidance response are responsible for changes in maize phenotyping and yield reduction.

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