Quantifying Soybean CO2 Exchange with Chlorophyll Content

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Soybean is a major crop grown in Arkansas. Studying plant development is important to inform management decisions such as irrigation or chemical applications to maximize yield. The chlorophyll content of each leaf was measured and compared to the carbon dioxide exchange. The chlorophyll content was higher at leaves closer to the top compared to the bottom possibly related to more sunlight at top of canopy. The CO2 exchange went down because photosynthesis uses CO2. by Identifying most productive leaves, highest chlorophyll content and greatest reduction of CO2, producers and scientists can target management to maximize plant productivity.

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