



ECOPHYSIOLOGY AND NUTRITION OF COCOA

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Abstract

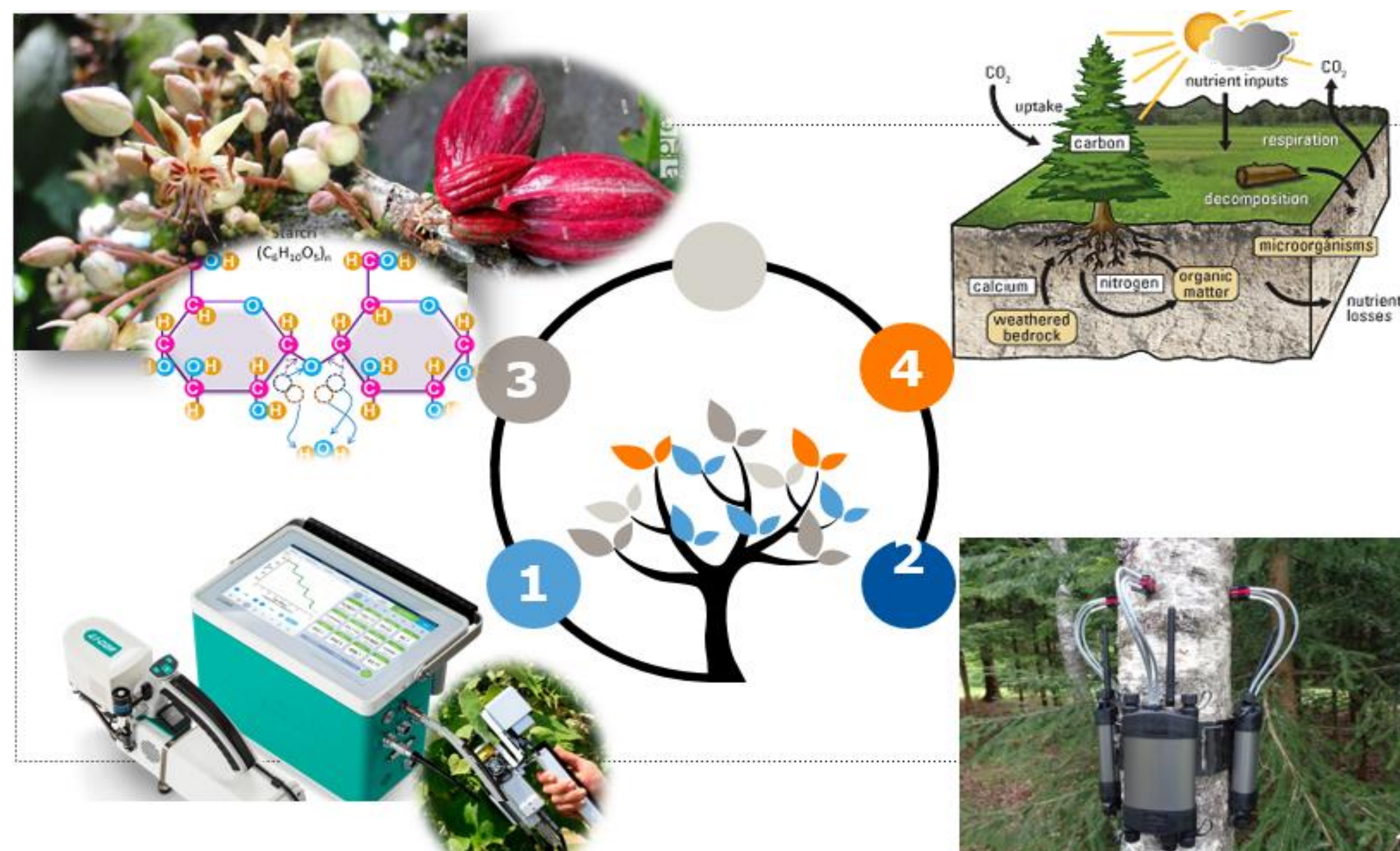
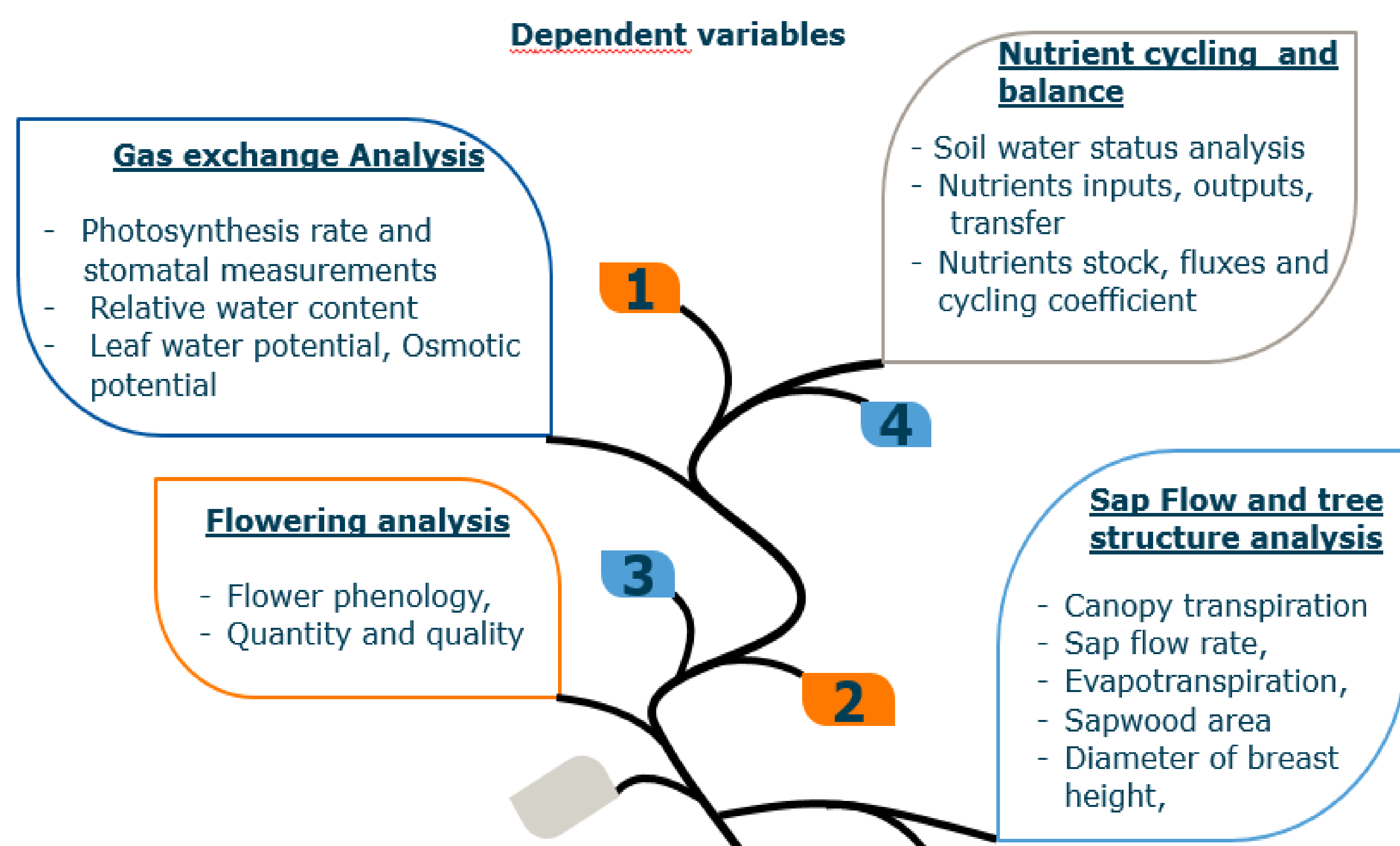
Due to climate change, cocoa is susceptible to suffer from environmental stresses such as drought stress during its development and each seasons. This mechanism implies water deficit that induces different internal responses (Balasimha, 2011). Thus, the main objective of this study is to assess physiological responses of cocoa to different levels of potassium treatments under drought stress in view to identify involved interactions.

Keywords: Soil fertility, K, drought

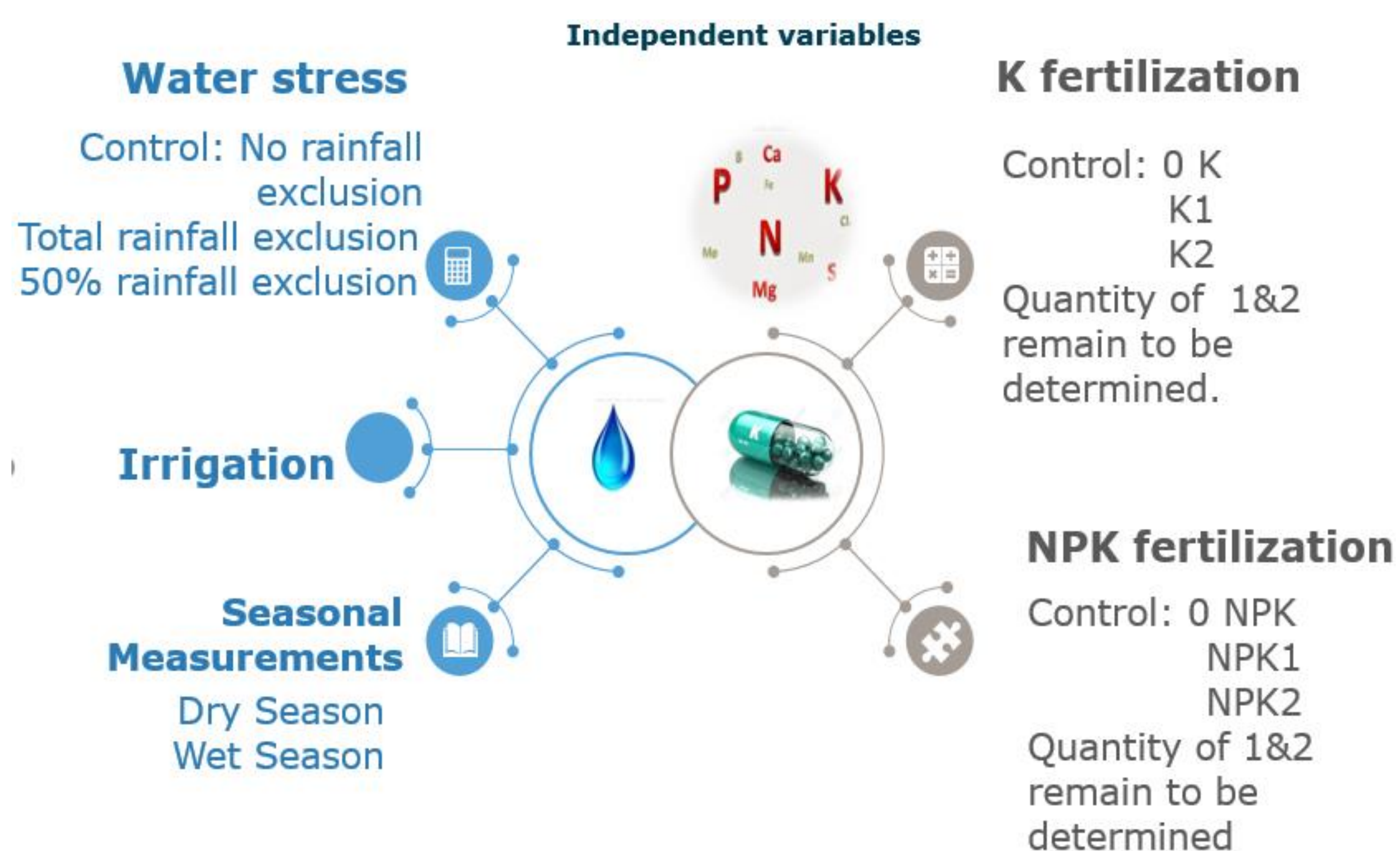
Objectives and Methods

- 1- To assess cocoa photosynthetic responses to water stress under K supply
- 2- To examine stem sap flow variation of cacao tree in response to drought stress and K treatments
- 3- To elucidate the implication of K on drought resistance of cocoa flowering induction, bud development and fruit setting,
- 4- To assess K cycling, nutrients uptake, mobilization and water stress on cacao growth and yield.

Measured variables



Treatments



Discussion

- Mature trees will be considered
- Farm is chosen within 4 AEZ and 2 agroclimatic zones
- Experiment design consists of 3 × 3 factorial with 3 water deficit levels and 3 nutrients levels treatments with 6 replicats
- 3×3×3= 27 plots for experiment × 9 trees= 486 trees/farm
- 3 Water treatments, 3 Nutrients levels, 6 Replicates

References

Balasimha, D. (2011). Towards understanding the physiology of cocoa (*Theobroma cacao* L.). Journal of Plantation Crops (India).

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