Brazilian Agricultural Research Corporation

EESC · USP São Carlos School of Engineering University of São Paulo

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How do runoff and soil loss vary over time in subtropical areas?

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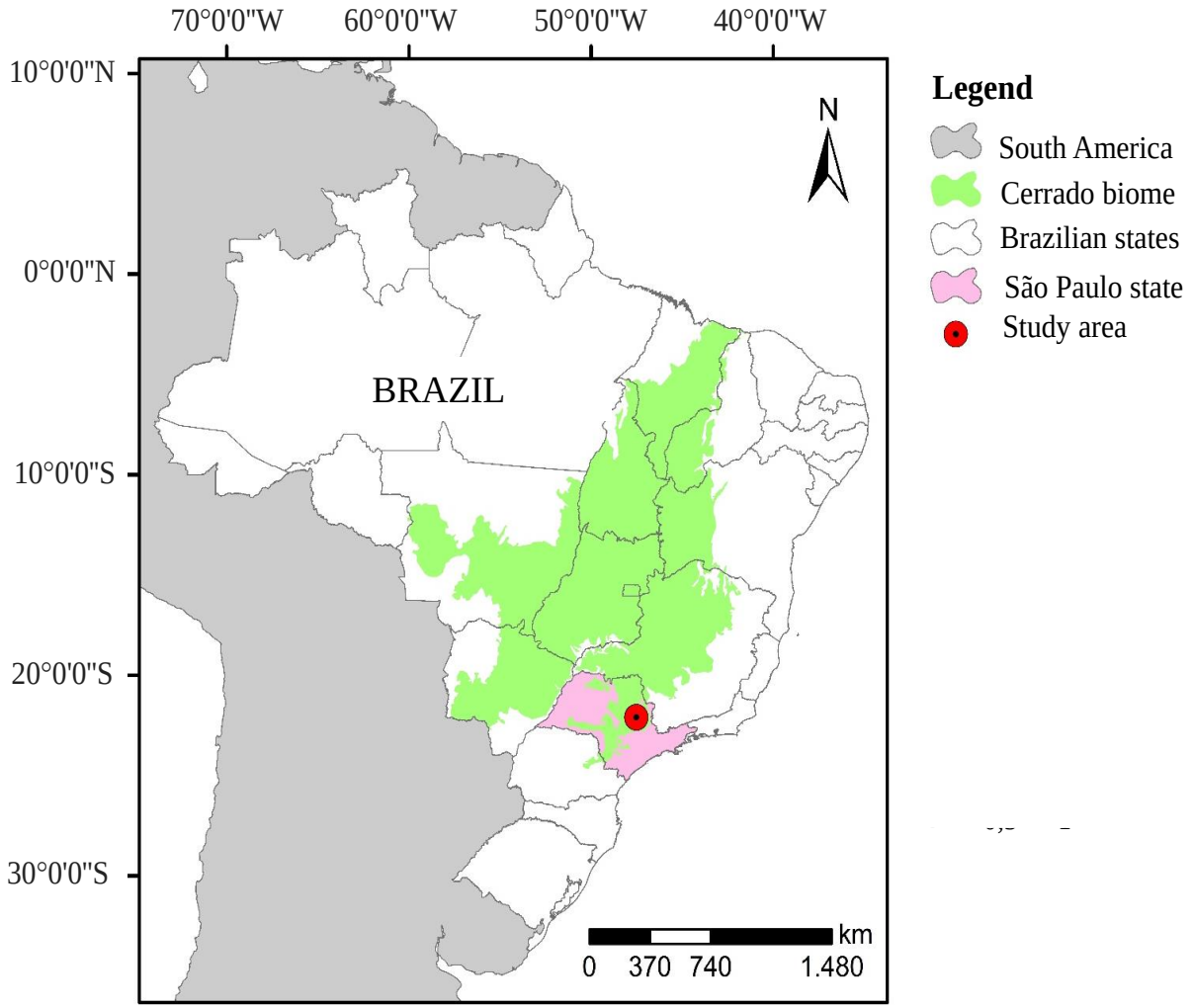
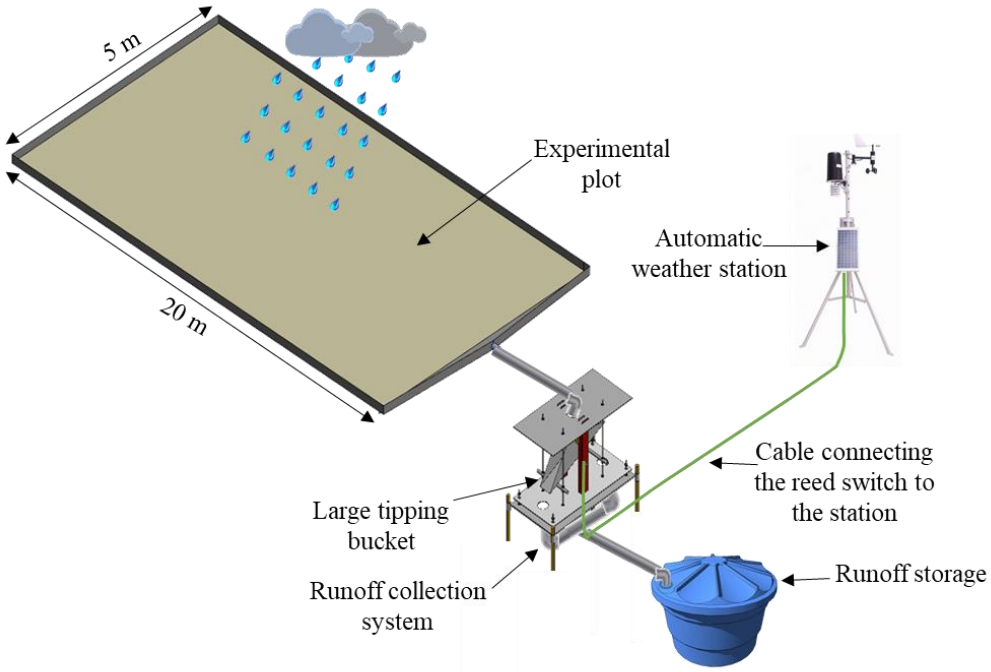
OBJECTIVE



- Investigate the temporal component (10 years) affects in the runoff and soil loss on a typical soil found in the Cerrado biome (Brazilian Savanah).

METHODOLOGY

Study area



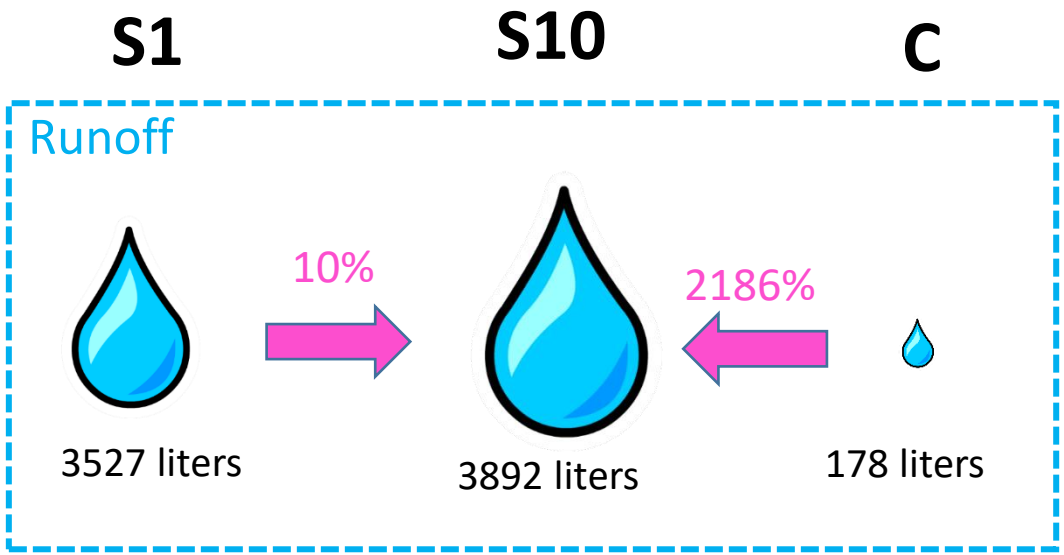

S10: Bare soil 10 years old

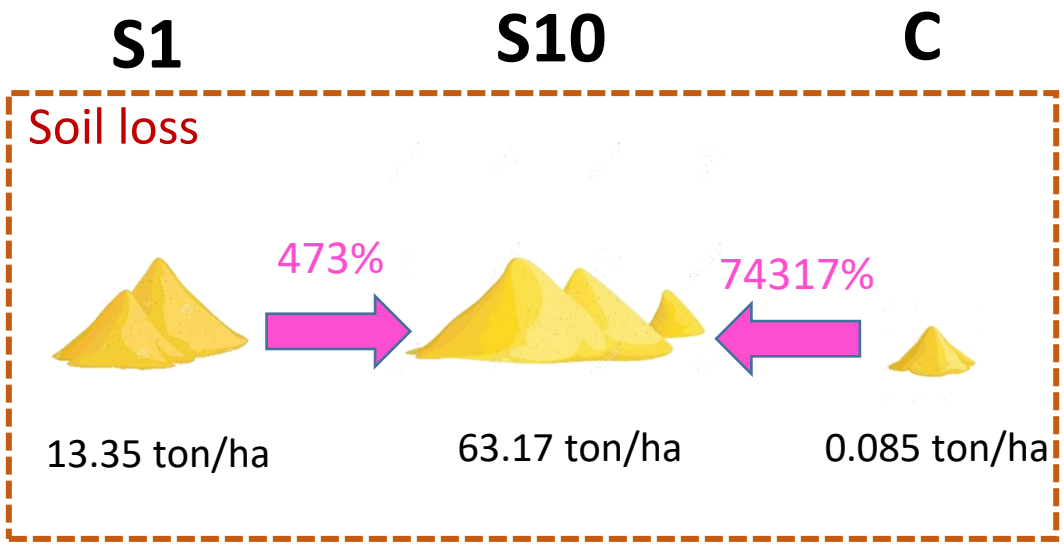

S1: Bare soil 1 year old


C: Cerrado

Source: Author.

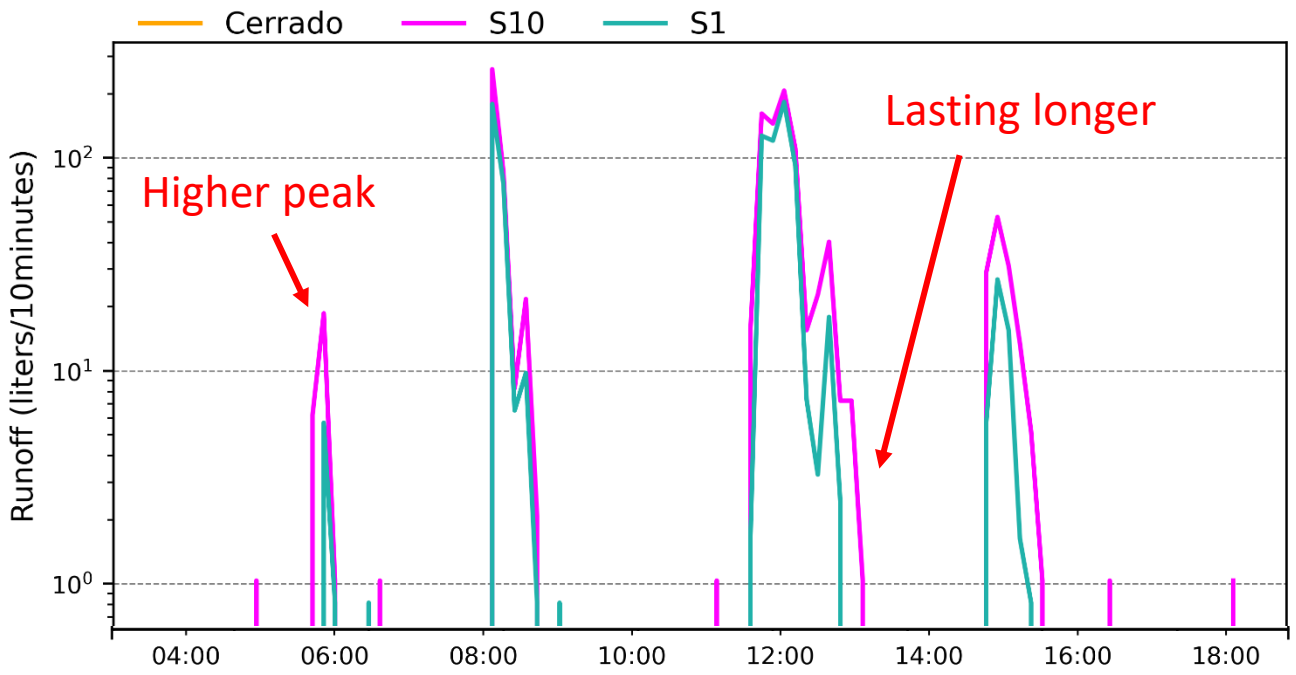
RESULTS

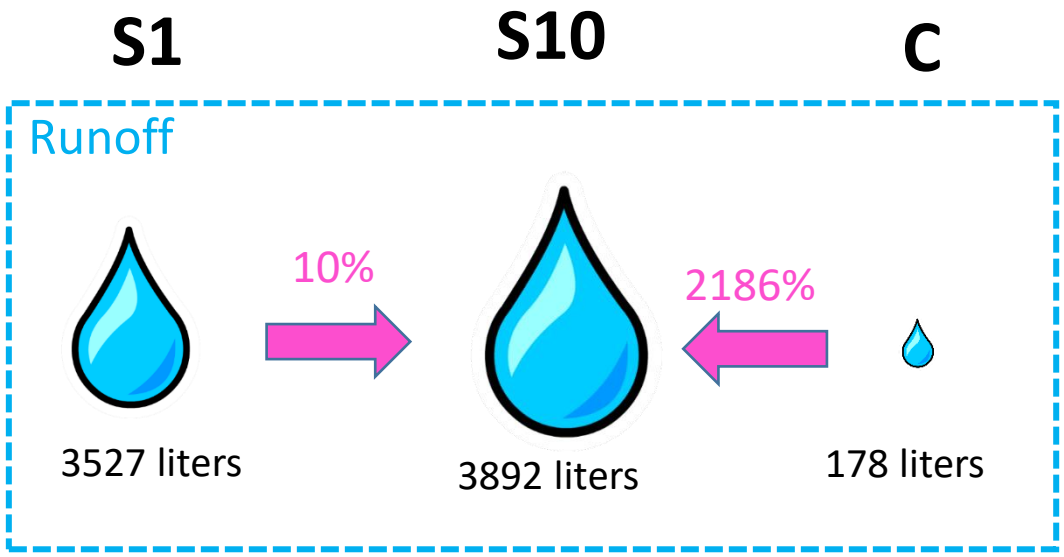


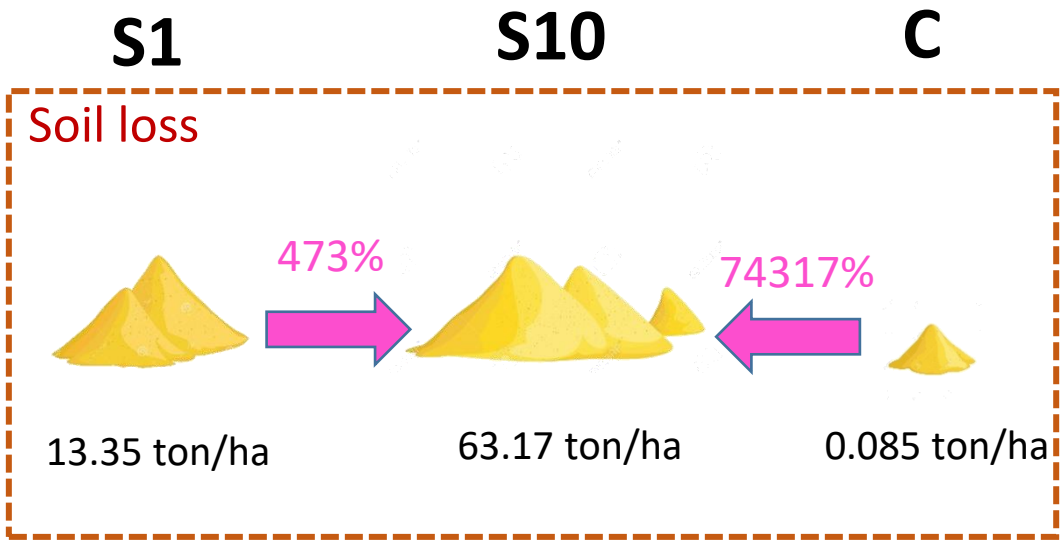


Source: Author.

RESULTS





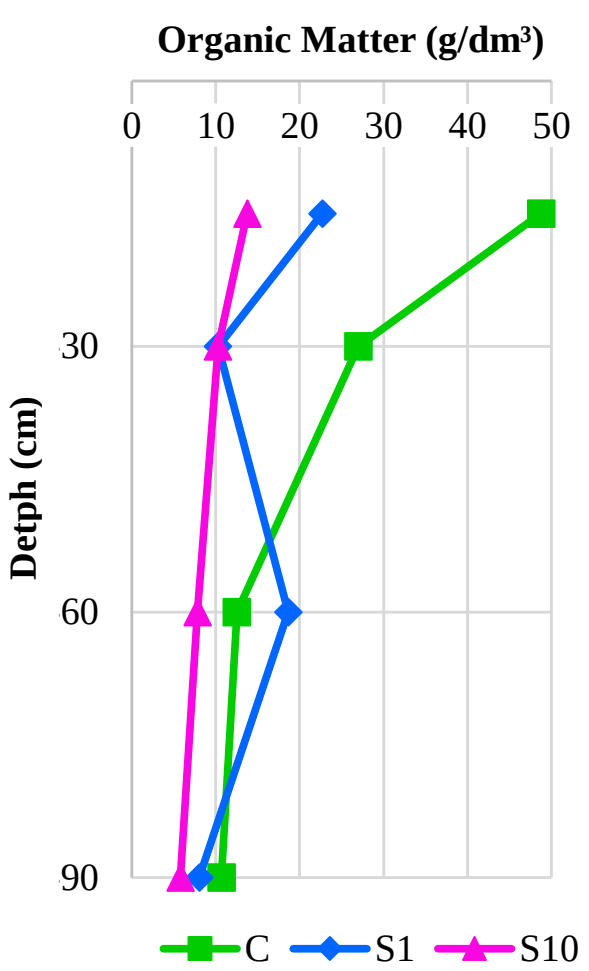


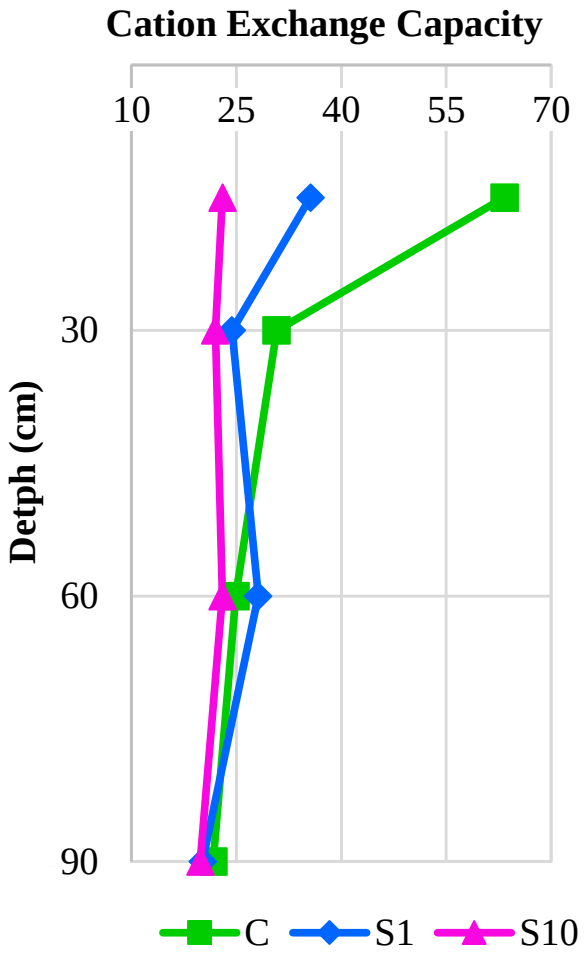
Source: Author.

RESULTS

Soil physical and chemical analysis

- OM: S10 has 355% less than C and 165% less than S1;
- CEC: S10 has 275% less than C and 154% less than S1.





Source: Author.

CONCLUSIONS

- Time interferes on hydrological responses: Increasing soil loss and runoff (volume, intensity and duration);

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- Additionally, time also interferes on soil components: Decreasing organic matter and cation exchange capacity.

Source: Author.

Embrapa
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Questions and suggestions?