

## Do fire retardants affect the recovery of the fine fuel of the herbaceous layer of an open savanna? A case study

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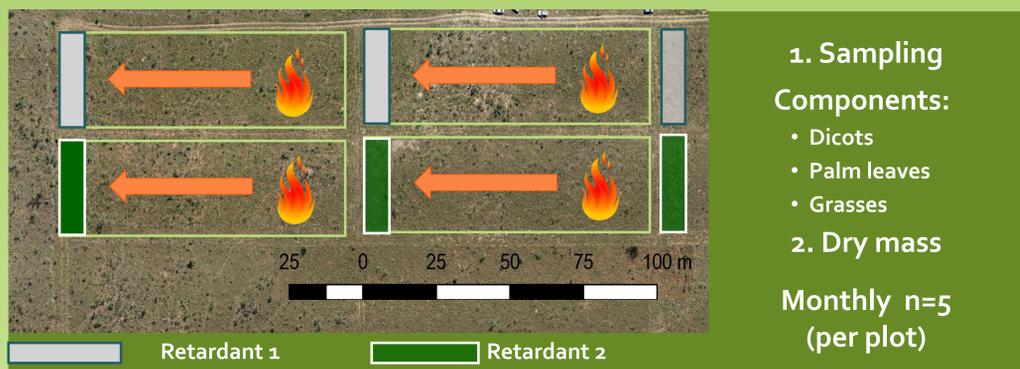
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### Introduction

Forest fires burn large areas and pose a danger to human health, the environment, and the economy. Therefore, efficient fire-fighting techniques are required. Thus, the use of chemical retardants is useful to reduce fire spread.

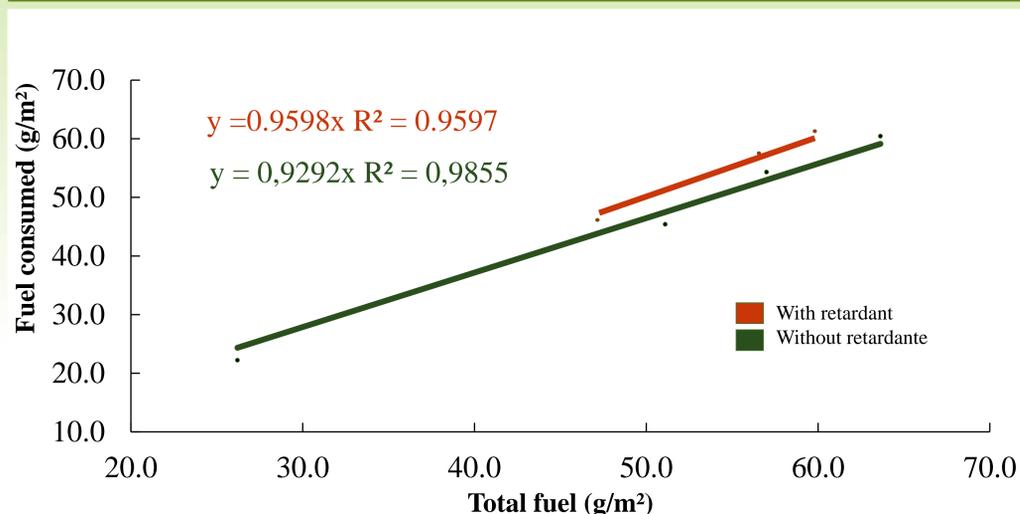
The aim of this work was to investigate the effect of two retardants in the recovery of fine fuel of the herbaceous layer and its burning efficiency.

### Methods

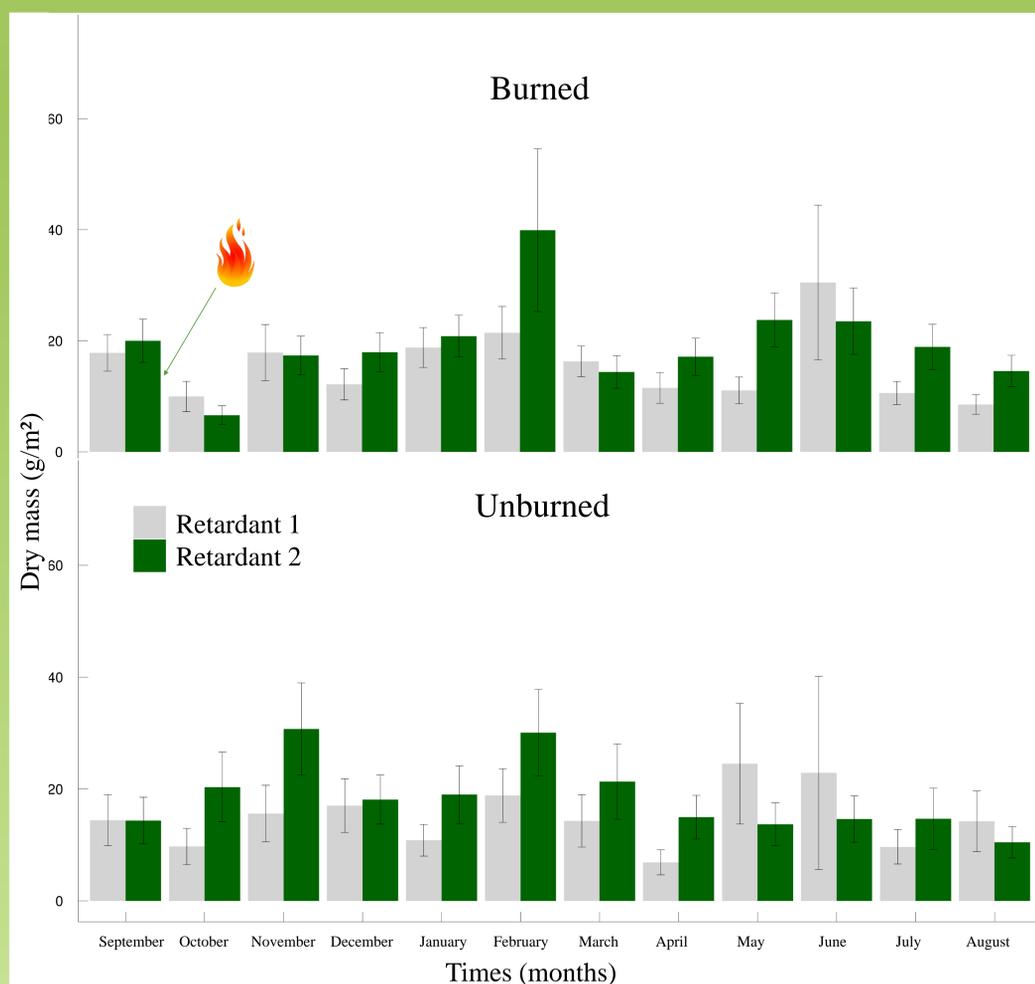


**Figure 1.** Fine fuel sampling methodology: for each retardant, three plots (30 x 10 m) were sampled (two independently burned and a control). The fine fuel components are shown on the right.

### Results



**Figure 2.** Burning efficiency of Cerrado Ralo in the Alpha Area of the Brazilian Navy (DF, 2019) with and without retardant.



**Figure 3.** Retardants effect in the post-fire fine fuel recovery of the herbaceous layer of a Cerrado Ralo at the Brazilian Navy Alpha Area (DF, 2019).

### Conclusion

The retardants increased the fuel consumption efficiency by increasing fire's residence time, which can facilitate the fire fighting. On the other hand, there was no difference in fine fuel dynamics of the herbaceous layer.