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Image created in AgraDEço,  
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*Images of Research Competition*

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# Biochar Bloom

## *Third Prize (2019)*

Brazil is a fusion of powdery sands, mystic jungle, thundering waterfalls, and an exuberant carnival culture, much like the colors and shapes in the image presented here. Our focus is the Atlantic forest, the Mata Atlântica, which home to many species, some of which live nowhere else on this planet. Around 85% of the Mata Atlântica have been deforested and unsustainable land-use techniques, such as the slash-and-burn land management, had a detrimental effect on the fertility of the leftover soil. While providing a short-termed boost with nutrients, this approach leaves the soil depleted shortly after. Following nearly forgotten Amazonian indigenous soil management practices, we joined a project on using biochar, charcoal made of biomass, for cost-effective and sustainable soil amelioration. It was applied in different ways to optimize its beneficial effects on soil stabilization and the growth of perennial crops, such as cassava. The image is made up of leaves of cassava plants on a backdrop of nearly virgin Mata Atlântica. Small-scale plantations in the midst of the Mata Atlântica – an agroforestry approach aiming at protecting the remains of this unique habitat in harmony with sustainable food production on the already deforested land.