Shade for Change: Combatting the Heat Island Effect with Native Plants (Black Walnut and Sycamore)

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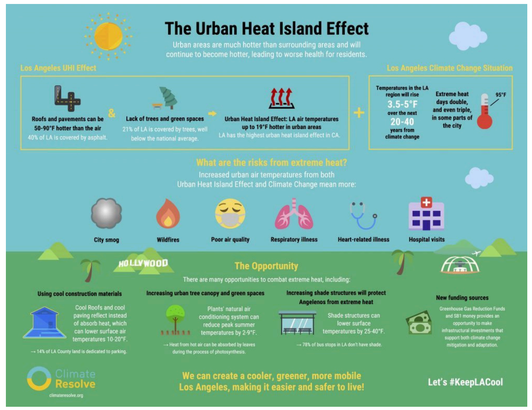
Introduction

Implementing native plant gardens, including black walnut and sycamore trees, along the main campus walkway at Cal State LA will enhance shade coverage, mitigate the heat island effect, and improve overall student well-being.



The main campus walkway serves as a vital path for many, connecting nearly all the buildings on campus and ensuring high foot traffic throughout the day. However, the blazing heat can significantly impact students' well-being and involvement, especially since we are a commuter school. Students often feel so exhausted from the heat that they would rather go home than stay on campus, which can hinder their engagement and academic experience.

Method

- Identify areas along the main walkway where shade is most needed, prioritizing locations that receive high foot traffic and have suitable conditions for planting.
- Develop a detailed planting plan for black walnut and sycamore trees alongside native plant gardens, scheduling planting activities on weekends to minimize disruption for students during the week.
- Partner with Northeast Trees, a local nonprofit specializing in urban greening, to leverage their expertise and organize community planting events.
- Create a team of students, including those with knowledge in environmental science and those simply eager to help. This team will assist in planting and maintenance, providing training sessions and volunteer hours for all participants.

North East Trees

I chose Northeast Trees for their nursery just seven minutes away at Ascot Hills Park, making them a convenient partner for our planting initiatives. This urban greening nonprofit enhances tree canopy and green spaces in underserved Los Angeles communities, prioritizing local parks and native plants. Their community engagement through homegrown crews promotes sustainability and aligns perfectly with our mission to create lasting green spaces.

North East Trees
Bringing Nature Back

Why Native?

- Up to 50% fewer pest problems, reducing pesticide use.
- Deep roots improve water absorption by up to 30%.
- Provide habitat and food for local native wildlife.
- Require 30-50% less water than non-natives.
- Introduce seeds that promote biodiversity to surrounding local areas.
- Require up to 40% less maintenance than non-native species.

Black Walnut

The black walnut tree (Juglans nigra) is an ideal choice for Cal State LA. As a protected species in California, planting black walnuts supports conservation efforts and raises awareness about native plants. These trees produce up to 50 pounds of nuts per year, can be used for natural dye, and play a significant role in erosion control with their deep root systems.

Sycamore

The sycamore tree (Platanus racemosa) is an excellent choice for Cal State LA, providing up to 70% shade to help cool the campus while supporting local wildlife. It plays a crucial role in erosion control, improves air quality by absorbing up to 48 pounds of carbon dioxide annually, and contributes significantly to the overall shading and cooling of the environment.

Expected Results

- Aim for a 30% increase in shaded areas within the first year.
- Target involvement of over 100 students in planting and garden care.
- More student involvement on campus because of the increased shade.
- More events held by Cal State LA n the main walkway.

Conclusion

By implementing these tree canopies on campus, we can significantly enhance shade, reduce heat, and promote environmental stewardship. Partnering with Northeast Trees and engaging students for a project that will be here long after they graduate.