



Original article

Preference for multi-layered, flowering, woody streetscape plantings in a mediterranean-type climate

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ABSTRACT

Urban vegetation provides many social and environmental benefits, yet integrating diverse vegetation into urban areas can be difficult due to spatial and financial constraints. Naturalistic streetscape plantings have gained popularity as a method to improve vegetation diversity without requiring additional land or maintenance costs.

In temperate climates, these plantings are typically meadow-style and informed by research on people's preferences. Yet in mediterranean-type climates, naturalistic plantings reflect shrub-dominated native vegetation, for which public aesthetic preferences are largely unknown. To address this gap we conducted an online survey in Perth, Australia where respondents (n = 985) rated their preferences for 32 computer-generated images of public streetscape, naturalistic, woody plantings that differed in structure (low (<1 m), mid, and upper (>2 m)), flower presence, foliage colour, and visual symmetry. These were compared to an image of low-input lawn, representing a typical local government-maintained streetscape. We also assessed how environmental worldviews, plant knowledge, demographics, and suburb scale tree cover influenced preferences.

Naturalistic woody plantings were liked by 88%, and lawn disliked by 87% of respondents. The most preferred aspects of naturalistic plantings were multiple structural layers, flowers, and both green and grey foliage. Positive preferences for naturalistic plantings and dislike of lawn were stronger from respondents with pro-environmental worldviews, greater plant knowledge, and who resided in suburbs with higher tree cover. Therefore, we recommend naturalistic woody plantings as a publicly acceptable method to improve streetscape quality. Overall, this research provides insights into the nexus between social and ecological values of streetscape plantings for the planning and design of sustainable urban greening in a warming, drying mediterranean-type climate.