

Psychological and physiological benefits to various agricultural recreation landscape types¹

Chih-Ying Yu² Yi-Hsuan Chen³ Chun-Yen Chang⁴ Ying-Hsuan Lin⁵
Wen-Hua Lin⁶ Chi-Cheng Chen⁷ Huei-Fei Hsu⁸

Abstract

People gain physical and psychological relaxation by contacting nature (Ulrich, 1981; Hartig, 1993). In order to realize the benefits of psychological and physiological response to various agricultural recreation landscape types, we select garden, waterscape, and trellis landscapes for agricultural recreation landscape of represent, and use urban landscape for control. We measured participant's psychological responses including attention restoration, preference, ZIPERS emotions, prospect-refuge cognition, and their physiological responses including the electrical activity on their forehead through electromyogram (EMG), electroencephalography (EEG), and their heart rates (HR). The results indicate significant highly evaluations in the attention restoration (being away, fascination, extent, and compatibility) overall agricultural recreation landscapes than urban ones. Participants who view agricultural recreation landscapes demonstrate significant preference evaluations, positive affect, and attentiveness-coping emotions, comparing with urban landscape which brings fear arousal and sadness emotions to people. The results of prospect-refuge cognition indicate significant openness and perspective, comparing with urban landscape. In the part of physiological index, participants who view the garden landscape demonstrate a significant relaxation in low heart rates, high left EEG and who view waterscape demonstrate a significant relaxation in high EMG. This study indicate significant healthfully benefits of psychological and physiological response to various agricultural recreation landscape types. Results of this study can be used as a reference for contacting agricultural recreation environment that will allow people to obtain greater benefits from nature.

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2. Assistant researcher, Lan-Yang Branch Station, Hualien DARES.

3. Contract-based assistant, Lan-Yang Branch Station, Hualien DARES.

4. Professor, Department of horticulture and landscape architecture, National Taiwan University, Taiwan.

5. Postdoctoral research fellow, Department of horticulture and landscape architecture, National Taiwan University, Taiwan.

6. Assistant researcher, Lan-Yang Branch Station, Hualien DARES.

7. Researcher, Lan-Yang Branch Station, Hualien DARES.

8. Former Chief, Lan-Yang Branch Station, Hualien DARES.