Human Issues in Horticulture

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In the first issue of HortTechnology, the term “horticulture” was defined as the science and art of growing fruits, vegetables, flowers, or ornamental plants. It was discussed at length within the context of horticulture as a science and technology, with the tomato serving as a case study, to understand the role of horticulture in crop production (Tigchelaar and Foley, 1991). This issue will look at the other side of horticulture—the art of horticulture, and the role it plays in human well-being.

Going again to the dictionary, we see that “horticulture” is derived from the root words hortus, a garden, and cultura, for which the dictionary refers to the word culture. Under culture we find: cultivation of the soil; the development, improvement or refinement of the mind, emotions, interests, manners, tastes, etc.; the ideas, customs, skills, arts, etc. of a given people in a given period; civilization. In light of research conducted over the last 20 years, primarily through the support of the U.S. Dept. of Agriculture Forest Service, we see that in limiting the definition of horticulture to a combination of “garden” and “cultivation of soil,” we have severely limited the understanding of what horticulture means in terms of human well-being. In effect, we have put blinders on the study and application of horticulture for human life quality.

By this definition, horticulture encompasses PLANTS, including the multitude of...
products (food, medicine, O₂) essential for human survival; and PEOPLE, whose active and passive involvement with the garden brings benefits to them as individuals and to the communities and cultures they comprise.

To understand and justify this broadened definition of horticulture, we must look at the research of individuals from a number of different disciplines—environmental psychology, landscape architecture, social ecology, anthropology, sociology, geography, communications, and forestry, as well as horticulture.

Most of the relevant studies have been conducted to understand peoples’ responses to and need for natural vs. urban or man-made environments. While many people take the terms “nature” or “natural” to imply total lack of interference by man, in most developed countries it is impossible to identify such an environment. Even our wilderness areas have been influenced by forestry activities, man-made fires (or the man-controlled lack of fires), access roads, and physical amenities supplied for recreational pursuits. Researchers reporting on the role of nature or nearby nature in influencing people are most often referring to vegetation, although water and nondomesticated animals may also play a role. The vegetation included in the term “nearby nature” may take the form of a rosebud in a vase, a backyard garden, a street tree planting, a neighborhood park, a planted atrium, or fields and woods (Kaplan, 1992). In discussing the diverse research showing that people overwhelmingly prefer nature scenes to urban and built environments, Zadik (1985) explains: “people seem to respond to environments as natural if the areas are predominantly vegetation and do not contain human artifacts such as roads or buildings.”

The fact that an environment under study is a well-maintained, designed landscape does not seem to alter the application of the term “natural” to the scene.

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Throughout the history and tradition of western civilization the garden has served as a pivotal location for change—the Garden of Eden, the Garden of Gethsemane, the monastic gardens leading into the Renaissance. If, indeed, the garden does play a vital role in the grand scheme of things, then horticulturists, as keepers of the garden, need to try to understand the meaning of the garden to people.

To facilitate a review of current research, I have attempted to divide the information into four categories:

- **Background** theories providing background or theoretical basis for this research and insight into the explanations for a need for nearby nature/horticulture
- **Plants and the individual** research quantifying the impact of nature on the individual with emphasis on psychological well-being and health-related benefits
- **Plants and the community** research on the role of vegetation in determining the effectiveness of communities, including neighborhoods, residential and commercial developments, retirement areas, prisons, schools, businesses, or other settings in which the interaction of groups of individuals determines the quality of their lives
- **Plants and human culture** research to understand the role that plants and gardens have played in the development of our civilization and our humanity

Horticulture is, by its very nature, pragmatic and applied, so every effort will be made...