

Reconnecting Plants to People, Wildlife and the Planet

GWA Conference, August 7, 2017

1. Changing realities of plant connections as we discover more through science. Every connection has changed. Not anecdotal.

Recent History of Green Movements

- 2002 Netherlands: Green City concept adapted – Floriade
- Britain keen to follow but until quantifiable health care savings – slow off the mark
- 2007 Ag Canada and CNLA – commission George Morris report

2. Scientific documentation of plant values for agricultural and horticultural industry 360.

a. Economic: Energy reduction, pollution controls, tourism↑, health care↓
Canada Blooms and recent National Garden Days

b. Environmental:

- Heat mitigation – urban – bees 50°C
- Ameliorates pollution i.e. light, noise, air born toxins
- Waste water
- Attracting wildlife and biodiversity
- Indoor air quality

c. Lifestyle:

- Reduces stress, improves learning and productivity
- Faster recovery in hospital
- Improves health, mind, body, sprit
- Reduces aggression and violence – prisons
- Education – children’s cognitive abilities +20%

3. Industry Ignored

- But flood gate opened. New realities world wide.
- W.H.O. 2007 report. Many countries seeing opportunity to help people, wildlife, and the planet and save dollars

4. Green Industry: Followers

- 80’s, 90’s, 2000’s – Plant sales decline. High density living.
- Boomers ↓. Millennials not engaged
- C. Hall Cultivate - Ohio - New values, relevancy, authenticity

5. Turn Around: I.C.G.A. 10 years ago (worldwide simultaneous effort)
 - a. Food safe, organic, nutrition, Foodies
 - b. Environment concerns – indoors clean - wildlife – pollinators - water

6. High Density Living
 - Sparked need for privacy and green space
 - Small space gardens. Design now critical. Expect More.
 - Connecting plants - senses
 - Well being, happiness, health, wellness
 - Concern for habitat loss

7. Myth Versus Facts and Reality
 - Food / Nutrition – health food in your garden. Burpee
 - Indoor - air cleansing plants boosts happiness (1 per 100 sq. ft.)
 - Lawns – new micro clover – English daisies
 - GWA tradeshow ‘Pearls’ - ultra low maintenance grass

8. Year Round Pollinator Gardens
 - a. 250, 000+ certified of 1 million goal
 - b. City park can provide year round home and needs. Many travel only 200m.
 - c. IPM and no cosmetic pest control
 - d. Engage residents
 - e. Eliminate systemics and neonics
 - f. Criteria for personal gardens

9. Wildlife
 - a. Blue space and green space
 - b. Birds
 - c. Beneficial insects
 - d. Frogs, amphibians, turtles, muskrats, beavers

10. Urban Greenspace

- a. Minimum size – 1 hectare per 1000 people
- b. Proximity
 - 1 – 2-3 hectares – 5 minute walk
 - 1 – 20 hectare - 2 km away
 - 1 – 100 hectare - 5 km away
 - 1 – 500 hectare - 10 km away
- c. Dense tree canopy important
- d. Configuration and connectivity important for best health outcomes
- e. Connecting pathways and benches important for all people, especially seniors
- f. Females, males, seniors, children, cultural diversity – all have differing needs and effects
- g. Natural walking most important - moderate to vigorous - walk in green space
- h. 30 minutes each week - 10% of folks with high blood pressure will be under control

11. Japanese Public Health

- a. Japan – forest walking = forest bathing Shinvin-Yoku
- b. Inhaling aromatic compounds from plants call phytoneides increases natural killer cells , a type of white blood cells that support the immune system
- c. It is linked with lowering the risk of cancer and fighting infections and inflammation
- d. One study – researchers found people who took a long walk in the forest for 2 days in a row increased killer cells by 50% and their activity by 56%. Also remained higher 23% for a month after

12. Rebecca Lovell, University of Exter, U.K.

- a. 90 minute walk outside in green space - revitalized, energized, less tension , anger, depression
- b. In U.K. – saving 2.7 billion per year on health care

13. Matt Browning, Assistant professor, University of Illinois – Applied Science Dept.

- a. Trees provide ROI – 1:10 to 1:100 urban green space

14. Time:

- a. Nora Young. As little as 5 minutes can have a positive impact on overall health
- b. Japan 20 minutes
- c. Finland 5 hours a month

15. Green Spaces Affect

- a. What a Plant Knows – Dr. Daniel Chamovitz
- b. Green Intelligenece - Dr. Stephen
- c. Noise pollution (10 miles wide)
- d. Light pollution
- e. Enhance sleep

16. All Considered Green Space

- Gardens
- Golf Courses
- Parks
- Private Yards

17. Future: Urban Forests. Start 2019. Utrecht, Netherlands. Hawthorn Tower

- a. Will absorb 5.4 tons of CO₂ = to 1 hectare of natural woodland
- b. 30 different species of trees, 360 trees, 10,000 plants
- c. 2020 Forest City, China