

# How Plants affect People

By: Lotus Boyanton

Numerous studies have been conducted that demonstrate the impact of plants on both our physical and mental wellbeing. [According to Psychology Today](#) findings from a study from The Journal of Environmental Horticulture “supports the notion that living in or near green spaces, and spending as much time as possible in both natural settings and cultivated gardens, can improve mood.”

A [2007 study](#), among other findings, indicated that a bacterium in plant soil called *Mycobacterium vaccae* triggered the release of serotonin, alleviating symptoms of depression. The same study found that spending time around plants can increase your memory up to 20 percent, helping you focus on a specific task and that working with soil, pruning, touching and smelling plants are shown to have the same relaxing and stress reducing effects as spending time in a forest.

[Melissa Marselle](#) is a Lecturer in Environmental Psychology at the University of Surrey in England. Marselle specializes in how plants affect the mood of people and how plants can help with mental illness.

Marselle cited 40 years of research about contact with a natural environment proving that it's better for helping people recover from stress and mental tiredness, as well as improving positivity.

A study Marselle conducted looked at the amount of trees and plants residents could see through their windows and how it related to their stress hormone (cortisol). “They found that people with more green views from their homes had less cortisol. This finding is consistent with other studies showing that contact with nature, compared to an urban environment, reduces our cortisol.”

Her research indicates that planting trees in urban environments which are often overpopulated by low income communities could have a significant impact on public health.

“Living near to a green environment (such as having plants and trees near the home) is related to less depression,” said Marselle.” My own research study has shown that living close to a high number of street trees may reduce antidepressant prescriptions. We found that for people with low socio-economic status (the poorest in society, who are most at risk of being prescribed antidepressants), that living near a lot of street trees reduced their risk of being prescribed antidepressants by half (from 8% to 4%)!!”

Contact with natural settings can affect your alpha brain waves which are associated with relaxing.

“ I was part of a research project looking at the specific types and qualities (like biodiversity) of green and blue spaces that impact mental health and wellbeing.” said Marselle. “We found that all types of green (like forest, park) and blue space (like rivers, lakes, oceans) matter. All types of green and blue space can enhance positive emotions and reduce negative emotions.”

Nick Kraemer is a Land Use Planner for Hood River County Oregon. Kraemer talked about the importance of using plants in cities to cool down hot areas with shade, and how plants protect against storm water damage by absorbing water. “Portland is known for using plants in their street designs because of storm water,” he said, “collecting rainwater for swamp plants that absorb the extra water.”

Kraemer further talked about how land is used for public health “Land use planning (and zoning specifically) has its roots in public health,” he said, “It was essentially a response to the trappings of the Industrial Revolution and its impacts on quickly growing urban areas that were dirty, smelly and didn't take overall public health into account.

“Some of the first setback requirements,” he said, referring to requirements relating to the distance a house or structure must be from a property line, “were based on allowing air and light to get to street level and serve basic human needs - although they didn't have data at the time to prove it like we do now.”

Kraemer agreed with Marselle that lower income communities have less access to planting trees than wealthier communities, and that governments need to find ways to pay for trees. Kraemer advocates that this should be a public function. “It is really important that Cities and Counties are finding ways to pay for trees,” he concluded.

Nicole Powell owns [Nicole's Nursery](#) in Dufur, Oregon. She recommends house plants to people who are trying to get into the hobby, or giving a purpose to people who are suffering from depression and anxiety. “I do think plants impact people's moods,” said Powell, “I think we impact plants with *our* moods. I have certain plants that have done really well in my house, I give some of my plants positive talk and there are other plants that I have neglected and they don't do so well.”

Powell explained how plants have impacted her in her life, especially after she had children, “I have been a new mother to two children, my youngest is 16 months old. I had postpartum depression, I definitely noticed a difference in my depression since I started a greenhouse.”

One of her plants she most recommends to people are peace lilies, “Peace lilies have a really positive impact on people. They can grow in any place in your house and they are air purifying plants. Growing plants in water and watching the roots grow is really therapeutic,” she continued, “water itself can be very therapeutic as well.”

“It’s given me purpose,” she continued, “I care about the lives of the plants and their wellbeing, similar to pets. Caring and nurturing for something gives you some kind of internal wellbeing.”