



#PlantsDoThat *Inside!* Where We Learn



GREENING THE GREAT INDOORS

Having plants in our schools is an important component of creating a sustainable classroom ecology and healthy minds and bodies. Indoor plants remove air pollutants and stabilize CO₂, while creating a happier and calmer space for creative and focused learning.

SMARTY PLANTS

Classrooms with plants improve test scores by 10% or more.



HEALTHIER STUDENTS

Plants in the classroom result in fewer sick days.

In fact, Dutch children in classrooms with plants showed a 7% reduction in health problems. Along with better health, they were also more creative and had 20% higher test scores.



A CALMING INFLUENCE

The greener a child's play area, the less severe the symptoms of ADD.

Everyone is just calmer and more relaxed when plants are around.



HAPPY CLASSROOMS

Students and teachers report more positive feelings and satisfaction with plants in classrooms.

Students misbehave less in a classroom containing live plants.



Infographic produced by National Initiative for Consumer Horticulture (NICH). Discover more about the power of plants in this series at ConsumerHort.org.

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AUTHORS

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REFERENCES

Burchett, M., et al. (2010). "Greening the great indoors for human health and wellbeing." Sydney: Plants and Indoor Environmental Quality Group, Centre for Environmental Sustainability (CENS).

Daly, J., Burchett, and Torpy, F. (2010). "Plants in the Classroom Can Improve Student Performance." Accessed from <http://www.wolvertonenvironmental.com/Plants-Classroom.pdf> on 12-11-2017.

Doxey, J. S. and T. M. Waliezek (2009). "The impact of interior plants in university classrooms on student course performance and on student perceptions of the course and instructor." *HortScience*, 44 (384-391).

Duijn, B. van Bergen, S. van Klein Hesselink, J. Kuijt-Evers, L. Jansen, J. Spitters, H. and Kester, M. (2011) "Plant in de klas" (Plants in the Classroom) TNO (Netherlands Organisation for Applied Scientific Research); Fytagoras ; Productschap Tuinbouw.

Faber, A., et. al. (2001) "Coping with ADD: The Surprising Connection to Green Play Settings." *Environment and Behavior* 33 (1): 54-77.

Faber, A., et. al. (2002) "Views of Nature and Self-Discipline: Evidence from Inner City Children." *Journal of Environmental Psychology* 22 (1-2): 49-63.

Fjeld T, (2002). "The effects of plants and artificial daylight on the well-being and health of office workers, school children and health-care personnel." *Proceedings of International Plants for People Symposium*, Floriade, Amsterdam, NL.

Han, K. T. (2008). "Influence of Limitedly Visible Leafy Indoor Plants on the Psychology, Behavior, and Health of Students at a Junior High School in Taiwan." *Environment and Behavior* 41(5): 658-692.

Kaplan, R., & Kaplan, S. (1990) "Restorative experience: the healing power of nearby nature." In: M. Francis & R.T. Hester Jr. (eds). *The Meaning of Gardens: Idea, Place and Action*. MIT Press, Camb. MA, pp 238-243.

Kim, H., et al. (2016). "Evaluation of Self-assessed Ocular Discomfort among Students in Classrooms According to Indoor Plant Intervention." *HortTechnology* 26(4) 386-393.

Lohr, V. I. and C. H. Pearson-Mims (2000). "Physical discomfort may be reduced in the presence of interior plants." *HortTechnology*. 10(1), 53-58.

Shibata, S. and N. Suzuki (2001). "Effects of indoor foliage plants on subjects' recovery from mental fatigue." *North American Journal of Psychology* 3(3): 385.

Shibata, S. and N. Suzuki (2004). "Effects of an indoor plant on creative task performance and mood." *Scandinavian Journal of Psychology* 45(5): 373-381.

CREDITS

Produced by the National Initiative for Consumer Horticulture (NICH).

Thank you to Dr. Charlie Hall, Ellison Endowed Chair in International Floriculture and Professor, and Sara Mellard, graduate student, Texas A&M University for providing the evidence base. Graphic developed by Jennifer Gray, AmericanHort and the Horticultural Research Institute. Committee members: Ken Altman, Altman Plants; Dr. Bridget Behe, Michigan State University; Dr. Natalie Bumgarner, University of Tennessee; Dr. Jill Calabro, AmericanHort; Janet B. Carson, University of Arkansas Cooperative Extension Service; Sylvia Gordon, Landscape by Sylvia Gordon; Danny Gouge; Willoway Nurseries; Dr. Charlie Hall, Texas A&M University; Debbie Hamrick (Committee Chair), NC Farm Bureau Federation; Dr. Marvin Miller, Ball Horticultural Co.; Steve Mostardi, Mostardi Nursery; Patrick Parker, Savatree; Dr. Dawn Thilmany McFadden, Colorado State University, and Penny McBride, Vertical Harvest.

MORE INFORMATION

- National Initiative for Consumer Horticulture, ConsumerHort.org
- Ellison Chair, Texas A&M, www.EllisonChair.TAMU.edu