

## Why gardens are important, especially now

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I would like to talk about why gardens are important, especially now.

To support this position, I will be using evidence from the Chicago Botanic Garden, because that's my part of the globe. But we all face the same set of challenges regardless of where we call home. I will attempt to prove that we can turn the challenges we all face into opportunities to serve.

Forty-five years ago, the founders of the Chicago Botanic Garden transformed a 385-acre flood plain – severely damaged by highway construction, farming, and missile storage – into a spectacular campus on nine islands surrounded by 81 acres of water. Our master plan was inspired by an 18<sup>th</sup>-century Chinese Garden, the Garden of Perfect Brightness.

Our living museum is now home to 2.5 million carefully curated and documented plants across 10,000 taxa. We curate 26 horticultural display gardens, a 100-acre oak woodland, 15-acre prairie, and a robust suite of visitor and community programmes. We invest deeply in plant conservation science and education, and every day, I am motivated by the possibility of realizing our founders' impossible dream to achieve "perfect brightness."

We employ 700 people across 16 states in peak season, and 250 full-time staff in winter. We are fortunate to be supported by over 2,000 volunteers and 50,000 member households.

Clearly, we are a big garden – bigger than most. But that hardly matters. Botanic gardens – regardless of their size – are important. Gardens are especially important now, as people seek places that offer refuge and comfort, education, health and healing, inspiration, sources of food, and jobs and conservation of the environment.

At the Chicago Botanic Garden we are seeing record attendance, support, and recognition. Our attendance this year will most likely top one million people for the first time. This attendance is the culmination of a consistent, steady year-over-year increase of over 45% since 2005. We have seen two record-breaking years for fundraising.

To me, these points of reference serve as evidence of the growing relevance of gardens. It also tells me that the particular focus and efforts of our Garden are working.

However, since I became the CEO of the Chicago Botanic Garden, I have had to spend so much time explaining to influential civic leaders and anyone who will listen, why gardens are important. We suffer from people discounting our work because we do it in "pretty places."

We need to work together – through all of our available alliances – to strengthen and coordinate our message and emphasise the importance of what we do.

Our success in coordinating and broadly communicating the role that gardens play is essential for realising the goals of the Global Strategy for Plant Conservation. Our success is essential to ensure the future of botanic gardens, and also the future of life as we know it on Earth.

I believe that while we all know why gardens are important, or we wouldn't turn up for work every day, we are sometimes too shy or too reticent to say it boldly. A turning point for my own self-confidence in this regard came when we were developing our 10-year strategic plan called "Keep

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Growing". In this process: we wrote out our three core values or belief statements which guide us today: They are:

- We believe that beautiful gardens and natural environments are fundamentally important to the mental and physical well-being of all people
- We believe that people live better, healthier lives when they create, care for, and enjoy gardens, and
- We believe that the future of life on Earth depends on how well we understand, value, and protect plants, other wildlife, and the natural habitats that sustain our world.

We also recently rewrote our mission statement to embody these values. It is:

*We cultivate the Power of Plants to Sustain and Enrich Life.*

The values and mission we have articulated can be applied to each of the gardens – regardless of size, focus, or audience – represented by those of us at this Congress.

Gardens are important, especially now, because our beautiful grounds, our services, and our science address the issues and challenges of our time. Gardens provide comfort and present solutions to people faced with uncertainty in an uncertain time, to people who face the challenges inherent with getting old, and to people of all ages and backgrounds who seek science education, jobs training, healthy food, and safe recreation. Gardens are healers. We discover solutions to mitigate the effects of climate change and offer therapy to people in need. As leaders of botanic gardens, we are turning the world's greatest challenges into great opportunities to serve.

Let me give you 6 examples of the types of challenges that botanic gardens can turn into opportunities.

- Firstly the greatest challenge of our day-to-day lives at the moment is a general uncertainty, anxiety, and the constant onslaught of bad news we hear all around us. It is often paralysing, but, a garden is a place where hope for the future can be rekindled, where the healing power of nature is evident every day, calming the spirit and nurturing the body and mind. A garden is a place where people can go to solve their problems and move forward to action.
- Each season and every programme in a garden offers a respite from the stresses of the world. A garden is a place to enjoy and to share with friends and family – or to experience alone in times of celebration and in times of mourning and sickness.

A garden, through its formal design, and informal programmes brings joy and hopefully some well-needed peace to everyone.

- The second type of contemporary challenge that gardens address is supporting the needs of an ageing population. By 2050, in the United States, 1 in 5 people will be over 65. The fastest growing segment of U.S. society is those over 80 years of age. A garden may also appreciate this challenge as an opportunity to serve.

The Chicago Botanic Garden embraces an older audience by offering: opportunities to volunteer, exercise and educational programs; and entertainment. All our facilities are wheelchair accessible, and we do not charge a per-person admission fee to enter our Garden. So large, often four-generation, often non-English-speaking families can enjoy a day together. We recently counted 37 different languages spoken by visitors on a Sunday morning.

One of my most favourite memories is of a visit to the Chicago Botanic Garden with my then 90-year old grandfather, my mother, and my toddler sons – the younger one rode in my grandfather's lap in his wheelchair. This type of excursion – one that fulfils the different needs of four generations and brings us closer to those we love – happens so easily and enjoyably at a garden.

We also have a new vital relationship with our region's largest healthcare system, which deepens our effectiveness in this area. This healthcare system operates four major hospitals – they now think of the Chicago Botanic Garden as their fifth hospital – a sort of wellness centre or campus.

Our gardens help people live better, healthier, and more satisfying lives.

- A third challenge we all face is making sure that everyone receives a strong education in science, technology, engineering, and maths. But it is a challenge – and again an opportunity – to ensure that strong science education is available to all children. Again, gardens are stepping up to serve.

Gardens provide individuals of all ages and backgrounds with engaging science classes and programmes.

This past year, the School of the Chicago Botanic Garden offered over 1,500 classes, instructing over 120,000 people. As far we know, the Chicago Botanic Garden is the only one internationally that offers formal education programmes from pre-K to Ph.D. In addition, in a very fruitful partnership, Chicago Botanic Garden scientists and educators have worked together to create the first U.S. national climate change curriculum for grades 4-12, funded by NASA; this will be launched early next year. And we are building a strong relationship with educators at the Brookfield Zoo in Chicago to share this curriculum within both the botanic garden and zoo communities.

Our education programmes foster a knowledge and love of nature and an interest in science careers in people from all backgrounds, with a special focus on students from poorer schools and black and Latino students, who have historically been underrepresented in science careers in the United States.

In fact, to meet the demand for the Garden's classes, we are in the process of creating a new 7-acre Learning Campus. At the heart of the Learning Campus is a new Education Centre – which I think of as a community school open from 6:00 a.m.-9:00 p.m. for children and adults alike. Also on the Campus will be a new play garden, made from all natural materials.

Botanic garden leaders understand that a fascination with a brightly coloured blossom has the potential to bloom into a career in plant science, a lifelong commitment to conservation, or a devotion to gardening and growing our own food.

- And speaking of food, a fourth contemporary challenge gardens address is eating well and getting regular exercise. As Chipper Wichman said, addressing poverty and hunger are critical if we are going to achieve our conversation goals (Wichman, unpublished paper). Getting good food and exercise, however, is a challenge for many people.

Gardens, through onsite and community-based agricultural investments, train people in how to grow and cook food, and how to get a job in farming, nutrition, and food distribution.

The Chicago Botanic Garden operates a jobs-training programme called Windy City Harvest, which farms over 6 acres at 8 sites in urban Chicago. We have farms at the County Jail, the City Colleges, public schools, Kraft Foods Corporation, at the stadium of one of our major league baseball teams, and on the 20,000-square-foot roof of Chicago's Convention Center. In 2013, programme participants are on their way to harvesting 80,000 pounds of food, of which 50% is donated to food pantries and social service programmes. Nearly 90% of our programmes' graduates have gone on to employment in food-related fields.

And for wellness, the Garden's main campus has become the most popular (and economical) community and fitness centre in our region. People of all ages and backgrounds visit the Garden to walk, to practice yoga or tai chi, or to take any number of wellness classes, from dawn to past dusk.

- Collectively, our fifth challenge is conserving the environment. Although every primary school curriculum begins with plants, people still don't realise that all life depends on plants. I am always surprised when people look at me with awe and a little doubt when I explain that we rely on plants for our food, clean air and water, medicine, shelter, and clothing.

As you all know, gardens play a role in meeting the environmental challenges of our time; one of our most essential opportunities is to communicate that plants are essential to the entire web of life. At the Chicago Botanic Garden, we use a motto, "Save the Plants, Save the Planet."

Within the Chicago Botanic Garden's 38,000-square-foot Plant Conservation Science Center and at field sites throughout the United States, more than 200 Chicago Botanic Garden scientists, graduate students, and interns discover important knowledge about plants, what changes can result from a loss in plant diversity and healthy habitat, and seek to discover ways to reverse the damage.

Our scientists are known for creating practical land and water management tools and solutions that address environmental challenges, including appropriately managing plant populations and plant and soil communities, especially within human-impacted landscapes. We make a unique contribution to solving present-day ecological problems by integrating systematics, theoretical research, applied solutions, and adaptive management to save individual species – as well as communities of diverse species – at varying geographic scales.

The Chicago Botanic Garden also operates the national Conservation Land Management Intern Program with the Department of Interior, Bureau of Land Management, in 15 western U.S. states. We are engaged with the Seeds of Success and Millennium Seed Bank programmes, the Center for Plant Conservation, and I serve as chair of the Plant Conservation Alliance non-governmental organizations committee. Our Master's and Ph.D. program with Northwestern University trains students who will lead the world in our field; so far the Chicago Botanic Garden program has graduated 35 master's students. Additionally, 23 are currently enrolled, together with 11 students on their way to earning their Ph.D. in Plant Biology and Conservation.

As the planet's population continues to grow to 10 billion people by 2050, we will need to determine the best way to interact with nature and to better serve as the translators of the science that we are conducting in our gardens. It is urgent that we build a unified, compelling message about the importance of plants, and work in partnership with a wide array of governmental and non-governmental international conservation organizations, from land trusts to zoos to gardens, to communicate it.

- Finally, we all face the challenge and responsibility of caring for people who have suffered physical and mental trauma and disability. As a garden leader, I see an opportunity to serve war veterans with post-traumatic stress syndrome or who need practice with a new prosthetic limb. I have witnessed the power of gardens to help children and adults with autism, who are blind, and people who face other physical and emotional challenges.

Gardens deliver healing and generate positive well being to everyone who enters; focused, science-based horticultural therapy programmes build on this inherent strength. Working with plants builds dexterity, relieves stress, fights depression, and increases well being.

The Chicago Botanic Garden leads the field in horticultural therapy; our therapists offer a wide range of services at our main campus, and also teach courses, host symposia, and consult on hospital and school garden planning. Our extensive therapy programmes extend beyond our physical boundaries, serving numerous veterans' centres, schools, hospitals, rehabilitation centres, and on-line providers; for example, we recently launched an online gardening programme for the blind. We are also privileged to work with patients and their families in hospices.

In summary, gardens are a refuge. Gardens are a good value – visitors can return over and over again and Mother Nature always provides something new.

Botanic gardens are a place for a diverse population of people to enjoy with family of all ages, or alone. Gardens bring positive press to our regions and generate funds for our local economies. Botanic gardens' education, community, therapy, and science programmes help assure a better future.

And creating a thriving garden, whether big or small, public or on our window sill, requires us to live what I bundle together into my "gardening ethic". In order to grow, literally or metaphorically, we need to embrace the key tenets of gardening – patience, beautiful design, science, learning from each other, hard work, respect, and faith. We have the opportunity and responsibility to "cultivate the power of plants to sustain and enrich life". As garden leaders we offer important services that address – and can solve in unique ways – the problems and challenges of our time.

Although our ancestors – not too long ago! – understood the critical nature of gardens and plants, the importance of gardens in the minds of many people today is still under recognised.

So, it is our challenge, or, moreover, our opportunity to seize the day in communicating and offering our services.

You are already dedicated to this mission or you wouldn't have come all the way to this Congress. Now I ask you to remember the words that started our week.... "Be messenger birds". Let's all fly home and decide to be an agent of change – a leader, a champion, a translator and to work together.

Because, if we remember that gardens are important to the physical and emotional wellbeing of all people – and to all life on Earth. If we continue to evolve our programs as the needs of our diverse communities change, and if we each, spiritually, physically, philosophically and intellectually, relish the honour we have to lead gardens whose beauty becomes more intense and important with every hour, then we will play an essential role in addressing the world's challenges – for people today – and for those who will rest in the shade of our trees for many years to come.

**References**

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