

Foundation Arboretum Wespelaar Year Report 2016



The wet, even waterlogged condition in the winter, spring and part of summer of 2016 made for difficult planting conditions for woody plants. Still, more than 300 new woody ornamentals enriched our collections in 2016.

The weather obviously has an impact on the visitor numbers but leaving the success year 2015 out of the equation, we observe a steady increase in visitor numbers over the years since 2011, the year Arboretum Wespelaar opened its doors.

Achieving the highest level in the ArbNet Arboretum Accreditation Program in 2016 was a major recognition of the proficiency of the organisation and the never ceasing dedication of the Arboretum Wespelaar staff and many volunteers.

The collections

The **living collections of woody plants** in the Arboretum currently (as of February 15th 2017) contain 4,943 specimens representing 2,252 different taxa (versus 16,130 specimens and 4,898 taxa on the whole of the estate). These numbers include the 377 new accessions on the estate during 2016 of which 125 (or 33.2%) are of documented wild origin. The very wet winter and spring of 2016, with even flooding conditions in some parts of the Arboretum had an important impact on the planting season. Usually we try to plant 400-500 woody plants in the November-March period and this year we had to be content with just over 300 plantings.



Photo 1. The flooding conditions of January 2016 made it at some places impossible to determine where the ponds end and the paths start.

However, the wet spring made for a longer planting season for perennials and we took this opportunity to extend and enrich the plantings on the parking lot and in the *Rhododendron* collection.

Around 98 woody plants were removed from the collection as part of an ongoing effort to improve the public perception, aesthetic value and health of the living collection. However, the waterlogging conditions of

winter, spring and part of summer which were followed by a late heatwave in September made for much more suffering or dying trees and shrubs in autumn than usual. Since the official creation of the Arboretum in 2001 this must have been the most difficult year for the plantings due to these specific climatic conditions.



Photo 2. The wet spring of 2016 made for excellent planting conditions for perennials. Here we are expanding the collection in the *Rhododendron* woodland.

Having a perfectly labelled collection is one of the main objectives of the Arboretum. Since 2014 we have significantly increased our efforts and our team continues this **major inventory round** at the Arboretum and the dendrological collections of the surrounding private estates of *Herkenrode*, the *Potager de Wespelaar* and *Bosveld*. This important and valuable work continued in 2016 and a total of 158 beds (vs. 111 in 2015) have been thoroughly inventoried. During this inventory, each plant in a certain bed is localized, its health status is assessed, the identity is verified if possible and/or needed, and the label is placed on a healthy branch clearly visible for our collaborators and visitors.

A very large percentage of our plants (44.3% in 2016) is obtained through in-house **propagation** by seed or by cuttings. In our ARWESP database a special field is available for each accession where we can indicate that a certain specimen needs to be propagated in that specific year. In 2016 almost 50 accessions have been propagated by cuttings; these are mostly plants that are rare and important for the collection or plants that are in bad shape and that we would hate to lose. We are continuing our focus on small leaved *Rhododendrons* as these are fairly easy to propagate via cuttings and are an important target group for the collection.

The gardening team put extra effort in 2016 in **mulching** as much of the collection as possible. We have excellent experience with mulching around the trees as it avoids the mower getting too near the main trunks, it keeps the soil around the trees moist for a longer period during warm spells and it reduces the growth of weeds. This will of course be an ongoing effort but important progress was made this year.

Databases

All Arboretum collections (woody and perennial plants, herbarium, bonsai collection, wood samples, cones and fruit, books and journals) are kept in a database management system which is updated on a daily basis. It is easy to extract and distribute information from this comprehensive database. The catalogue of woody and perennial plants can be downloaded from the Arboretum Wespelaar website and the woody plants information is at the same time available in an on-line searchable database. In 2016 we started linking photos to the individual

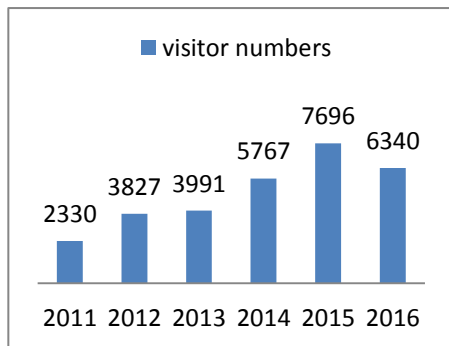
specimens which are now also consultable in the on-line database. This is a laborious project which will continue and expand in the years to come. The woody plant information is also shared – by means of a yearly upload of our data – with two other on-line searchable databases: PLANTCOL for collections in Belgium and the PLANTSEARCH database of Botanic Gardens Conservation International which is a global database of living plants with 1,144 contributing institutions, including thus Arboretum Wespelaar. The PlantSearch database of BGCI gives us the possibility to identify what taxa at the Arboretum are of conservation concern. We currently have 209 (198 in 2015) species which are listed in the IUCN Red List of Threatened Species. One species, *Franklinia alatamaha*, is extinct in the wild; 4 species are critically endangered (e.g. *Torreya taxifolia* or *Magnolia zenii*); 25 species are listed as endangered (e.g. *Fitzroya cupressoides* or *Picea martinezii*); 34 species as vulnerable (e.g. *Davidia involucrata* var. *vilmoriniana* or *Pseudotsuga sinensis*), etc. The full list is available on our website. Moreover, all threatened red list species are also marked in the field with a red tag on the display label and information on these is available at the reception desk.



Photo 3. Seed cones on *Fitzroya cupressoides*, an endangered species.

Visitors

The unfavourable weather conditions during a great part of the operating year and the fact that no autumn weekend was organized in 2016 results in a decrease in number of visitors from 7,696 in 2015 to 6,340 in 2016. However, leaving the success year 2015 out of the equation we can say that the steady increase in visitor numbers continues as is illustrated in the table below.



The number of individual visitors was slightly higher in 2016 (4,170 vs. 4,073 in 2015), also the number of groups was higher (93 vs. 87 in 2015). 240 annual tickets for families were sold and the sale of homemade arboretum honey was extremely successful.

We had, as every year, many visits from **specialized groups**, both national and international, which reflects the importance and impact of Arboretum Wespelaar in the world of woody ornamental plant collections and plant connoisseurs. Amongst those were plant specialists Ian Baldick (*Magnolia*), Susyn Andrews (*Ilex*), Brian Schrire (Legumes), Augustin Coello-Vera (*Acer*), Cedric Pollet (winter shrubs and bark) and Harry Watkins of the University of Sheffield who has embarked on a PhD study entitled “Re-evaluating *Magnolia* as a key genus for 21st Century climate change urban landscapes”; we of

course had many specialist tree breeders and colleagues from other collections on visit. Moreover, specialist groups such as the Gesellschaft Deutsche Arboreta, the International Dendrology Society, the Natuurpunt management team, etc. also found their way to the collections.



Photo 4. Our *Wisteria* collection is still young, but each year more flowers can be admired. Here *Wisteria floribunda* 'Lawrence' and the fountain on the central courtyard.

In this day and age of social media, we must also take into account the **virtual visitor** to the Arboretum. In 2016 our website received 17,944 users (vs. 13,570 in 2015) with as usual a peak in spring and again in the second half of October. Our **Facebook** page currently has 1,278 followers (7 February 2017). During opening season, new pictures from plants of the collection are added once every week or every two weeks, so that followers can see what is flowering or happening at that time. The pictures are grouped by month. Our most liked albums were those of the month of November, April and May (more than 115 likes each). The album "flower arrangements" also had a total of 102 likes. The reach (people looking at the post without necessarily liking it, also includes people that do not follow the

page) of every post is in between 500 and 3,500 persons. A post about students of a flower arrangement course visiting the Arboretum had the biggest reach (3,500 persons).

There are now no less than 29 vegetative **identification keys for selected woody plants** in cultivation in Western Europe, composed by Jan De Langhe, available at our site. Moreover, there are almost 16.000 high-definition images consultable on the website, making this more and more an inexhaustible source of information and beauty. The genera *Acer*, *Ilex*, *Nothofagus* and the Hydrangeaceae family among others received special attention in 2016.



Photo 5. High-definition image of *Ilex brachyphylla* made by Jan De Langhe and available on the Arboretum Wespelaar website.

ArbNet

ArbNet is an online, interactive community of arboreta that supports the common purposes and interests of tree-focused public gardens. Arboretum Wespelaar joined this professional arboretum network through the ArbNet Arboretum Accreditation Program. This program recognizes arboreta at various levels of development, capacity and professionalism. Four levels of accreditation

are in place and it is with pride that we can report that Arboretum Wespelaar received level IV in 2016, the highest level of accreditation. Level IV arboreta employ well-qualified tree scientists engaged in publishing research, manage living tree collections for the purpose of conservation, and take an active role in supporting tree conservation through the Global Trees Campaign. Level IV arboreta are world-renowned tree-focused institutions and so far, only 20 arboreta worldwide have obtained this recognition.

Education

We are often highly commended for our excellent **guided tours**. It is of course important to keep the (botanical) knowledge of our dedicated guides at a high standard and for that reason a class is organized on a monthly basis. Some of the subjects that we studied in 2016 were morphology and anatomy of the stem, plant palaeontology, flower structure and analysis, identification of woody plants using winter characters, bees, beekeeping and the relation to flowering trees. We also continued with an in-depth study of the woody plant specimens per location focussing on identity, nomenclature, morphology, systematics, natural habitat and occurrence, maintenance, background stories, etc. The idea behind this approach is to provide our guides with the necessary background to which they can fall back to if needed or wanted.

On the 21st of May, we organized a lecture by Maurice Foster entitled “Summer flowering *Oyama* Magnolias” for members of the **Belgian Dendrology Society** and invitees. Maurice Foster VMH is a member of the RHS Woody Plant Committee. His private garden ‘White House Farm’ and arboretum in Kent

hold extensive collections of *Rosa*, *Hydrangea*, *Magnolia*, *Wisteria*, *Deutzia* etc. Maurice is a *Magnolia* expert and writes regularly on the subject. This activity was a great success thanks to a sunny day and almost 60 enthusiastic and studious participants.



Photo 6. *Magnolia* 'Jersey Belle' is a hybrid of *M. sinensis* and *M. wilsonii*, both members of the *Oyama* subsection.

Three **students and trainees** have been working in the Arboretum in 2016 and we wish to thank them for their help and assistance and for bringing new ideas and youthful vivacity to the Arboretum. Here again, the nationality of the students reflects the reputation of the Arboretum: one trainee being Belgian, one from Slovenia and one from Cornwall, U.K.

Administration and contact with authorities

The **centre of Wespelaar** village with its buildings, some of which have a historical and/or aesthetical value, was temporarily protected by the Flemish authorities in 2016 in view of a definitive protection in 2017. The impact of this decision is rather small for the Arboretum buildings because all renovation works were recently completed. The impact of this decision on other estate buildings is however important and this dossier will be

followed with much needed attention and detail both by Arboretum staff and family members.

Last year the local authorities started to draw up a so-called **spatial realisation plan** (entitled "RUP Kastelenparklandschap") which will help us with the future management and developments at the Arboretum and the surrounding estates. Some important decisions and steps were made in 2016 and we hope that a definitive version of this official document will be ready in 2017.

Services to third parties

Acquiring, compiling and sharing dendrological knowledge and expertise is one of the main goals in the mission statement of Foundation Arboretum Wespelaar. One of our important partners in achieving this objective is the **Belgian Dendrological Society (BDB)** and following was realized in 2016: the director of the Arboretum is a member of the Board of the BDB and continues as member of the reading committee of the BDB Yearbook, since 2016 he is also publisher of the BDB Yearbook. A successful guided visit to the Geographical Arboretum of Tervuren was organised for BDB members in October. The secretariat of the BDB remains one of our tasks and Arboretum Wespelaar also remains the driving force behind the database of remarkable **Trees of Belgium (BELTREES)**. This database contains now well over 28,500 living measured trees with 1,614 new accessions or updates in 2016. This year we organized for a third time three meetings (region of Flanders, Wallonia and Brussels) with several of the most important contributors to the database in order to encourage and increase the number of yearly measurements.

Another database which is managed and maintained by the Arboretum Wespelaar team is that of the dendrological collections of the private estate **Hemelrijk** in Essen, the property of the De Belder family. In 2014 we have started with a new inventory round of the Hemelrijk collection of woody plants in order to have the main trees and shrubs, if possible, accessed in the database and labelled in the field. This effort will continue in the years to come and we feel privileged to help keep this most important and valuable collection up-to-date and well labelled for the future generations.

The Director of the Arboretum continues his function of secretary of the **Belgian Association of Botanical Gardens and Arboreta** (V.B.T.A.) and of the scientific committee of Foundation Franklinia. He is also active in and responsible for the follow-up of the projects sponsored by the Arboretum. The Director is a member of HORTAX, the Cultivated Plant Taxonomy Group, and was member of the scientific committee responsible for the organisation of the

Magnoliaceae Symposium held in Cuba in December 2016.

The Director also spent a couple of days at the Cherry Tree Arboretum in Shropshire, U.K. The aim of that visit was to evaluate the current plantings at the arboretum for taxa diversity and speciality, landscape aesthetics and maintenance levels in different parts of the collection. This assessment resulted in detailed advice and suggestions on how to proceed with all these aspects of the collection and what/where urgent choices or options need to be made. This advisory report will be used to help secure the future of the Cherry Tree Arboretum.

It is crucial that the Arboretum keeps good and solid contacts with the **local community**. It is therefore with pleasure that we continue to advice the local authority on the management, reconstruction, labelling and plantings of the public park in Haacht, the Church Council in Haacht, the CPAS of Haacht, the golf course in Keerbergen, public parks in Leuven, etc.

