

Foundation Arboretum Wespelaar Year Report 2021



Corona, and the accompanying lockdowns, have made us realise again the importance of nature, open space, plants and biodiversity. Arboretum Wespelaar has also experienced this trend and the number of visitors has risen significantly this year. We are delighted with this positive effect and we hope that this renewed insight will last.

In 2021 nature was kind to us. After several dry years we finally had a spring and summer with sufficient rainfall. One could see the plants in the collection reviving; Rhododendron, Hydrangea and Stewartia in particular took full advantage of this wet summer.

Our site in Marche-en-Famenne went through significant changes, mainly with regard to the buildings. We now look forward to the end of the construction works in 2022 and the opening of this beautiful place in 2023.

THE COLLECTIONS

The **living collection of woody plants** in the Arboretum currently (as of 14 December 2021) contains 5,409 specimens representing 2,337 different taxa (versus 17,403 specimens and 5,005 taxa on the whole of the estate). These numbers include the 579 new accessions on the estate during 2021 of which 189 (or almost 1/3rd) are of documented wild origin.

Around 50 **woody plants were removed** from the collection as part of an ongoing effort to improve the aesthetic value and health of the living collection. This is more than in previous years. This is partly coincidental, but in 2021 we also took a closer look at the young tree collection of the Vijverbos. After the felling of the poplar trees, we started expanding the dendrological collection there in 2007. 15 years later, a thorough evaluation was needed and we have removed several uninteresting or unsuitable plants. Some typical examples are *Aesculus x neglecta* (dead wood, bad habit, fragile, canker, many ugly wounds), *Populus tremula* 'Gigas' (on a real prime spot where we finally decided not to place a tree but to keep an open space - always important in an arboretum!), *Quercus cerris* 'Athena' (turned out not to be the correct cultivar but just *Q. cerris* rootstock), *Chionanthus retusus* (a group of three was reduced to a single individual, the best of the three was kept, both in terms of habit and positioning).

2021 started with an **early opening**: on February 10th there was enough snow and the temperature was cold enough to exceptionally open the doors for our ticket-holders. This was much appreciated and we counted 243 visitors in one day who undoubtedly took a multitude of beautiful snowy pictures. At the same time,

it was one of the most beautiful years for our *Hamamelis* collection. But February was also a capricious month: four times in a row, daily records were broken, with 18.8°C in Uccle (near Brussels) on 25 February, which was also the warmest 25 February ever since temperature measurements began in Belgium.



Photo 1. A snowy landscape in February provided a one-off early opening of the arboretum for our members.

Winter is also the month in which major works take place, including this year the **thinning of the Corsican pine wood** in Verlatbos. This thinning is important and needed to bring extra light towards the undergrowth where the collection of botanical species of *Rhododendron* is located and it also gives the pines the opportunity to grow further and more sturdy. However, due to the very intensive planting, this is an extremely delicate job as no plant may be damaged. It is therefore a specialised and experienced arborist who helps us with this work. We also took the opportunity to prune and shape the young pine plantations in the Vijverbos.

The warm spring meant that we, like last year, opened our doors a week early, on 28 March. The early magnolias were slightly frozen but the members of the former *Buergeria* section (*Magnolia stellata*, *M. kobus*, *M. salicifolia* and their hybrids) were spectacular as usual. Of particular note was the eye-catching flowering on ***Magnolia sinostellata***. This "Chinese stellata" is extremely rare in nature (known

from only three locations in southern Zhejiang province in China) and is therefore catalogued as "endangered" in the IUCN Red List (2015). It is planned to develop a propagation programme for this species in 2022 together with the RBG Kew with the aim of increasing the distribution of this rarity in collections in the UK and Europe and thus contributing to the *ex situ* conservation of this species.



Photo 2. Close-up of the very rare and endangered *Magnolia sinostellata*, the "Chinese stellata".

This year too, spring came to a sudden halt with freezing temperatures down to -4°C on 13 April. A mild winter, early spring and late, devastating spring frost seems to become more and more a constant. Winter starting in April is becoming a very unpleasant trend. The remainder of the spring can be summarised in two words: cold and wet. This slowed down the growth and flowering of the plants, but above all it was excellent weather for our new and young plantings! Finally, after several excessively dry springs in recent years, in 2021 everything was lush green. And the flowering of many of our specialities such as *Cornus*, *Stewartia* and *Rhododendron* was really outstanding!

The summer remained wet with a real catastrophe in Belgium between 13 and 15 July with unprecedented flooding mainly in the east of the country. In Jalhay (province of Liège) 271.5 litres of rain fell in 48 hours! Wespelaar

was relatively spared but we had 50 litres in one day and a total of 132 litres in the month of July, breaking a record set 40 years ago. The wet summer was also an incredibly green summer. It is probably the first time that we did not have to water a single plant during the summer! On the other hand, the number of oak (*Quercus robur*) seedlings was really dramatic and also in 2022 we will have to fight against this invasion of seedlings. It probably doesn't need to be said that this was the best year ever for our *Hydrangea* collection.

Meanwhile, the groundwork around the new Artois pavilion was completed. Grass has been sown and a number of rare and special plants were planted in the beds bordering the pavilion. Worth mentioning are a wild collected *Schefflera gracilis* from Vietnam, two wild collected *Cercis glabra* from Shaanxi, some *Tetrapanax papyrifer* and the beautiful *Distylium* 'Blue Cascade'.

The last months of 2021 were grey but fortunately coloured by the exceptionally beautiful *Carpinus betulus* 'Rockhampton Red', a selection of our native Hornbeam that turns warm orange to even fiery red in autumn and retains its leaves for a very long time during winter. Highly recommended.



Photo 3. *Carpinus betulus* 'Rockhampton Red', a selection of our native Hornbeam that turns warm orange to even fiery red in autumn.

Plant pests and pathogens present a significant risk to global plant health and this threat is ever rising. Sentinel plants within botanic gardens and arboreta can play a vital role in providing information on future and/or known threats. The fungal pathogen *Sirococcus tsugae* – which was one of the test cases of the **Belgian Plant Sentinel Network (BePSN)** – is still a matter of concern. This summer SOPHIE SCHMITZ of the Walloon Centre of agronomical research came to take some samples of *Cedrus* and *Tsuga* species in our collection in the framework of a new project (HARMSTAT - Phytosanitary status of harmful organisms for plants and plant products). Luckily nothing suspicious was noticed, but follow-up is needed. We also checked our specimens of the genera *Chionanthus* and *Phillyrea* for possible occurrence of Ash Dieback (*Hymenoscyphus fraxineus*) or Emerald Ash Borer (*Agrilus plannipennis*) as part of the International Plant Sentinel Network (IPSN). These pests are a serious threat to global ash populations and the increased risk of spread through non-*Fraxinus* hosts is extremely concerning. Luckily, our survey revealed no such threats but here also, follow-up will be important.

Having a perfectly labelled and correctly identified 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 *Park of Wespelaar*, the *Potager de Wespelaar* and *Bosveld*. This important and valuable work continued in 2021 and a total of 199 beds have been thoroughly inventoried. During this inventory, each plant is localised within a certain bed, its health status is assessed, the identity is verified if possible and/or as needed, and the label is placed on a healthy branch clearly visible for

our collaborators and visitors. The perennials are also inventoried per bed, but usually this is done in two stages: once in (early) spring in order not to miss the bulbs and spring flowers and a second time in the summer period when many perennials and grasses are at their peak (18 flowerbeds were inventoried in 2021).



Photo 4. *Chionanthus virginicus* 'Groenendaal' was registered as a new cultivar in 2021.

This year a new cultivar was registered: ***Chionanthus virginicus* 'Groenendaal'**. It is hard to understand why some plants do not (or with difficulty) find their way into the nursery trade, and the American fringe tree is one of them. Bean (TSO) rightly says "this is one of the most beautiful and striking of N. American shrubs, and is perfectly hardy". This new selection is particularly interesting because of its perfect broad rounded habit, and extremely abundant yet delicate white flowers covering the shrub in May. The mother plant that grows at Herkenrode is a superior seedling raised by Philippe de Spoelberch from a plant growing in the Groenendaal Arboretum (Hoeilaart, Belgium), hence the cultivar name.

VISITORS

The chart on the right, which gives an overview of visitor numbers since the opening of the Arboretum to the public in 2011, speaks volumes: the increase in visitor numbers in 2021 is spectacular and, of course, excellent news. It should be noted, however, that the figure for 2020 is probably an underestimate due to corona. Last year, we were confronted with several weeks of complete lockdown and thus compulsory closing of the premises, we had almost no groups and for part of the time we were open using an honesty box, which made it difficult to keep track of the correct visitor numbers. Nevertheless, it is clear that in 2020 many people discovered the arboretum for the first time and decided to visit it again in 2021. The need for relaxing in green, peaceful, and beautiful surroundings which got a boost due to the pandemic seems to be here to stay and Arboretum Wespelaar is profiting from this new trend.



Photo 5. After the unnatural corona silence, we finally had groups visiting again.

The number of individual visitors amounts to 10,417 (vs. 7,072 in 2020) while the number of groups totals at 62 (vs. 21 in 2020). The number of group visits remains below pre-Corona level. In 2021 there were still important restrictions

on group activities (school trips in particular), especially in spring, which is one of the busiest periods for the arboretum. Nevertheless, the increase compared to last year is significant and we assume that guided visits will be back to normal in 2022. We are very pleased with the impressive increase in the number of family tickets sold: 621 versus 392 in 2020!



The visit of **specialised groups** in 2021 was certainly not yet on the same level as before the corona crisis, but nevertheless some can be mentioned. Dr. Robert Gliniars, curator of the Hohenheimer Gärten in Germany and his colleague Frank Kilian visited Wespelaar for a couple of days. Also some colleagues from the USA made the crossing and stayed several days in Wespelaar: Scott McMahan (Atlanta BG), Peter Zale & Tony Aiello (Longwood Gardens). Some specialists/breeders came to visit the collection in Wespelaar: Guy Henderieckx (G.C. Stolwijk & Co., the Netherlands), Peter Vanlaerhoven (Lowgarden Nurseries, the Netherlands), Aurélie & Maxime Van De Sande (Pépinière Vert'Tige, France), i.a. On 28 August Natuurpunt organised a bat excursion on the estate which attracted many people.

In 2021 our **website** had 29.706 users (vs. 22.085 in 2020) and 114.071 pageviews (vs. 96.854 in 2020) with a clear peak in April. Since 2019 we have an extra feature on our website: the virtual tour. At first this feature was only available in Dutch and French, but in 2021 the English version was finished. This interactive site divides the Arboretum into nine zones that can each be visited separately and where background information and botanical eye-catchers are presented. There is also, again via an interactive map, a specific link to all our own selections and to species that appear on the IUCN Red List.

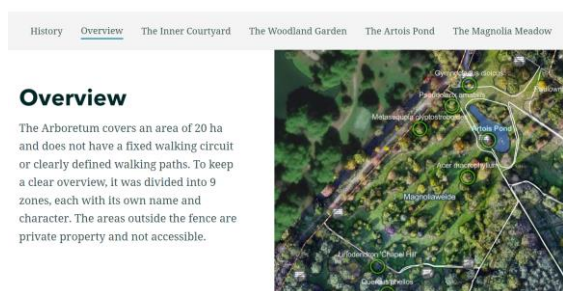


Photo 6. The English version of the virtual tour is now online.

Our **Facebook** page currently has 2.988 followers (2.734 at the time of the last report in 2020). 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 top three of most liked albums were the Album “October” (590 likes), “March” (514 likes) and “February” (481 likes because of the many snow pictures). The most liked post (apart from the albums above or the more practical posts concerning opening), was an aerial photograph of the Magnolia Meadow taken with our drone (125 likes). A video of *Magnolia* 'Caerhaeys Belle' received 122 likes and photographs of the construction of the

Artois Pavilion were also popular. The album “April” had the biggest reach with 9.239 persons.

Our **Instagram** page currently has 1.747 followers (versus 1.424 in 2020). Every post gets in between 80 and 299 likes. *Magnolia* posts are generally the most popular. This was also the case in 2021: the most liked post was a series of drone photographs (299 likes) and a drone video (385 views) of the Magnolia Meadow in April. Like on Facebook, a video of *Magnolia* 'Caerhaeys Belle' also had many views (449 views). New posts are added once every week or every two weeks, containing a selection of photographs of plants flowering at that time. The scientific plant name is always mentioned, which is much appreciated by the followers.



Photo 7. A series of drone photographs of the *Magnolia* meadow were a big hit on our social media.

In April 2020, we started a **YouTube** channel. This was especially useful during the lockdown of 2020, when we wanted our visitors to be able to enjoy the flowering Magnolias and Rhododendrons at the Arboretum. We currently do not post much on YouTube and focus more on Facebook and Instagram so our number of followers has not risen much: 45 followers (versus 36 in 2021). We have 2.458 views in total of all our videos (versus 1.334 in 2021).

Although we try to stay away from the mass media, we did allow a TV documentary about the arboretum for the RTBF (*Belgian Radio-television of the French Community*) programme 'Jardins & Loisirs' in the autumn of 2021. The autumn colouring of the trees and shrubs combined with a blue sky is a most rewarding subject for a broadcast. Several genera that are known for their excellent colouring were highlighted, in particular the genus *Nyssa*.



Photo 8. *Cotoneaster rhytidophyllus*. More than 43,000 high-definition images (5,036 taxa) are consultable on the Arboretum website.

There are now no less than 42 vegetative **identification keys** for selected woody plant genera and species in cultivation in Western Europe, composed by Jan De Langhe, available on our website. Moreover, there are more than 43,000 high-definition images (5,036 taxa) consultable on the website, making this more and more an inexhaustible source of information and beauty. The genera *Cotoneaster*, *Daphne*, *Rhododendron*, *Rubus*, *Salix*, *Tilia* and the families Anacardiaceae, Lardizabalaceae, Rhamnaceae as well as Gymnosperms received special attention in 2021.

DATABASES

All our collections (woody and perennial plants, propagation, herbarium, bonsai collection, wood samples, cones and fruit, books, journals and reprints) 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 can be consulted in the on-line database. The past six years more than 9,200 pictures were linked. This is an important project which will continue and expand in the years to come.



Photo 9. *Acer pentaphyllum*. Critically endangered in the wild but growing well at Arboretum Wespelaar.

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 (not in 2019-2021 because of the retirement of the responsible person at Meise Botanic Garden) and the PLANTSEARCH database of Botanic Gardens Conservation International (BGCI) which is a global database of living plants with 1,194 contributing institutions. PlantSearch

then provides us with a list of **taxa that are included in the IUCN Red List**. We also use the most recently published Red Lists that we receive via BGCI to actualize our list. The update in 2021 resulted in an extra taxon (*Fraxinus pennsylvanica*) in the category 'critically endangered' (17 species with this status in the collection now). On the neighbouring property we sadly lost our one and only *Castanea dentata* (critically endangered) as well as the only *Salix magnifica* (vulnerable). We have cut our *Pinus radiata* specimen (endangered) because it was not correctly identified. We have one extra taxon (*Rhododendron myrtifolium*) with the status 'endangered' (now 41 species in this category in the collection). We remained status quo for taxa with the status 'vulnerable' (94 taxa). We added *Juglans californica* to the collection and re-entered *Rhododendron forrestii* subsp. *papillatum* but we lost *Rhododendron laudandum* var. *temoense* and *R. barbatum* f. *imberbe*. Arboretum Wespelaar is the only *ex situ* collection with specimens of *Ilex brachyphylla*, *Quercus hintoniorum* and *Carpinus faginea* according to BGCI Plant Search. There is only one other collection according to BGCI Plant Search that holds *Magnolia decidua* and *Magnolia sinostellata*. *Franklinia alatamaha* remains a very special plant for us because it is extinct in the wild, but nevertheless several specimens grow in Wespelaar and we hope to further expand our collection of *Franklinia* with seedlings in 2022.

Our **library** has a steady growth of items and we now have 3,491 accessions, mostly books (2,664) but also journals, maps, reprints, cd's, and DVD's.

EDUCATION

We are often highly recommended for our **guided tours**. It is of course important to keep the botanical and horticultural 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 2021 were Gymnosperms, spring and autumn in the private garden of Herkenrode, plant anatomy, and new plantings from the 2021 season. One course was cancelled due to the COVID-19 situation and some were offered on-line. We also restarted with the in-depth study of the woody plant specimens per location, i.e. plantings around the Artois pavilion, around the Artois pond, and some beds in the Wernerwood.



Photo 10. Seed cone of the endangered *Picea martinezii*. Conifers were the subject of a study day at the Arboretum and of a course for our guides.

One of the more effective ways to **share dendrological expertise and horticultural practice** is the organisation of talks and study days. Needless to say that 2021 remained a poor year in that area. Nevertheless, we were able to organise two notable activities. On 21 October, we organised a workshop on conifers for the staff of the Flanders Heritage Agency. This workshop consisted of lectures (speakers were Philippe de Spoelberch – Conifers in

Belgian Collections, Roger Deneef - Tree fashions in Flemish Brabant parks, and Koen Camelbeke – Taxonomy of the Gymnosperms) as well as identification exercises and a tour of the arboretum with specific attention to conifers. On 15 November Dr Peter Zale (Associate Director of Longwood Gardens, PA, U.S.A.) gave an interesting and well-attended talk entitled "The Research and Conservation programme at Longwood".

Fourteen **students and three trainees** worked in the Arboretum in 2021 and we wish to thank them for their help and assistance and for bringing new ideas and youthful vivacity to the Arboretum.

INTERNATIONAL COLLABORATION

We are frequently consulted by scientific institutions or botanical collections with regards to the plants we are growing. After evaluation of the request, we share information, observations, seeds, leaf material or cuttings for scientific research.

A total of ten such international collaborations were set up in 2021 focusing on different plant groups such as *Aesculus*, *Betula*, *Cedrus*, *Chionanthus*, *Fraxinus*, *Ilex*, *Magnolia*, *Nothofagus*, *Phillyrea*, *Rhododendron* subg. *Pentanthera*, *Stewartia* and *Tsuga*. It concerns research in China, Germany, Ukraine, the UK and the USA. The subjects of research are very diverse and include horticulture, propagation techniques, molecular biology and phylogeny, conservation of threatened tree species and surveys for pests and diseases. The full list with detailed information is available upon request.

Arboretum Wespelaar remains an active member of The **Maple Society Species Working Group**. Following documents are now available on the Maple Society website: list of accepted species names, list of synonyms, list of hybrid names, and a proposed classification of the genus *Acer*. We also shared the high-definition scans and vegetative identification key with the Maple Society and these are now consultable on their website as well.



Photo 11. Arboretum Wespelaar is active in several of the BGCI Global Conservation Consortia.

To accelerate effective conservation of global plant diversity, BGCI is coordinating a suite of **Global Conservation Consortia**, which catalyse groups of institutions and experts to collaboratively develop and implement comprehensive strategies to prevent extinction of priority threatened plant groups. Primary objectives include coordinated in situ and ex situ conservation efforts and dissemination of species recovery knowledge. Eight such consortia have already been established and Arboretum Wespelaar has expressed a genuine interest to take an active role in three of them, namely those of the genera *Acer*, *Magnolia* and *Rhododendron*. For the other consortia, we also made our contribution by providing specific data on the plants in our collection, more specifically on the genera *Quercus* and *Nothofagus*. In addition, we are active in the cryopreservation working group, especially for the genus *Magnolia*.

ADMINISTRATION AND CONTACT WITH AUTHORITIES

In 2015 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. This official document has been adopted and approved by all stakeholders and administrations in January 2018. A direct consequence of this decision is that we have received permission for construction of the **Artois Pavilion**, which is inspired by the old Pavilion, along the canal, which would welcome visitors to the estate travelling by barge from the city of Leuven to the Park of Wespelaar. Construction of the pavilion started in March 2019 and was finished in 2020. It has become a beautiful building; a nice focal point from different perspectives with an important link to the Park of Wespelaar and the Artois family. The turf and plantations around the pavilion were all finished this year. A first exhibition on the history of the arboretum using large black and white photographs is planned for 2022.



Photo 12. The Artois Pavilion in full glory.

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 recurring beneficiaries is the **Belgian Dendrological Society** (BDB): the director of the Arboretum is a member of the Board of directors of the society and of the editorial committee of the society’s Yearbook; since 2016 he is also publisher of the BDB Yearbook. We organised a successful and well-attended dendrological excursion to some parks in Jette and Laeken (Brussels) for the BDB members. A member of the team provides for the secretariat of the BDB and Arboretum Wespelaar also remains the driving force behind the database of remarkable **Trees of Belgium** (BELTREES). This database contains today some 33,600 living measured trees with 2,594 new accessions or updates in 2021. This year we again organized two on-line meetings (region of Flanders, and Wallonia plus Brussels) with several of the most important contributors to the database in order to encourage and increase the number of yearly measurements. In 2017 we also started linking available photos to the BELTREES accessions. In the past four years, 6,699 photos were linked and uploaded. These photos are consultable on the Arboretum Wespelaar website.

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 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.). In 2021 V.B.T.A. became active in the DiSSCo consortium – Belgium. The goal of DiSSCo Belgium is to apply best practice management in conservation of both physical and digital collections in order to increase their visibility and usage. DiSSCo Belgium aims to mobilise further the collection holding institutions in Belgium and to have a complete inventory of Natural Heritage Collections. An important result of this project is that several gardens are now looking for a database management system specifically for botanical living collections. Ideally, as many gardens as possible would work with the same IT system in order to enhance and facilitate exchange and efficiency. Currently, different database systems are in use by different gardens (e.g. BG-Base, Iris-BG, MS Access, etc.).

The Director of the Arboretum is Chairman of the expert committee of **Fondation Franklinia**. He is also active in and responsible for the follow-up of the projects sponsored by Arboretum Wespelaar, mostly in the field of nature conservation.

The Director is a member of the **Magnolia Society International** (MSI) Board of Directors and he chairs the Research Committee of that organisation. In 2021 MSI published the Register of *Magnolia* Cultivars (Matt Lobdell, HortScience 56(12)). This Register is the result of years of effort by many MSI member

volunteers, several working at Arboretum Wespelaar!

It is crucial that the Arboretum keeps good and solid contacts with the **local community**. It is therefore with pleasure that we continue to advise the local authority on the management, reconstruction, labelling and plantings of the public park in Haacht, the CPAS of Haacht, or individual trees on the grounds of the municipality. We are also active in the “Forestry Group Wespelaar” and offer advice for cutting, thinning and planting of new woodland.

Arboretum Wespelaar staff was actively involved (advice, pictures, proofreading) in the new book of Professor emeritus Martin Hermy (KU Leuven) entitled 'The right tree for your garden' ('De juiste boom voor elke tuin' in Dutch). Hermy translates scientific knowledge into practical tips and bite-sized information. There is little room for planting new forests in Flanders, but there is room for millions of trees in gardens. The many figures, tables and photos and the extensive index make this book a true standard work for both the tree lover and the passionate gardener. This book is now in its third edition and a "light" version entitled 'Trees for Gardens' ('Bomen voor Tuinen') is planned to be published in 2022. For this version too, intensive use was made of Wespelaar's expertise.

ARBORETUM DE MARCHE-EN-FAMENNE



Photo 13. The new plants for the Arboretum de Marche-en-Famenne have arrived!

In 2018 we were able to purchase an interesting property on some 78 ha in Aye near Marche-en-Famenne. Some 15-20 ha will be developed into an arboretum, while the rest will retain its natural appearance: woodlands, flowering meadows, amphibian pools, marshlands and so on. It goes without saying that this will be a long-term project, especially the arboretum part will need time to grow into a mature entity. In 2021 the following was realised:

- The Arboretum Wespelaar team has been on site several times to carry out groundworks and plantings. 58 trees were planted but most of the time and energy was spent on planting the future car park with a wide range of interesting trees and shrubs. Inventory and labelling of the new plants is foreseen for the spring of 2022.
- Together with the main contractor, a large amount of levelling and landscaping work was carried out around the buildings, the car park and in the main vista. This main axis is now completely free and the view

from the future cafeteria terrace is stunning.



Photo 14. View from the rooftop of the visitor centre with evidence of the ground and levelling works in the foreground.

- Both buildings, the visitor centre and the technical building, will be integrated into the existing landscape. A good way to facilitate this integration is by means of a planted green rooftop. The technical building is now completely finished and the plantations on the green roof were realized in 2021. The planting on the rooftop of the main building is planned for the autumn of 2022.
- Around 100m² of solar panels were installed near the car park. Geothermal energy was installed to heat both buildings. We hope to be able to operate fairly independently in terms of energy, heating and ventilation thanks to these sustainable technologies and to set an example for other projects in the region.
- The surroundings of the technical building are as good as finished: a greenhouse, raised beds for seedlings and young plants, a future nursery, parking, roads, etc.



Photo 15. View towards the future car park (May 2021).



Photo 16. First testing of the Brielmaier cutter bar.

- For the visitor centre, we are gradually approaching the final phase of construction work. Special attention is being paid to the layout of the publicly accessible areas (reception, cafeteria, lecture room): we are looking for a balance between functionality, aesthetics, quality and comfort. The target date for completion of the construction work is September 2022 with an inauguration in spring 2023.
- Since the technical area/shed is completely finished and we have a site manager living on site, we were also able to invest in some major purchases: a tractor with front loader and large trailer, a chipper, a Brielmaier cutter bar with flail mower and a work vehicle.