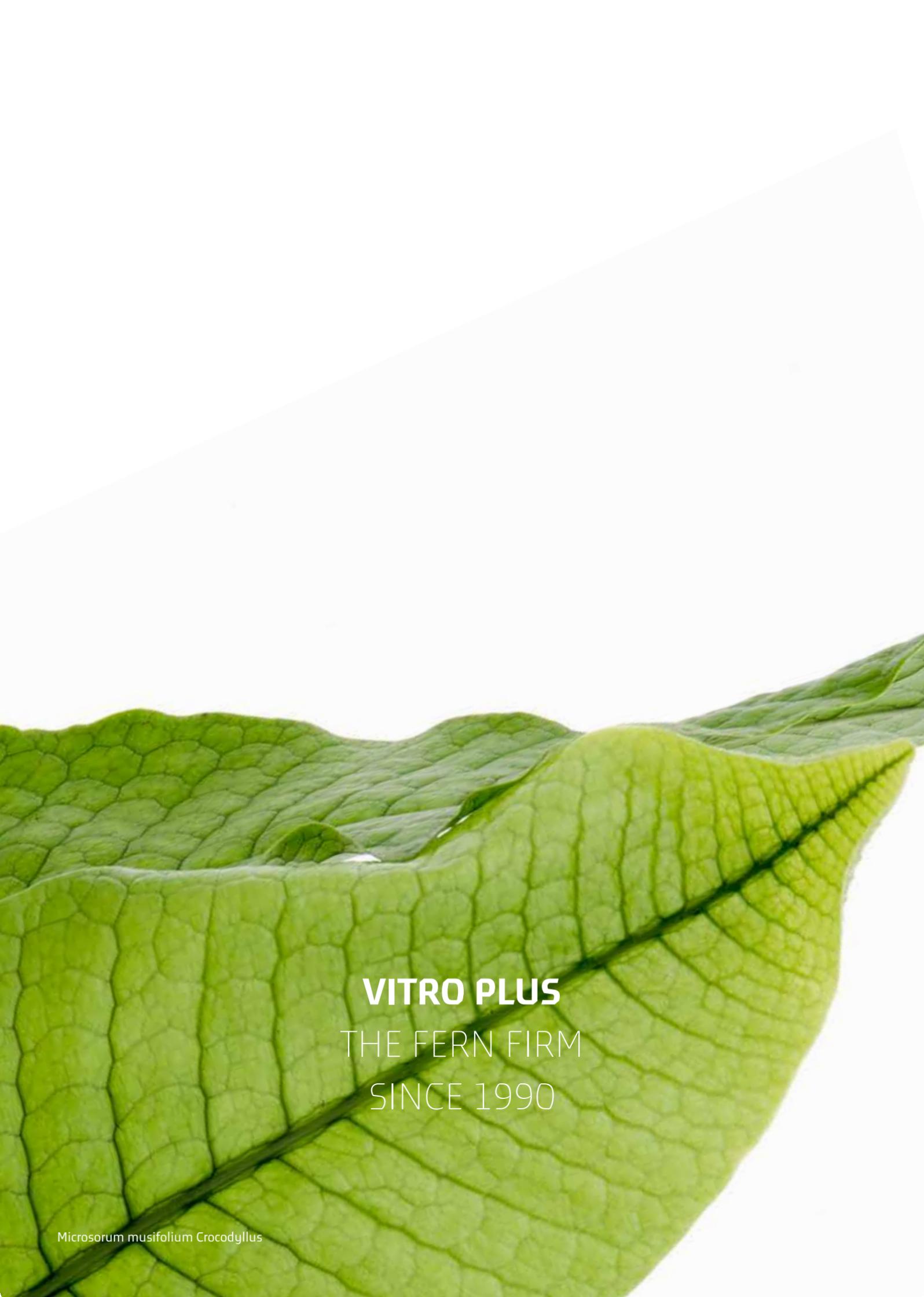




VITRO PLUS
THE FERN FIRM
SINCE 1990

corporate information & assortment





VITRO PLUS
THE FERN FIRM
SINCE 1990

Microsorium musifolium Crocodyllus



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CONTRIBUTING TO A GREENER WORLD

Almost 35 years have already passed since Vitro Plus was founded. Looking back, there has never been any doubt that our specialisation in Ferns has been the only right choice, right from the very beginning. After all, Ferns are our passion.

Even so, a lot has also changed in horticulture over these three and a half decades, and we're facing a rapid succession of increasingly difficult challenges. Climate problems, energy transition and deforestation are all having a severe impact on all of us.

Fortunately, we've also noticed how passionate people are about nature, and the growing desire for a natural environment in and around the home.

The impact of this on Vitro Plus has been a significant expansion of our range. The traditional 'Boston Fern' used to reign supreme, but now there is also space for innovative Ferns, both for the home and more and more for the garden.

At Vitro Plus, we're enthusiastic about continuing to stimulate this transition in the coming years. We will continue to offer customers a broad and exciting range of beautiful Ferns for the home and garden, doing our bit for the happiness that green plants bring to our world.

We also want to contribute to a Greener World, because it's so desperately needed.

On behalf of the Management Board

Ard, Elenita and John

AS AN INNOVATIVE COMPANY WE TRY TO STAY AT THE FOREFRONT

JOHN BIJL

Owner & Sales Director

John Bijl founded
Vitro Plus in 1990
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ARD STOUTJESDIJK

Co-owner & Product Director

Ard has been working at
Vitro Plus since 2001
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ELENITA DAVIDSE

Managing Director Finance & HR

Elenita has been working at
Vitro Plus since 2016
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WE WANT TO BE THOUGHT OF AS THE SPECIALIST IN OUR FIELD

John Bijl

"I supervise our team and assist them when necessary. Like everyone else at Vitro Plus, they know that they can always rely on me and that I am always available. It is typical for our open informal approach to welcome questions and ideas as long as they are in the interests of our customers. In general, the plans I'm establishing for the next few years still involve focusing on ferns and developing not only our tropical indoor ferns but also our hardy outdoor ferns. These will be hardy ferns propagated from spores. After all, we are constantly noticing the demand for them. This validates our expectation that 'the fern' is experiencing a revival. For growers, this means new opportunities to earn money with our products. And we can help them by providing information and advice regarding cultivation and how to approach their market. We want to be thought of as the specialist in our field; when growers think of ferns, they should think of us, and when they think of Vitro Plus, they should think of ferns."

Ard Stoutjesdijk

"My job revolves around keeping our business processes running smoothly. Together with the close-knit team formed in recent years, we work on perfecting control of both the tissue culture process and the renewed spore sowing process. We've already achieved some impressive successes, but we're determined to go even further and continue to deliver our unequalled quality with the help of our advanced automated production systems that we develop ourselves. This enables us to maintain a consistent and efficient supply of a broad selection of products as and when they are required. Market needs are communicated to us by our marketing and sales departments and then carefully incorporated into our production process by our research team. I'm proud that I work with such a great group of people every day. They share my enthusiasm in taking on these challenges and embracing them wholeheartedly."

Elenita Davidse

"I've been working at Vitro Plus since 2016, in recent years as managing director and member of the MT, together with John and Ard. I'm responsible for the areas of finance and HRM."

As an innovative company, we try to stay at the forefront by continuously improving our production processes. We engage carefully with our customers, and move in the direction in which they want to grow. We also have to take into account all kinds of external factors, such as energy shortages, demographic trends, etc. All these developments define the point on the horizon towards which we want to head, and with which our financial policy and personnel policy have to be coordinated."

We recently took a major step with the completion of a new production facility. 552 PV panels have started generating electricity at this production facility, so it won't be suffering any energy shortages. The completion of the building marks the achievement of one of our goals, and offers a solution for various developments."

Balancing needs and possibilities in a financially sound way is a challenging responsibility that I really enjoy."

In addition to financial resources, all our colleagues are invaluable to us. We try to get the right people in the right place, so that everyone enjoys coming to work. It's important that people can stay with us in the long-term, as it benefits business continuity. We arrange internal training courses, among other things, to promote this employability. If somebody enjoys something and they're good at it, the work is often second nature. We also try to rotate tasks, to keep our company agile and make sure people's work has plenty of variety. However, it doesn't stop there; we encourage sports by providing an opportunity to exercise or a sports budget, and regularly organise fun activities that promote solidarity. Just as we listen to our customers, we also listen to our colleagues as well as possible, and do what we can to respond to their needs. This also requires needs and possibilities to be balanced, which I'm happy to undertake together with other colleagues."



WE GROW OUR SPORE FERNS IN CLIMATE CELLS

QUALITY IN OUR CLIMATE CELLS

Alongside tissue culture propagation, we've also been increasingly specialising in spore propagation in recent years. This enables us to supply fern species that cannot be propagated via tissue culture. In addition, a whole new market segment, namely perennial ferns for the garden, will become available to our customers.

Spore ferns are traditionally grown in greenhouses, but at Vitro Plus we decided to grow them in climate cells where we can control the conditions much better than in greenhouses, and avoid the need for plant protection products.

Our patented foil technology allows us to plan growing times very exactly and grow in clean conditions, which benefits quality and delivery reliability.

An additional advantage of this unique sowing technique is that the spore ferns are sown directly on plugs. As a result, they grow very evenly and are easy to either process manually with the supplied push-out plates or mechanically with a transplanting machine.

We've been carrying out research on this for a number of years. Five years ago, we decided to build a new laboratory with culture cells specifically for this process, preparing us for a sustainable future.

The laboratory has now been in use for some time, and it has been shown that the propagation process works well.

In addition to the existing range of outdoor ferns, there is also space to innovate and expand with new species, where we're happy to use our Cedar House Ferns marketing concept to help our customers.

MY ULTIMATE GOAL IS TO PROVIDE THE VITRO PLUS PRODUCTION DEPARTMENTS WITH VALUABLE ADVICE

TOGETHER WE OPTIMISE THE OPERATIONS IN THE GREEN- HOUSE!

Rachel Bakker

"As the supervisor of the tissue culture quality-control team, I have a significant responsibility in ensuring product quality and examining the final product to make sure it meets our standards.

One key aspect of my work is my involvement in the greenhouse, where I spend half my time on acquiring essential practical experience in the early stages of tissue culture cultivation. I work closely on this with Marinus, who is responsible for hardening off our tissue culture plants in the greenhouse in Zierikzee. Together, we optimise the operations in the greenhouse, to improve understanding into the ideal conditions for hardening off, and the desired quality improvements of the input material.

This hands-on experience puts me in a better position to understand the next steps in the production process, and identify potential improvements. My ultimate goal is to provide the Vitro Plus production departments with valuable advice on how to refine product quality. I'm constantly working on my personal development, both through practical experience in the greenhouse and theoretical studies. Thanks to this dedication, my team and I are able to work together on maintaining and improving the highest quality standards. This new challenge really vitalizes me and gives me an incredible amount of satisfaction in my daily work."



MARINUS DE RONDE

Our greenhouse grower since 2003

RACHEL BAKKER

Manager Quality Control and Shipping

Rachel has been working at Vitro Plus since 2001

Rachel@vitroplus.nl















RAMONA VAN EIJK

QA Manager Stock / QA Assistant

Ramona has been working at Vitro Plus since 2001

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SELECTING THE MOST STRONG AND BEAUTIFUL TISSUE CULTURE

PROUD OF THE FERNS WE PRODUCE

RAMONA VAN EIJK

"When I started work at Vitro Plus in 2001, I was placed in the production department of the laboratory. A few years later I moved on to the media preparation division. In the meantime I assisted the others by checking the quality of our fern varieties and so started to know the diversity of all our fern species by heart. My experiences at all different levels of production made me what I am today; Manager QC Stock and QA Assistant at Vitroplus, most part of my workweek will entail checking the quality of our stock and selecting the strongest and most beautiful tissue culture series to propagate in our laboratory. So finally, I can say I am really proud of the ferns we produce."

MEETING REGULARLY KEEPS THE WHOLE TEAM ON ITS TOES AND THE QUALITY STANDARDS HIGH

OUR MISSION

As we see it, our mission is to help fern growers all over the world to make advancements in what they do and how they serve their market. We concentrate on producing the very best starting material and providing our buyers with the best possible assistance. Two of our staff members are constantly engaged in the development of strong new varieties. We would be more than happy to help you choose the varieties that would suit your situation best. We will also be pleased to help growers who are considering the production of ferns in addition to their existing crops.

OUR AMBITION

We want to be number one in products and customer assistance. You can expect a plus from our team in every regard: in personal contacts, information and advice relevant to your company, delivery method, growing instructions, and the optimum accessibility of our staff whenever you have a question. In addition to these benefits, you will be doing business with a company engaged in continuous innovation and that keeps you always up to date. This means you will regularly hear about new ferns that will inspire the next link in your distribution chain. Our goal is to introduce ten new varieties every year.





SELECTION PRODUCES FERNS THAT ARE DEEPER GREEN, STRONGER, MORE COMPACT AND FASTER GROWING

INNOVATION: A PERMANENT PRIORITY

An innovative approach has been part of our business ever since it was founded. When developing our products, we always consider both ends of the distribution chain. We keep an eye on the market and identify both the current and potential demand. We follow developments in technology and determine the innovations that would offer us and our customers opportunities. As a result of examining the available

technology, we have developed the Vitro-Plug®: a practical and efficient method of growing on young plant material. At Vitro Plus, the Vitro-Plug® is used for producing ferns from spores within a sterile environment. Since then, it has become one of our unique selling points, and it has also rewarded us with various business awards and patents. At Vitro Plus, innovation never stops.

VITRO PLUS WORKS HARD TO BECOME, AND TO RETAIN ITS POSITION AS THE BEST FERN COMPANY EVER

THE CLOSEST IMITATION OF SUN LIGHT

At the beginning of this century, we initiated extensive tests using LED lighting. The emergence of LED lighting combined with multilayer cultivation was a revolutionary breakthrough that made it possible to harden off ferns which are propagated by tissue culture and spores in our laboratory. The higher light level of the LED in combination with the CO2 enhancement inside the growth container results in a stronger, more developed and better rooted fern. The patented semi-permeable foil system makes this hardening process possible.

The result is simply a better product that can develop under ideal conditions. This growing process ensures that plants start their phase of greenhouse cultivation free of diseases. The cooperation with Bever Innovations (horticulture.beverinnovations.com) resulted in the development of mobile, flexible and plug-and-play LED grow trolleys with LED panels that match the natural properties of sunlight due to their unique design.

A RECOGNISED SPECIALIST IN OUR FIELD

Since our founding, we have devoted ourselves to the selection and propagation of tropical and hardy ferns. We began with just a few varieties, but now we supply over 150 varieties. Since changes are frequently made in this assortment, it's always interesting to have a look at our website every now and then or to send us an e-mail. After all, new varieties mean new opportunities!

Right from the start, Vitro Plus committed itself to being the best in its field. Our priority is you, as our customer, and how we can serve you the best - by giving you the right information, personalized advice and delivering the services as well as the products just as we promised. In our opinion, this is also part of being a 'specialist in our field'.





WE KEEP OUR ASSORTMENT EXCITING BY ANALYSING TRENDS AND CONTINUALLY DEVELOPING OUR PRODUCTS

THE VITRO PLUS FERN ASSORTMENT

Every year, we add new fern varieties and improved versions of existing varieties to our assortment. Sometimes, a certain variety is eliminated because interest among consumers is insufficient. With these comings and goings, our selection of products remains up to date and attractive. Our goals are to offer you, our customers, an interesting range of excellent products and also to promote ferns throughout the entire distribution chain as a natural, lush, contemporary item that belongs in every indoor or outdoor space. We would be pleased to assist you in selecting the fern varieties that would suit your specific growing conditions, market and marketing strategy.

INSPIRING EACH OTHER

What can you do with ferns? If you talk with an interior designer, a landscaping specialist or an imaginative consumer, you'll discover endless possibilities. The main reason is that ferns derive their beauty from the pure simplicity of their frond (the leaves of ferns) shapes and colours which makes them perfect for a wide range of interior styles in various living and working environments such as houses, restaurants, hotels, offices, showrooms, reception areas, conference rooms and waiting rooms. Ferns also purify indoor air, introduce a sense of tranquillity, and provide inspiration. Using a series of ferns produces an even stronger natural and decorative effect.

WE SEE CUSTOMER PREFERENCES AND MARKET TRENDS AS THE GOVERNING FACTORS IN OUR OPERATIONS

THE RICHNESS OF SIMPLICITY

Fossils show us that ferns were already populating our planet around 375 million years ago. This era, known as the Devonian, was when the first land vertebrates - the amphibians - were evolving from fish, so ferns are at least as old as them. Over time, the primeval fern developed into a family comprising thousands of species. Unlike most other plants, ferns produce no flowers. They derive their pure beauty from their innumerable intriguing frond shapes and their

many gradations of green, from tender light green to intensely deep shades. A good example of a deep green variety is our improved Boston fern 'Nevada'. This mysterious, restrained character of ferns makes them even more appealing. Moreover, ferns have been found to remove impurities from the air, which, in turn, creates a pleasant environment and increases labour productivity. Make sure that your product selection is responding to what your market demands.





A GOOD EXAMPLE OF A DEEP GREEN VARIETY WITH EXCELLENT GENETICS IS OUR BEST-SELLING FERN CALLED 'NEVADA'

SPECIFIC CHARACTERISTICS

Decades of careful selection have resulted in a rich collection of cultivars, each with its own specific characteristics in terms of plant size, frond shape, colour, compactness and keeping quality.

Vitro Plus has developed and selected specific cultivars which can tolerate the typical extremely dry conditions of a European living room. These new resistant varieties from Vitro Plus can easily withstand extreme climate conditions.



TROPICAL AND HARDY FERNS

Roughly speaking, ferns can be grouped into tropical and hardy ferns depending on the climate zone in which they grow best. Tropical ferns have very little frost tolerance, while hardy ferns can survive through cold periods, even though the fronds of most of these varieties will die back during the winter.

COACHING AND MOTIVATING MY COLLEAGUES IS AN IMPORTANT PART OF MY WORK

EVERY DAY IS AN INTERESTING CHALLENGE

Bedette van de Zande

"Together with the other team leaders at Vitro

Plus, it is my responsibility to make sure we produce the ordered plants for our customers. We have to deliver the correct amounts at the best quality. The customers have to be assured they receive exactly what they have ordered at the right time. That is our goal. My workdays are never the same. One day everything will run smoothly and I am able to deal easily with peripheral matters, other days I am so busy in making sure everything goes well. Coaching and motivating my colleagues are important parts of the work I do. Every day will be a new interesting challenge."



BEDETTE VAN DE ZANDE

Manager Production

Coordinator R & D

Bedette has been working at Vitro Plus since 2007

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TROPICAL FERNS

Tropical ferns are ideal for indoor use and can also be used outdoors as the climate permits. *Nephrolepis* is by far the best-known genus and is available in dozens of varieties. Careful selection has resulted in a rich collection of cultivars, each being different to the other in terms of frond size, shape, and colour; compactness and sturdiness. We would be pleased to provide you with more details. In Europe, tropical ferns are usually used as table ferns. In the U.S., more of them are used in hanging baskets.

FAVOURITE FERNS FROM VITRO PLUS

Our patented 'Nevada' is a real winner in the U.S.; the following characteristics of this fern have practically eliminated the use of the traditionally popular Boston Fern:

1. Scarcely any leaf loss.
2. Excellent transport.
3. Shelf life qualities.
4. More plants can be produced within a certain surface area.
5. Deeper green colour.
6. No cleaning required during harvest.

Another star is our patented 'Ariane'. This fern displays the same characteristics as 'Nevada', but has slightly curled pinnate leaflets and an upright habit very similar to 'Emerald Queen', which is still the most commonly purchased fern for tropical landscaping. This makes 'Ariane' a good addition. This fern can also be used for landscaping since it can easily tolerate bright sunlight. At lower light levels, it becomes less upright which even makes the plant suitable for hanging baskets.

For smaller pot sizes (up to 14 cm / 5.5 inches), 'Montana' is the best choice, particularly due to its easy care. This fern also has an upright habit. 'Fluffy Ruffles' is also a strong fern perfect for 10 to 12 cm / 3.9 to 4.7 inches pots, with a good shelf life. 'Green Moment' is a completely new variety; we advise to test different pot sizes in the range of 11 to 15 cm / 4.3 to 5.9 inches. The habit and colour of this fern is a mixture of our old friends 'Blue Bell' and 'Nevada'. In addition to the *Nephrolepis* cultivars, other groups are gaining popularity since they are so unlike the sword ferns. Consumers are really attracted to their interesting details. *Asplenium* varieties, especially 'Crispy Wave' and 'Crissie' with their unusual forked and undulating fronds, are extremely popular. Ferns with unusual colours such as 'Blue Star' also attract buyers.





ROSY MAIDENHAIR FERN

Adiantum hispidulum



RUBY MAIDENHAIR FERN

Adiantum hispidulum 'Ruby'



FRAGRANS MAIDENHAIR FERN

Adiantum raddianum 'Fragrans'



FRITZ LUTHII MAIDENHAIR FERN

Adiantum raddianum 'Fritz Luthii'



DELTA MAIDENHAIR FERN 'MISTY CLOUD'

Adiantum raddianum 'Ultragracillimum'



BRITTLE MAIDENHAIR FERN / FAN MAIDENHAIR FERN

Adiantum tenerum 'Peacock'





PINK MAIDENHAIR FERN

Adiantum tenerum 'Scutum Roseum'

🌿 9-11 🌱 🌿



FLOWERING FERN

Anemia mexicana

🌿 🌱 🌿 8 🌿



EAST INDIAN HOLLY FERN

Arachniodes simplicior

🌿 🌱 7-9 🌱 🌿 ✂️



BIRD'S-NEST FERN

Asplenium antiquum

🌿 🌱 10-11 🌱 🌿



CRESTED JAPANESE BIRD'S-NEST FERN

Asplenium antiquum 'Crissie'

🌿 🌱 10-11 🌱 🌿



TWISTED BIRD'S-NEST FERN EU48593 / US28746

Asplenium antiquum 'Hurricane'

🌿 🌱 10-11 🌱 🌿



CRESTED JAPANESE BIRD'S-NEST FERN

Asplenium antiquum 'Leslie'



JAPANESE BIRD'S-NEST FERN

Asplenium antiquum 'Victoria'



MOTHER FERN

Asplenium difforme x *dimorphum* 'Parvati'



BIRD'S-NEST FERN

Asplenium nidus 'Avis'



CHAMPION'S BIRD'S-NEST FERN EU52569 / US30949

Asplenium nidus 'Campio'



**PLEATED JAPANESE BIRD'S-NEST FERN
EU23704 / US20949**

Asplenium nidus 'Crispy Wave'





WHORLED HARD FERN
Blechnum appendiculatum

  8   



DWARF BRAZILIAN TREE FERN
Blechnum brasiliense 'Volcano'

  8-9 






'SILVER LADY®'
Blechnum gibbum

  10-11  



AUSTRALIAN TREE FERN
Cyathea cooperi

  9-11  



HARDY HOLLY FERN
Cyrtomium fortunei 'Clivicola'

  5  



HARE'S FOOT FERN
Davallia denticulata

  12  



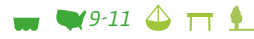
RABBIT FOOT FERN

Davallia fejeensis



WHITE RABBIT FOOT FERN

Davallia tyermannii



SOFT TREE FERN / TASMANIAN TREE FERN

Dicksonia antarctica



ANTENNA FERN

Doryopteris Pilosa var. *Gemmifera*



HEART FERN

Hemionitis arifolia



WHITE RABBIT FOOT FERN

Humata teyrmannii





CREeping SHIELD FERN

Lastreopsis microsa



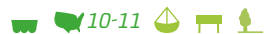
PALAPALAI FERN / LACE FERN

Microlepia strigosa



KANGAROO FERN

Microsorium diversifolium



'CROCODYLLUS' EU16160 / US13653

Microsorium musifolium



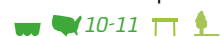
'GREEN FLAME' US17420

Microsorium punctatum



'LAUA'E IKI' US11230

Microsorium scolopendrium





'MACHO'

Nephrolepis biserrata



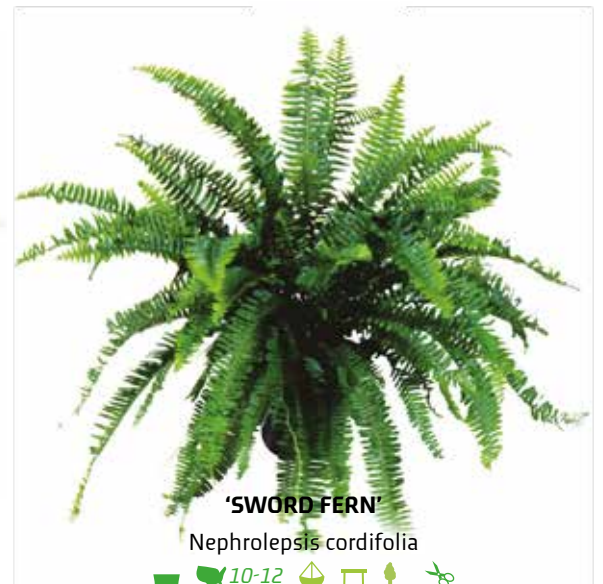
'DUFFII'

Nephrolepis cordifolia



'KUPUKUPU'

Nephrolepis cordifolia



'SWORD FERN'

Nephrolepis cordifolia



'ARIANE' EU28748 / US21218

Nephrolepis exaltata



'BLONDE'

Nephrolepis exaltata

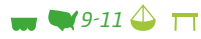






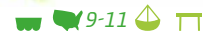
'FLUFFY RUFFLES'

Nephrolepis exaltata



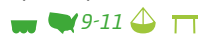
'GREEN MOMENT' EU41743 / US25311

Nephrolepis exaltata



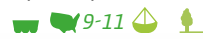
'MONTANA'

Nephrolepis exaltata



'MURANO'

Nephrolepis exaltata



Nevada®



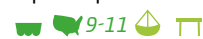
'NEVADA' EU14208 / US14190

Nephrolepis exaltata







'PETTICOAT'






Nephrolepis exaltata





'POM POM'
Nephrolepis exaltata
  9-11  








'TIGER' US15315
Nephrolepis exaltata
  9-11   



'FISHTAIL'
Nephrolepis falcata 'Furcans'
  9-12  







'EMERALD QUEEN'
Nephrolepis oblitterata
  9-11   



'SHIVA'
Nephrolepis oblitterata
  9-11  



'SUNJEST JESTERS CROWN' US16531
Nephrolepis oblitterata
  9-11  



HEART-LEAVED CLIFF BRAKE FERN

Pellaea cordifolia

🌿 8-11 🌿 🌿



BUTTON FERN

Pellaea rotundifolia

🌿 9-11 🌿



BLUE STAR

Phlebodium aureum 'Mandaianum'

🌿 9-12 🌿 🌿 ✂️



BLUE STAR 'DAVANA' EU59033 / US32332

Phlebodium aureum 'Mandaianum'

🌿 9-12 🌿 🌿 ✂️



NICOLAS DIAMOND EU55554 / US30873

x*Phlebodia*

🌿 10-12 🌿 🌿







STAGHORN FERN





Platycerium bifurcatum 'Netherlands'

🌿 9-13 🌿 🌿





CATERPILLAR FERN
Polypodium formosanum
  9-11  






UPRIGHT SHIELD FERN
Polystichum biaristatum
  5  






KOREAN ROCK FERN
Polystichum tsus-simense
  5 






SILVER BRAKE FERN
Pteris argyraea
  6-10 



MOONLIGHT FERN / CRETAN BRAKE FERN
Pteris cretica 'Mayii'
  10-12 



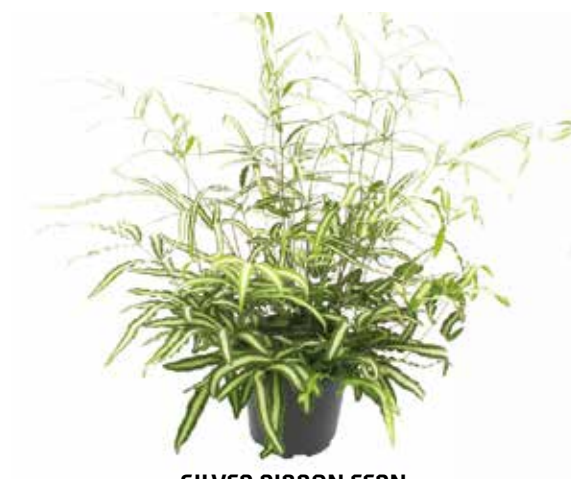
CRETAN BRAKE FERN
Pteris cretica 'Rowerii'
  10-12 



SILVER LACE FERN

Pteris ensiformis 'Evergemeiensis'

☀️ 🌿 9-11 🌿



SILVER RIBBON FERN

Pteris nipponica / *Pteris albolineata*

☀️ 🌿 8 🌿



PAINTED BRAKE FERN / THREE-COLORED BRAKE FERN

Pteris quadriaurita

☀️ 🌿 10-11 🌿



AUSTRALIAN JUNGLE BRAKE FERN

Pteris umbrosa

☀️ 🌿 8 🌿



LADDER BRAKE FERN / CHINESE BRAKE FERN /

RUSTY BRAKE FERN

Pteris vittata

☀️ 🌿 8-11 🌿 🌱



LEATHERLEAF FERN

Rumohra adiantiformis

☀️ 🌿 8-11 🌱 ✂️



MIRANDA MEERMAN

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JEFFREY BAKVIS

Manager Operations

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WE CONSTANTLY
CHECK QUALITY
OF EVERY
TRAY WE SOW

THE ULTIMATE GOAL IS TO ENSURE OUR CUSTOMERS RECEIVE THE BEST PRODUCTS

"As operations manager and team leader of the spore fern department, we make sure that the best quality spore ferns are produced on time.

We use the spores of our own mother plants in the greenhouse to produce more than 80 different varieties in our spore fern production department. To make sure every variety is as attractive as possible, we constantly check quality of every tray we sow, and

make adjustments when necessary. Each variety that we produce with the team has its own specific growth time and treatment, so we have to know our products thoroughly and what every individual species needs.

The ultimate goal of all this work is to ensure our customers receive the best products and that we continue developing as a team"

OUR CUSTOMERS ARE OUR FIRST PRIORITY

WE ADD VALUE TO THE COLLABORATION

The colleagues at the Sales department provide great knowledge, expertise and innovation for the market. Together, we don't only ensure that everything from orders to deliveries go smoothly, but we also think actively along with our customers in order to achieve our mutual goals and so add value to the cooperation. We at the Sales Department answer all customers' questions via the Sales e-mail box (sales@vitroplus.nl). Our first priority is to provide our customers with the best possible service available.

Our current Sales Team consists of some highly skilled and experienced members and recently we have welcomed some new enthusiastic colleagues to our department.

Each and every one of us is a specialist in their own field and working together in the Sales department we get real Team effort.

*You can contact us at sales@vitroplus.nl
or give us a call: [+31 111 468 088](tel:+3111468088)*



ELLEN KRAAIJENBRINK

Sales & Marketing

Has been working at Vitro Plus since 2001

VINCENT VAN VUUREN

Sales Manager

Has been working at Vitro Plus since 2019

MACHIEL MATHIJSEN

Supervisor Sales Department

Has been working at Vitro Plus since 2021

AGNES AZZAOU

Sales

Has been working at Vitro Plus since 2001

MAE DOKTER-HOFSTEENGE

Sales

Has been working at Vitro Plus since 2021

INGE NIEUWENHUIJSE

Sales Administration

Has been working at Vitro Plus since 2020

ROMY VAN OORSCHOT

Sales

Has been working at Vitro Plus since 2019

WE WANT TO
SHARE OUR
PASSION
WITH YOU

WE PUT IN A GREAT EFFORT TO RENEW AND EXPAND OUR TROPICAL- AND PERENNIAL FERN ASSORTMENT

Vincent van Vuuren

"As sales manager for Vitro Plus it's my responsibility to oversee and coordinate the sales activities of Vitro Plus, making sure our customers are always our team's top priority. I visit our customers on a regular basis and intend to act as a bridge between our customers and our sales team who are all assigned to their own group of customers and together we try to give the best help and support for all inquiries and programs. In a dynamic market landscape, we are committed to ensuring that Vitro Plus remains attuned to your needs and the demands of your market. Together with our marketing team and our customers we put in a great effort to renew and expand our tropical- and perennial

fern assortment. The biggest compliment Vitro Plus receives is being seen as the 'Fern Firm,' serving as the complete source for ferns, including tropical and perennial fern varieties, supplied as starting material or liners (EU), uniform and with a high quality standard. Although ferns are ancient plants and have been around for millions of years, we discover there is still so much to learn and explore. With thousands of varieties out there, ferns continue to amaze us every day, and we hope to share that passion and interest with you! Vitro Plus looks forward to the opportunity to meet you and talk about the possibilities it may have for your business. Let's (grow) ferns together!"



Your Sole Supplier of
True Nevada Ferns

Nevada®



VINCENT VAN VUUREN

Sales Manager

Has been working at Vitro Plus since 2019

vincent@vitroplus.nl



HELEEN POMPE

Crop Specialist

Heleen Pompe has been working at Vitro Plus since 1991

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I SUPPORT CHANGES THAT ARE IMPROVEMENTS

GOOD SALEABLE PRODUCTS

Heleen Pompe

"My work consists of managing our own motherstock. I'm also responsible for the parent material that is given to my colleagues by customers or offered to us by plant hunters. These plants are introduced to our lab to see if they would be suitable for propagation. Here, it's a question of close observation and testing for stability and the quality of the progeny. My work involves the transition of the plant as we receive it to how it responds to the situation in the lab. We test them for stability, whether they will be suitable for the customer's growing system, and whether they will make a useful addition to the customer's assortment. This means that their preferences and opinions are important to us. Like the other departments, our people in Research & Development have a real team spirit. We help each other, talk things over, and do things together. It gives us a sense of satisfaction when a plant can be successfully propagated and then sells well. That's good for the grower and the market as well."





DELIVERY AND TRANSPLANTING

IN OPTIMAL CONDITION

Besides continually expanding our fern assortment we are constantly improving growth conditions in order to deliver plants that are healthy and free of disease. In our laboratory and greenhouse, we are dedicated to managing the clump and the young plants in terms of their size. Also important are managing their growing medium and the cell size of the tray in which they are delivered.

JUST RIGHT FOR YOUR GROWING PROCESS

Our patented methods and Vitro-Trays® are available in several versions and are constantly being improved - and your experiences and inputs are

valuable in this process. We supply our ferns in a tray suitable for your growing process. These trays have standard outer dimensions but vary in their number of holes depending on the size of the plants. Trays with 96 and 126 holes are available for pre-transplanted plants, and trays with 104, 84 and 66 holes are available for transplanted plants. The trays are suitable for manual or automated transplanting, depending on your company's situation.

Our Vitro-Trays® with micro-perforated film enable the young ferns to easily withstand a long journey and even to remain in optimal condition when not processed immediately upon arrival.

WHICH TRAYS ARE RIGHT FOR YOU?

VITRO-TRAY® 96

This is the slightly larger size in our series of the 96-126 Vitro Tray®. The larger cell contains more nutrition, and the plant is slightly larger, a bit stronger.

Optionally, a 96-hole fern can be transplanted directly into a smaller pot (up to 7 cm.). Very suitable to transplant to larger plug sizes.

VITRO-TRAY® 126

This is the smallest and most sold tray size of our Vitro Tray®. It is very suitable for weaning to tray sizes, such as a 104- and 84-hole trays.

This tray is compact, which makes it economical due to the low transport costs. It is the most efficient tray in our range.

VITRO-PLUG® 192

Perfect for transplanting to smaller pot sizes (6-9 cm pots) We produce ferns out of spores on this tray sizes - only on demand. Also used for ready to use Asplenium ferns - only on demand.

VITRO-PLUG® 336

Perfect for transplanting to larger tray sizes (84 hole trays) or small pot sizes (6 - 9 cm / 2.4 - 3.5 inches). We produce ferns out of spores on this tray size - we sow on demand.

TRANSPLANTED 66-HOLE TRAY

Our 66-hole tray is particularly suitable for transplanting ferns to larger pot sizes.

TRANSPLANTED 84-HOLE TRAY

Our 84-hole tray is known for its good root formation. This delivery method is delivered loose filled and is suitable for pot sizes 12, 14 and 17 cm.

TRANSPLANTED 104-HOLE TRAY

Our 104-hole tray is noted for encouraging good root formation since it can be filled with paper-pot plugs.

SELECTION ADVICE

For more information and advice about the tray that is best for your growing process, you can visit www.vitroplus.nl, send an e-mail to sales@vitroplus.nl, or call your dedicated contact at [+31 \(0\) 111 468 088](tel:+3120111468088).

For additional information and the legal disclaimer, please refer to our website. www.vitroplus.nl/disclaimer
This disclaimer also applies to these guidelines.

VITRO-PLUG® 336



29 x 38,5 x 6,7 centimeter
11.42 x 15.16 x 2.64 inches



0,8 x 1,3 x 2,8 centimeter
0.31 x 0.51 x 1.10 inches





VITRO-TRAY® 126



29,5 x 19 x 4 centimeter
11.61 x 7.48 x 1.57 inches



1,4 x 1,4 x 1,2 centimeter
0.55 x 0.55 x 0.62 inches

VITRO-PLUG® 192



29 x 38,5 x 6,7 centimeter
11.42 x 15.16 x 2.64 inches



1,9 x 1,9 x 2,5 centimeter
0.75 x 0.75 x 0.98 inches

READY TO USE

You can get started as soon as you receive your Vitro-Trays®.
Follow these instructions:

HOW TO GROW IN FERN LINERS

1. Use new or cleaned trays.
2. Use a light peat mix
(one containing Canadian peat, for example).
3. Water the medium in the trays thoroughly before use;
peat needs a certain number of hours to drench.
4. Don't plant the clumps too deeply.
5. Don't leave the trays uncovered for more than
10 minutes.
6. Cover the trays with cheesecloth for the first two
weeks, preferably leaving 1 or 2 feet of space between
the trays. Alternatives to cheesecloth are plastic domes
of clear plastic material. Another alternative would
be to use a fog system, but do not use a heavy mist
during the first 2 weeks.
7. Maintain high humidity (an RH of around 95%).
8. No additional feeding during the first 2 weeks.
9. After 2 weeks, move trays to an area with more light
(partial shade), reduce humidity to 80% if possible,
and start watering every day or every other day,
preferably from below.
10. When fertilising from above, always rinse the plants
with clear water.
11. Water early in the morning.
12. Depending on the variety, the cultivation period for
ferns in a 72 hole liner is 8 to 10 weeks.

VITRO-TRAY® 96



29,5 x 18,5 x 6,6 centimeter
11.61 x 7.28 x 2.6 inches



1,8 x 1,8 x 1,8 centimeter
0.71 x 0.71 x 0.71 inches

I REALIZED THAT FERNS IN THIS PART OF THE WORLD HAVE ALWAYS BEEN PART OF DAILY LIFE

VITRO PLUS IN 2050

"When I was on a field trip with my colleagues from Vitro Plus in Scotland a few years ago, celebrating our 30th anniversary, I realized that ferns in this part of the world have always been part of daily life for centuries. This explains why ferns are so popular in the US nowadays. It were namely the very first settlers who brought their way of life with them and even carried living fern plants when they arrived in small ships on the coast of America some 350 years ago.

The hanging baskets with Boston ferns are still a tradition and will remain so for generations to come. We have also noticed that ferns are becoming more and more popular and are frequently used in landscaping and gardening and certainly will be appreciated even more when they are well presented and promoted in the market. Most frequently asked questions are:

But where do you plant ferns and with what other plants? How do you take care of them to keep your garden beautiful?

To properly answer all these questions, we decided to participate in Castle Fairs in Belgium and

the Netherlands, where we also promote our new varieties of outdoor ferns.

Fern enthusiasts tell us first-hand how these species are doing in their gardens, and we find out which species are popular.

Our Fernery has now been completed, and we've already had plenty of visitors. About half of the 200 species of outdoor ferns have already been planted, and we're learning a lot about location, winter hardiness, and the popularity of species among the public visiting the garden.

It's a pleasure to welcome our Vitro Plus customers, other professional fern enthusiasts, and consumers to our cedar Victorian greenhouse,

Where we can share the story about the history and future of ferns. That story is called Cedar House Ferns, and you're very welcome to come along and hear all about it."



HARDY FERNS

In nature, ferns are denizens of woods and forests. They thrive on moist soil that is rich in humus and prefer a spot in shade or dappled shade. Nevertheless, as long as they are not allowed to dry out, most varieties will tolerate direct sun. Communicating clearly with buyers at the points of sale and via labels is essential for the success of this product.

GOOD COLD STRESS TOLERANCE

Fully hardy ferns (sometimes also called perennial ferns) are generally resistant to cold and can enliven a garden, patio, or living room for many years. 'Fully hardy', however, should not be mistaken as being synonymous with evergreen! Although this is the case with some varieties, the fronds of many fully hardy outdoor ferns will die back in autumn and winter. This is also the beauty of ferns; next spring, they will release vigorous new shoots again which slowly unfurl from the heart of the plant to become magnificent long fronds. Communicating these important details with the customer is an important element in the success of this product.

MARKETING STRATEGY

Most hardy ferns are sold in the spring, and, to a lesser degree, in the autumn. Because hardy ferns are used in gardens and landscaping projects, this makes them - unlike tropical ferns - a real seasonal product. The planting location and the phenomenon of autumn and winter dormancy must be clearly communicated to consumers by such means as labels on pots and plants. To encourage consumer purchases, the assortment has to consist of at least ten highly contrasting varieties that make a striking visual group display which invites selection and eventually purchase.

FAVOURITE HARDY FERNS

Most garden ferns are members of the *Dryopteris* (wood ferns) and *Polystichum* (holly ferns) families. Not everyone can easily tell the difference between these genera, but the fronds of holly ferns generally look somewhat more substantial.

DRYOPTERIS

One valuable member of the genus *Dryopteris* is *Dryopteris erythrosora* (Autumn Fern). This species has fronds of a striking orange-red color, especially in spring when the male ferns unfurl what look like the tentacles of a science-fiction monster. *Dryopteris atrata* has large deep green fronds that resemble the trunk of an elephant as they unfurl. Although its common English name is the Black Wood Fern or Shaggy Wood Fern, its Dutch name could be translated as 'Elephant Fern'. *Dryopteris remota* is a valuable plant and easy to grow. It emerges again every spring and is often more drought-tolerant than many other garden plants.

POLYSTICHUMS

The common name for *Polystichum acrostichoides* is the Christmas Fern because it looks so attractive at that time of year. *Polystichum tsus-simense* has many uses. Although this little plant was intended for indoors, it proved to be so hardy that it makes an excellent garden plant. Its fronds also make good foliage to use in bouquets and other floral arrangements. The smaller dimensions of *Polystichum rigens* make it a good choice for small urban gardens.

CYRTOMIUMS

Cyrtomium varieties are still less familiar garden ferns. They are characterised (as their common name, Holly Fern, suggests) by simple leathery leaflets with serrated edges. When planted in a somewhat sheltered location, *Cyrtomium falcatum* 'Rochfordianum' is practically hardy. With its attractive dark green fronds, it provides your garden with a beautiful diversity. These fronds also make it suitable for use in floristry. *Cyrtomium fortunei* 'Clivicola' is extremely hardy and has lighter, less glossy fronds.

CHEILANTHES

Cheilanthes lanosa is a unique species: a nice small fern with a grey woolly surface on the undersides of its fronds. A perfect plant for a rocky location in the sun. Once its roots have found a cool spot deep in the soil, it will survive dry hot summers.



ROSY MAIDENHAIR FERN

Adiantum hispidulum



RUBY MAIDENHAIR FERN

Adiantum hispidulum 'Ruby'



AMERICAN MAIDENHAIR FERN

Adiantum pedatum



FLOWERING FERN

Anemia mexicana



MERLOT LADY FERN / TWO-TIERED LADY FERN

Anisocampium sheareri



BROAD HOLLY FERN

Arachniodes miqueliana





EAST INDIAN HOLLY FERN

Arachniodes simplicior



HART'S TONGUE FERN

Asplenium scolopendrium



NARROW HART'S TONGUE FERN

Asplenium scolopendrium 'Angustifolium'



LADY FERN

Athyrium filix-femina



CRESTED LADY FERN

Athyrium filix-femina 'Vernoniaea Cristatum'



DAINTY LADY FERN

Athyrium minimum





CRESTED JAPANESE PAINTED FERN

Athyrium niponicum 'Applecourt'



JAPANESE PAINTED FERN

Athyrium niponicum 'Pictum'



EARED LADY FERN

Athyrium otophorum 'Okanum'



WHORLED HARD FERN

Blechnum appendiculatum



DEER FERN

Blechnum spicant



HAIRY LIP FERN

Cheilanthes lanosa





AUSTRALIAN TREE FERN

Cyathea cooperi



DWARF HOLLY FERN

Cyrtomium caryotideum



SICKLE LEAVED HOLLY FERN

Cyrtomium devexiscapulae



JAPANESE HOLLY FERN

Cyrtomium falcatum 'Rochfordianum'



HARDY HOLLY FERN

Cyrtomium fortunei 'Clivicola'



SOFT TREE FERN / TASMANIAN TREE FERN

Dicksonia antarctica





GOLDEN SCALED MALE FERN

Dryopteris affinis



CRESTED GOLDEN SCALED MALE FERN

Dryopteris affinis "Cristata the King"



SHAGGY SHIELD FERN

Dryopteris atrata / *Dryopteris cycadina*



CHAMPION'S WOOD FERN

Dryopteris championii



CURLY DWARF MALE FERN

Dryopteris dickinsii 'Crispa'



AUTUMN FERN

Dryopteris erythrosora





COMPACT AUTUMN FERN

Dryopteris erythrosora 'Compact'



KOIDSUMA'S WOOD FERN

Dryopteris erythrosora var. *Koidzumiana*



MALE FERN

Dryopteris filix-mas



BARNE'S MALE FERN

Dryopteris filix-mas 'Barnesii'



FORMOSAN WOOD FERN

Dryopteris formosana



GIANT WOOD FERN

Dryopteris goldiana





KURATA'S FERN

Dryopteris kuratae / *Dryopteris pycnopteroïdes*



SUNSET FERN

Dryopteris lepidopoda



MEXICAN MALE FERN

Dryopteris pseudoflix-mas



REMOTE WOOD FERN

Dryopteris remota



KOREAN MOUNTAIN FERN

Dryopteris sichotensis



JAPANESE WOOD FERN / SIEBOLD'S WOOD FERN

Dryopteris sieboldii





STEWART'S HIMALAYAN WOOD FERN

Dryopteris stewartii



JURASSIC WALLICH'S WOOD FERN EU64920 / U532735

Dryopteris wallichiana 'Jurassic Gold'



HEART-LEAVED CLIFF BREAK FERN

Pellaea cordifolia



BUTTON FERN

Pellaea rotundifolia



WINGED BEECH FERN / JAPANESE BEECH FERN

Phegopteris decursive-pinnata



COMMON POLYPODIUM FERN

Polypodium vulgare





CHRISTMAS FERN
Polystichum acrostichoides
 4



UPRIGHT SHIELD FERN
Polystichum biaristatum
 5



WESTERN SWORD FERN
Polystichum munitum
 6



ASIAN SABER FERN / LONG EARED HOLLY FERN
Polystichum neolobatum
 5



TASSEL OR BRISTLE FERN
Polystichum polyblepharum
 5



RIGID OR PRICKLY HOLLY FERN
Polystichum rigens
 5



SOFT SHIELD FERN
Polystichum setiferum 'Dahlem'
 🌿 6 🌿



KOREAN ROCK FERN
Polystichum tsus-simense
 🌿 5 🌿



YUNNAN HOLLY FERN
Polystichum yunnanense
 🌿 5 🌿



SILVER RIBBON FERN
Pteris nipponica / *Pteris albolineata*
 🌿 8 🌿



AUSTRALIA JUNGLE BRAKE FERN
Pteris umbrosa
 🌿 8 🌿



LADDER BRAKE / CHINESE BRAKE / RUSTY BRAKE FERN
Pteris vittata
 🌿 8 🌿



SILVER BRAKE FERN

Pteris argyraea

🌿 🗺️ 6-10



WIDESPREAD MAIDEN FERN / SOUTHERN WOOD FERN

Thelypteris kunthii

🌿 🗺️ 7 🌿

FOR EVERY LUSTRUM, WE PLAN A JOURNEY!

TO BEAUTIFUL SCOTLAND

At the moment Vitro Plus has about 80 employees in service and almost everybody is member of our staff association. The board of this association consists out of persons who represents all divisions of Vitro Plus and they regularly think of and organize fun outings for their colleagues. For every lustrum, we plan a journey! It's almost time to celebrate our 35th anniversary! We're very excited about that and hopefully this celebration will be as pleasant as the one in Scotland when we celebrated Vitro Plus' 30th birthday!

FOLLOW US ON SOCIAL MEDIA

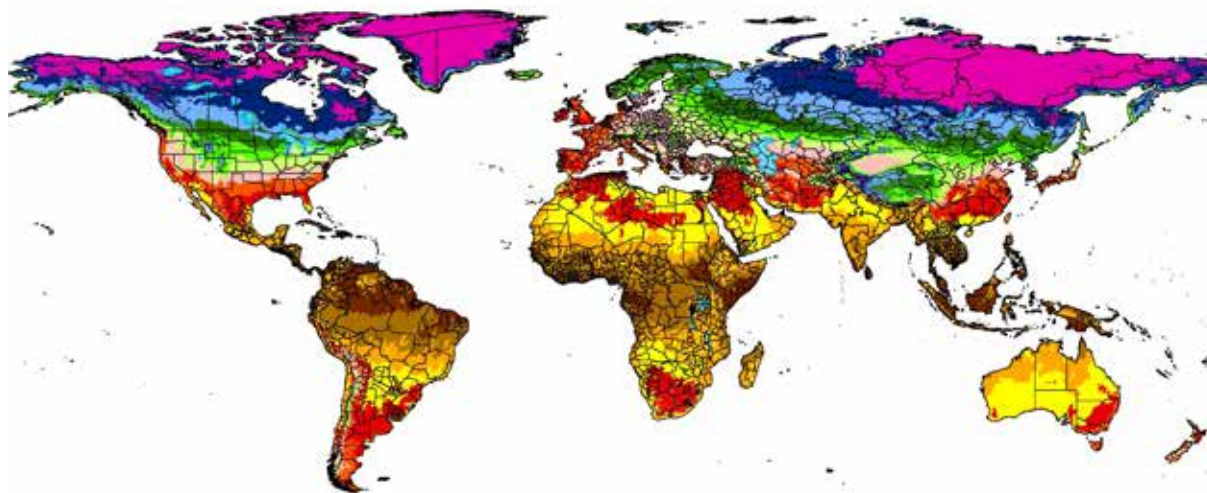
A PEEK BEHIND THE CURTAIN

For a peek behind the curtain of Vitro Plus, look us up at Facebook, LinkedIn and Instagram. We share pictures and news facts at least twice a week!

@VitroPlusB.V.



HARDINESS ZONE MAP



Temp (°F)	Zone	Temp (°C)					
-60 to -50	ZONE 1	-51.1 to -45.6	-10 to 0	ZONE 6	-23.3 to -17.8	40 to 50	ZONE 11 4.4 to 10
-50 to -40	ZONE 2	-45.6 to -40	0 to 10	ZONE 7	-17.8 to -12.2	50 to 60	ZONE 12 10 to 15.6
-40 to -30	ZONE 3	-40 to -34.4	10 to 20	ZONE 8	-12.2 to -6.7	60 to 70	ZONE 13 15.6 to 21.1
-30 to -20	ZONE 4	-34.4 to -28.9	20 to 30	ZONE 9	-6.7 to -1.1		
-20 to -10	ZONE 5	-28.9 to -23.3	30 to 40	ZONE 10	-1.1 to 4.4		

ZONE 3

American Maidenhair Fern

Giant Wood Fern / Goldie's Fern

Japanese Painted Fern

ZONE 4

Barne's Male Fern

Christmas Fern

Common Polypodium

Crested Golden Scaled Male Fern

Crested Lady Fern

Curly Dwarf Male Fern

Golden Scaled Male Fern

Hart's Tongue Fern

Lady Fern

Male Fern

Narrow Hart's Tongue Fern

Remote Wood Fern

Winged Beech fern / Japanese Beech Fern

ZONE 5

Asian Saber Fern / Long Eared Holly Fern

Autumn Fern

Broad Holly Fern

Champion's Wood Fern

Compact Autumn Fern

Crested Japanese Painted Fern

Deer Fern

Hairy Lip Fern

Hardy Holly Fern

Jurassic Wallichs Wood Fern

Korean Mountain Fern

Korean Rock Fern

Mexican Male Fern

Sunset Fern

Tassel / Bristle Fern

Upright Shield Fern

Rigid / Prickly Holly Fern

Yunnan Holly Fern

ZONE 6

Dainty Lady fern	Japanese Wood Fern/ Siebold's Wood Fern	Soft Shield Fern
Dwarf Holly Fern	Kurata's Fern	Silver Brake Fern
Eared Lady Fern	Shaggy Shield Fern	Western Sword Fern
Formosan Wood Fern	Stewart's Himalayan Wood Fern	

ZONE 7

East Indian Holly Fern	Rosy Maidenhair Fern	Merlot Lady Fern / Two-tiered Lady Fern
Japanese Holly Fern	Ruby Maidenhair Fern	Widespread Maiden Fern / Southern
Koidsuma's Wood Fern	Sickle Leaved Holly Fern	Wood Fern

ZONE 8

Australian Jungle Brake Fern	Flowering Fern	Leatherleaf Fern
Button Fern	Fragrans Maidenhair fern	Silver Ribbon Fern
Creeping Shield Fern	Fritz Luthii Maidenhair Fern	Soft Tree Fern
Delta Maidenhair Fern	Heart-leaved Cliff Brake Fern	Soft Tree Fern / Tasmanian Tree Fern
Dwarf Brazilian Tree Fern	Ladder Brake Fern	Whorled Hard Fern

ZONE 9

Ariane	Cotton Candy	Petticoat
Australian Tree Fern	Emerald Queen	Pink Maidenhair fern
Boston Compacta	Emina	Pom Pom
Boston Blue Bell	Fishtail	Shiva
Boston Fern	Fluffy Ruffles	Silverlace Fern
Blue Star	Green Moment	Staghorn Fern
Blonde	Montana	Sunjest Jesters Crown
Blue Star Davana	Murano	Tiger Fern
Caterpillar Fern	Nevada	White Rabbit Foot Fern
Corditas	Palapalai fern	

ZONE 10

Antenna Fern	Duffi	Mother Fern
Heart Fern	Green Flame	Nicolas Diamond Fern
Bird's-Nest Fern	Laua'e iki	Painted Brake Fern
Brittle Maidenhair fern	Japanese Bird's-Nest Fern	Pleated Bird's Nest Fern
Champions Bird's-Nest Fern	Kangaroo Fern	Rabbit Foot Fern
Crested Japanese Bird's-Nest Fern	Kupukupu	Silver Lady
Cretan Brake Fern	Macho	Sword Fern
Crocodyllus	Moonlight Fern	Twisted Bird's-Nest Fern

ZONE 12

Hare's Foot Fern

CONTACT

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employee of your choice (these are
distributed throughout this brochure).*

website www.vitroplus.nl

facebook Vitro Plus B.V.

COLOPHON

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