





This is not  
a product  
catalogue.  
it's a growth  
catalogue





● Nico van der Spek en Richard Heemskerk

# Preface

Hortus is the international supplier for all your horticultural products. We have many years of experience and all the knowledge to help you achieve more.

Hortus is a one-stop shop where growers such as yourself can find absolutely everything to grow your flowers, plants or fruits. But we go the extra mile. Our strength is that we work with you, and come up with products and ideas that really add something. This will improve your cultivation or ensure that you can grow more sustainably, for example. We try to unburden you completely in this area.

Hortus was founded in 2005 by three partners and has combined the best of both worlds from the start: that of the grower and that of the supplier. In their daily practice, Richard Heemskerk, who is from a growers family, and Nico van der Spek, a farmer's son and working for a supplier, saw several points for improvement for their industry. Together with Willem Bakker, they decided to do it themselves and that turned out to be a golden choice. Hortus has since grown into a successful company of 30 people and has made a name for itself in more than 25 countries. As a company, we do everything we can to help the grower achieve more growth and returns. Advice and customization are of paramount importance.







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# Fertilizers & trace minerals

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# Fertilizers

Fertilizers contain important nutrients for your crop. We stock a complete range of our own brand as well as well-known brands in the market to meet every challenge and requirement. We can support you with the right fertilization schedule for optimal crop growth and maximum yield!

Wij kunnen natuurlijke meststoffen, wateroplosbare meststoffen en gecoatete meststoffen leveren.



## Natural fertilizers

### Siligood

Siligood is a leaf fertilizer containing at least 3% silica, which strengthens the cell walls, the epidermis and facilitates a better distribution of Ca and Mn. It contains a high percentage of absorbable silicic acid. The silicon particles measuring a millionth of a millimeter small makes it easily absorbed by the plant. Due to the small particles and unique formulation, very low doses suffice. It is easy applicable as foliar spray and via drip irrigation.



### eQuirein

eQuirein is an organic and natural fertilizer. eQuirein contains a high level of *Ascophyllum nodosum*, a North Atlantic seaweed known for its growth-stimulating compounds. The unique blend of freshwater algae allow it to be submitted to the plant cells.

## Water soluble fertilizers

The **water-soluble fertilizers** that we can supply, for example:

- Magnesium nitrate
- EPSOM salt
- Ammonium free calcium nitrate
- Calcium nitrate
- Magnesium nitrate
- MKP
- Potassium nitrate



We can also supply **coated fertilizers**. They are also called controlled-release fertilizers. They have the same effect as regular fertilizers, but there is a difference. The coated fertilizers are absorbed more slowly than the regular fertilizers.



# Nano trace minerals

**W**ith the nano trace elements from B+H Solutions we can offer a unique system that nourishes and stimulates the plant, promoting maximum growth and less biotic stress. All four nano trace elements work perfectly together. There is a synergistic effect between all of them, making the mixture of colloidal metals the best option for flowers and ornamentals. Our team will be pleased to advise and assist you with specific protocols.

## Advantages of nano trace minerals:

- Up to 30% more yield
- Longer vase life for cut flowers
- Dark green shiny leaves
- Fast harvest
- Less waste
- Stimulation of roots and shoots
- Bigger buds
- Stronger and longer stems
- Fungicide reduction
- Lower cost



## Good to know!

Our technical specialist designed a tank especially for trials with products like the nano trace elements from B+H Solutions. With this tank you are able to start a trial in a selected area of your greenhouse. So no need to fill your general fertilizer tank with the, in this case, nano trace elements.





## Iron chelates

**W**e also have a wide range of iron chelates. Chelated trace elements are more effective because the chelating molecules protect trace elements against insolubility and are also recognized by plant enzymes (that collect micronutrients and transport to tissues). There is another chelating factor in pH target stability and light sensitivity.

### The iron chelates we supply:

- Zinc fertilizer Zn EDTA 15%
- Copper chelate Cu EDTA 13%
- Manganese chelate Mn EDTA 13%
- FE EDTA
- HEEDTA chelate

And of course the most common used iron chelate **DTPA 6% chelate**. There are two main types of iron DTPA in liquid form, 3% and 6%. The 3% version is based on sodium and the 6% is based on ammonium. The 6% is the highest quality DTPA that is available in the market and is completely free of sodium and sulphate.

We can also supply **EDDHA**. It is recommended to add EDDHA or completely replace your iron chelates with EDDHA (red iron) when the pH value is equal or greater than 6,5. EDDHA is stable till a very high pH. An EDDHA chelate with 6% iron and an ortho-ortho (0-0) of 4.8 means that that the chelate contains 80% stable iron chelate. This doesn't mean the remaining 20% is available for the plant at all, however, this will quickly precipitate and the uptake efficiency will be lower.







# Crop protection & disinfection

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# Disinfectants

Cleaning and disinfection are of great importance for hygienic cultivation. It is the best way to prevent diseases, pests and bacteria, and to protect your crops from an infection. Also for crop and production quality cleaning and disinfection are a must.





## HuwaSan

Disinfecting? Use HuwaSan. This hydrogen-peroxide-based product is effective against (myco)bacteria, moulds, yeasts, spores, and viruses. HuwaSan contains silver; a stabilising agent used to improve the stability of the hydrogen-peroxide solution. Moreover, unlike other products, it doesn't contain any harmful substances and is odourless, colourless and non-corrosive at the correct dosage. HuwaSan has proven itself in removing biofilm and preventing blockages in the water system. We recommend peroxide test by using HuwaSan.

## Oxyl-PRO®S

Oxyl-PRO®S is a hydrogen peroxide which is designed for disinfection of water installations in agri- and horticulture. The product contains 50% hydrogen peroxide. Thanks to several ingredients such as small silver parts, the stability is very high! Biofilm contains all kinds of bacteria and microorganisms which can be harmful for crops. The formation of biofilm can eventually lead to blockade of driplines. This can be solved by using Oxyl-PRO®S.

Oxyl-PRO®S is also suitable for the cleaning of your greenhouse. During crop rotation the pressure of fungi and bacteria will increase. Start your new cultivation with a fresh and clean greenhouse.



## Freebac

Freebac-Clearoxyl® is a mild disinfectant with a long-term effect. This environmentally friendly, active oxygen-based product is only activated when it comes into contact with microorganisms or other organic contaminants. This makes Freebac-Clearoxyl® a very effective and smart disinfectant. It has an active duration of up to 110 hours, and a minimum dosing requirement.





## Flusolforte

Flusolforte is very suitable for removing soot, dust, and rust. Flusolforte a fluoride-based greenhouse cleaning agent. It can be used for very thorough cleaning for severely contaminated surfaces, for example. Flusolforte can be used on both glass and foil. This agent may affect glass coating. Please consult the instructions before use.

## Virkon S

Virkon S is a disinfectant used globally in livestock farming, and is also recommended by the industry and governments for the prevention and control of animal disease.





# Organic Clean XL

**N**atural cleaner for greenhouses, cold storage and equipment. Organic Clean XL is ideal for cleaning heavily soiled surfaces. Compared to many other products on the market, this is an environmental friendly and completely biodegradable cleaner. It's very powerful and based on natural plant extracts and vegetable soap. Organic Clean XL has a decreasing effect on yeast, moulds and bacteria. It also prevents adhesion of organic dirt. This product does not cause any toxic side effects on plants, animals or people. Therefore it can be used when the crops are still inside the greenhouse. It's possible to apply Organic Clean XL with the Aquajet or similar machines.

## How to use Organic Clean XL?

Apply Organic Clean XL in a water-diluted solution.

\* Store frost free, cool and dark

### Glass fronts/decks inside or outside

Use a high-pressure cleaner and dilute Organic Clean XL directly

Dilution: 1 ltr of OC per 200 ltr (0,5%) of water;  
about 20 ltr of OC per Ha.

Increase dilution to 1% if there is extreme contamination.

\* Does not remove shading agents

\*\* Use warm water for the best result

### Screen cloth

To clean and prevent adhesion of algae

Dilution: 1 ltr of OC per 200 ltr (0,5%) water;  
about 20 ltr of OC per Ha.

Increase dilution to 1% if there is extreme contamination.

\* Important: apply with caution, high pressure sprayguns can damage your screen cloth!

\*\* Use warm water for the best result

## Let's sum up the advantages:

1. Environmental friendly and completely biodegradable, based on natural plant extracts and vegetable soap
2. Can be applied when crops are inside the greenhouse
3. Powerful cleaning effect without any toxic side-effects
4. Inflammable
5. Pleasant fresh odour. Food will not be effected and retain own flavour
6. Prevents adhesion of organic dirt and a decreasing effect on yeasts, moulds and bacteria.
7. Does not have to be rinsed, the recommended dosage does leave little to no residue.
8. Not corrosive, does not harm your equipment and systems.





# Natural crop protection

Help your crops flourish the best possible way with one of our natural products. We can supply cans as well as barrels.





## Supramino

Supramino is an amino acid-based liquid product from enzymatic hydrolysis for foliar application. The product also contains fulvic acids and plant extracts. Supramino reduces stress of your crop to create and maintain a top condition of your crop and ensure a higher yield.

Supramino can be applied to all types of crops: Flowers, leaf vegetables, fruit vegetables, strawberries, citrus, olive trees, vines, tropical fruit trees, industrial crops, field crops, etc.

## Solucion

Solucion® is a natural plant strengthener based on a special blend of ingredients. The main ingredients Cu and Si are chelated by polysaccharides to ensure a long activity of these ingredients, and makes low dosages possible. Cu is critical for the production of Chlorophyll content. Which increases the development of fruit and flowers. The ingredient Si in Solucion® increases the thickness of the leaf cells which makes them more resistance against threads.



## Rodimus

Rodimus is a natural product which increase the resistance of the crop. It works systematically. First of all, threads and dirt are washed off the leaves. After washing Rodimus applies a film on the leaves. This film makes sure no thread can get grip on your crop. Rodimus also provides extra needed vitamins to crops. The washing of the leaves will lead to an uptake of light, which will lead to a stronger and healthy crop.





## Eco Protecta

**W**e also have all products from Eco Protecta in our assortment. For nearly twenty years Eco Protecta focuses on the development of natural and organic products. With the use of Eco Protecta products you will be able to connect the market developments and consumer trends, where food safety and corporate social responsibility are increasing. Eco Protecta products do not give any residue, no systematic side effects and no resistance after repeated use.

### AB-Gel/Spray

AB-Gel/Spray is a natural product which can be used for removing *Agrobacterium tumefaciens* in roses. *Agrobacterium* is a well-known problem in rose cultivation. AB-Gel/Spray is a natural wound cover which should be used after removing the agrobacterium tuber from the plant. After treatment the product needs approximately 36 hours to penetrate into the plant. After this the plant will recover in about two weeks. A new bud will develop, which can be used to help the plant recover.



### Botri-Spray/Gel

A natural wound coverage for coating and drying of botrytis wounds.



## Crop Care

CropCare consists exclusively of natural ingredients and mostly contains seaweed and plant extracts that stimulate vigorous development of the root system. The product ensures an explosive growth in the number of hair roots, resulting in optimal absorption of water and nutrients from the soil.

## Cropclean

Natural cleaner for vegetables and fruits after harvesting.



## Organic Clean XL

Keep your greenhouse, cold storage and equipment clean in a natural way.



## eQuirein

Improves the growth and development of new shoots.



## Dry-Up

Increase the dry up time from your crop and reduce the amount of chemicals.



# Natural predators

It is of great importance to protect your valuable crop against harmful insects and diseases. We can supply you with a wide range of natural predators. The predators we can supply meet the requirements you set concerning food safety, the environment, residues and quality. Your crop is safe to us, we are available for specific advice!

## Product range:

MICALI ( <i>Neoseiulus californicus</i> )	<i>Delphastus catalinae</i>	<i>Aphidoletes aphidimyza</i>
MICALI PLUS ( <i>Neoseiulus californicus</i> )	<i>Diglyphus isaea</i>	<i>Sphaerophoria rueppelli</i>
<i>Neoseiulus cucumeris</i>	<i>Dacnusa sibirica</i>	BOMBUS M
<i>Heterorhabditis bacteriophora</i>	<i>Stratiolaelaps scimitus</i>	Agricolle
SWIRSKII ( <i>Amblyseius swirskii</i> )	<i>Steinernema feltiae</i>	AgriNema
SWIRSKII PLUS ( <i>Amblyseius swirskii</i> )	<i>Steinernema carpocapsae</i>	Macrofeed
<i>Transeius montdorensis</i>	<i>Phytoseiulus persimilis</i>	<i>Macrocheles robustulus</i>
<i>Transeius montdorensis</i>	<i>Amblyseius degenerans</i>	<i>Trichogramma achaeae</i>
<i>Adalia bipunctata</i>	<i>Atheta coriaria</i>	<i>Feltiella acarisuga</i>
<i>Encarsia formosa</i>	<i>Aphelinus abdominalis</i>	<i>Aphidius colemani</i>
<i>Eretmocerus eremicus</i>	<i>Aphidoletes aphidimyza</i>	<i>Aphidius ervi</i>
Mix <i>Encarsia Eretmocerus</i>	<i>Episyrphus balteatus</i>	<i>Aphidius matricariae</i>
<i>Orius laevigatus</i>	Banker plant ERVI	<i>Cryptolaemus montrouzieri</i>
<i>Chrysoperla carnea</i>	<i>Amblydromalus limonicus</i>	<i>Macrolophus pygmaeus</i>

# Chemical crop protection

**W**ith a wide range of high quality products Hortus is able to advise you with the best cost effective solution to all fungal problems. Please consider that the chemical products must be approved by local authorities.

## Fungicides

A fungicide is a specific type of pesticide (chemical or biological in origin) that controls fungal diseases by inhibiting the growth of fungal spores, or killing the fungus causing the disease. Different crops are affected by different fungi. One fungal disease can affect more than one crop, similarly, a crop can be affected by more than one fungal disease. Fungicides can be used preventive or curative.



## Insecticides

Insecticides are products of chemical or biological origin used to control insects. This can be done by killing them or deterring them. Insecticides are classified according to the method of application and by the way they enter the insects body. Many insecticides effect several insects instead of one.



## Herbicides

Herbicides are pesticides used to kill or inhibit the growth of unwanted plants or weeds. Contact herbicides will kill the plant organs once they make contact. Translocated herbicides are effective against roots or other organs in the soil.







# Crop supplies

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# Crop supplies

As horticultural supplier we can supply you with everything you need to support your crops and to create the best environment for your crops. We also supply a wide range of products which can help you with transport and/or packaging. Since we care about our people and yours! We also have high quality Personal Protection Equipment in our assortment.



# Hooks

**H**igh-wire hooks are an important part of the crop rotation. In many vegetable crops, the hooks are used to bring the plant to the optimal working height. The hooks have to meet at least the following requirements: the twine must not be tangled, the hook must be firm, not slide over the wire and the freefall must “fall down” with ease so the hooks can be hung up quickly. Below you will find our best sold hooks, other types are available on request.

## Y-hook

The free fall part of the Y-Hook is fixated on the second bend on the hook. While hanging the hook, you can pull out the hook in one single motion. The free fall is on the same side as the unfolding, so they are not like any other system in the market. Although the installation at the greenhouse is a little slower than the other systems, the accuracy of the fall saves a lot of time, making the Y system extremely competitive.

Available sizes: 180 mm, 220 mm and 260 mm

Polypropylene twine: 1000 m, 1200 m, 1500 m / kg  
Possible colors: blue, red, green, yellow, black, white

Biodegradable twine: 500 m, 600 m, 1000 m / kg  
Possible colors: blue, red, green, yellow, white





## Zer-0 hook

The free fall part of the Zer-0 hook is fixated between the twine on the hook and can be easily pulled out with 1 single motion while hanging the hook.



# Growth support

For our clips and truss we have joined hands with Simonetti. We have done extensive research into different tomato clips and have been analyzing the results. The tests with the products of Simonetti in the first years were outstanding, and we are proud to say that the clips are supporting over 500 acres of plants at the moment.

## Clips

Our clips are of a simple and user-friendly design for optimal savings on labour costs. They are designed to attach the tomato twine to the plant. They offer a strong and fast connection and ensure good plant development. Advantages: User-friendly and optimal design! This reduces the twisting frequency of the twine which lower the risk of breaking the stem. A robust hinge adds strength to the twine. Hearing a click confirms that the clip is closed properly.



## Truss

Strength combined with unique flexibility to prevent damage to the stems and achieve increased production. These truss supports are specially designed to support the growth of healthy tomatoes and prevent the tomato truss from snapping. The flexibility in this support ensures easy and quick placement around the stem.



## Grafting clips

Those clips are made of a soft and flexible material with excellent light density. This material ensures easy grafting and prevents damage to the plants. We can supply grafting clips for all horticultural crops.



## J-hook

The J-hook is used by tomato growers to support the trusses mainly during autumn





## Rollertraps

**N**ext to our regular sizes we can also supply custom made sticky rolls (with a minimum order) starting from 80 metres up to 130 metres. We noticed that several growers were wasting valuable meters of rolls and made extra hours stapling the left overs. Our sticky rolls can be used to catch and monitor the intensity of harmful insects and high infected spots inside the greenhouse. The material is treated to resist UV radiation, which makes our products suitable for use in an area with a high light intensity. We developed our own special glue which does not drip at high temperatures. This ensures a long life span of the rolls.

## Sticky traps

We also have sticky traps in our range.

The sticky traps have glue on both sides to trap the insects perfectly. We supply sticky cards with or without marked squares, different colours and two types: the so-called wet and dry variants.



With the **wet variant**, you can easily see the drips of glue between the sticky traps when you take the cards apart when opening the packaging. The glue does not drip from the sticky trap after you hang it.

With the **dry variant**, the cards are separated via a silicone insert and do not appear to be wet, but still have the same trapping ability as the wet variant.





# Twine

In the horticultural sector, twine is often used to secure crops. Every crop has its own requirements, and therefore, we offer a broad assortment of twine, such as polypropylene, BIO and Jute twine in different thickness, elasticity and colours.

## Horti Twine for vegetables

We can supply various types of twine, including our own branded: Horti Twine. Which is the ideal product for a wide range of applications in greenhouse cultivation. We are able to advise you which type of twine you need, this depends on the crop you're growing. The most common types are:

### The most common types are:

1/1200 – 1 kg = 1.200 mtr long, breaking strength: 36 kg \*  
1/1500 – 1 kg = 1.500 mtr long, breaking strength: 28 kg \*

## Bio Twine

Hortus believes in sustainable agri- and horticulture. For this reason we put time, effort and research in products that are sustainable. This is why we have launched a range of bio/compostable twines. This type is made of PLA material. The CO2 emission is lowered significantly and the use of fossil materials is decreased to a minimum.

### For bio twine the standard sizes are:

1/600 – 1 kg = 600 mtr long, breaking strength: 42 kg \*  
1/800 – 1 kg = 800 mtr long, breaking strength: 28 kg \*

\*Other types upon request



## The different twines explained

There is an increasing demand for compostable and biodegradable products in the horticulture. Consumers are paying more attention to environmental friendly and sustainable products. However, in practice it appears that there is often confusion about the difference between the terms compostable and biodegradable. What do they mean? Is one better than the other? What do you need to know? We'll inform you about the ins, outs, pros, and cons of both compostable and biodegradable products.

### What is biodegradable?

Biodegradation is basically just the process of nature taking its course and breaking down materials to their component parts (disintegrated by bacteria, fungi, or some other biological process). A lot of things are biodegradable, if given enough time. Plastics in particular are known to take decades or even centuries to break down naturally, but they will break down! Technically speaking, they are biodegradable. Key is to take note of how long it takes for the product to biodegrade. Some products degrade in months, while others take years. How long it takes for something to break down depends on the conditions and time. When shopping for "green" products, the less time for biodegradation the better.

### What is compostable?

Composting is a method of waste disposal that allows organic materials to be recycled into a product that can be used as a valuable soil amendment. Compostable products do not always biodegrade naturally in a landfill (as biodegradable products would). They have to be placed in the right kind of conditions, conditions that are often only found in industrial compost facilities. If a material is compostable, this means that at least 90% of the material can be broken down in an industrial composting installation within 6 weeks. It then complies with the EN 13432 standard for compostable materials and can therefore be called compostable.

### What's the difference?

The primary difference between compostable and biodegradable is that compostable products require a specific setting in order to break down, whereas biodegradable products break down naturally. Both of these kinds of products are better for the environment than plastic products that can take hundreds of years to disintegrate.

Twine we provide for horticultural use:

- **Polypropylene twine (PP);**  
polypropylene twine is non-biodegradable. The twine is made of polypropylene.
- **PLA twine;**  
PLA twine or Polylactic acid twine is a biodegradable product.
- **Jute twine;**  
Jute is obtained from plants of the Corchorus genus. The long, soft bark fibers of jute plants can be spun into strong threads.
- **Jute Cordenka twine;**  
Jute Cordenka twine is made of one thread of cordenka and a few jute threads. The cordenka twine is manufactured from a natural viscose, which makes it fully biodegradable.



# Pots, trays and buckets

**E**ach crop has their own requirements and using the right pot will benefit the quality of your product.  
We are happy to help you find the correct product for you.



## PlantPaper

PlantPaper U1 is 100% based on plants and no glue is needed when forming the paper into Paperpots. The paper is all made from natural sources and therefore fully degradable and environmentally friendly. Due to its unique origin the paper has obtained two of the highest certificates you will find on the market: OK compost and OK biobased. The paper is developed and produced in Europe.

The unique and groundbreaking open paper pattern provides better airflow to the root system and allows the fine roots to grow without restrictions. This creates stronger and healthier plants with reduced growing time in the greenhouse and a longer sales window.

PlantPaper can be adapted to all plantpaper systems currently available on the market.

PlantPaper can actually be used in every crop segment. Start enjoying the advantages of an accelerated crop timing cycle, while reaching a better development of your crop.

With PlantPaper you can be sure you have the best quality of paper with the best results.

We offer diameter sizes from **15 to 120 mm**. Custom made sizes can also be made, contact us for the possibilities.



## Great news!

PlantPaper U1 has recently achieved Plastic Free Certification, making them among the first plug system in the world with the global standardized Plastic Free Trust Mark from the organization A Plastic Planet. The Plastic Free certificate provides growers, distributors, and consumers with complete confidence that the innovative paper contains 0% plastic.

We can also supply you with machines especially designed for the production of Paperpots. We can deliver fully automated machines but also semi-automatic machines. We would be happy to advise and assist you in choosing the right machine.



### Flower buckets

We have high-quality flower buckets available in various sizes. Fill the containers with fresh clean water, add liquid flower food and condition your fresh flowers after cutting the stems. Round and square buckets available, from 2 to 13 ltr.

### Trays

To have the best conditions for your plants, it is important to use a tray with optimal distribution of air, water and drainage. We can provide a solution-oriented approach to your needs.



### Pots & containers

Fast watering, drainage and optimum pot machine properties. We are able to supply different kind of pots and containers.

### Harvest / storage totes

Our harvest totes are specifically designed to increase efficiency and reduce waste for growers and packers. We have many different types of totes available.



# Packaging materials

**W**e have a wide variety of packaging materials for every sector in our assortment. This assortment can be supplemented with packaging that is specially developed for you, which are manufactured according to your requirements on size, quality, printing and version.



## Strapping band

We have strapping band for light to heavy applications. We also supply suitable strapping band for packages with sharp edges.



## Flower bottles

We offer polyethylene bottles which have a lid met 1 hole for the supply of water for Anthuriums and others in different sizes.



## Cardboard boxes

Cardboard boxes are available in single wall, double wall or even triple wall cardboard.

## Covers

We have a wide assortment of printed, unprinted, combi and paper covers.



We can also supply you with rubberband, labels, pot dispensers, replica auction trolleys, danish trolleys and flower foods.

# Covers and sheets

Looking for screen systems that can be installed into existing greenhouses? We've got you covered! Single, double and triple layered systems are available. Operated by using, either pull wire or push pull mechanisms. Systems can be designed for the greenhouse in question, the crop being cultivated and your specific requirements. We also supply film, mats, horticultural fleece, netting, sheets and different kinds of covers.

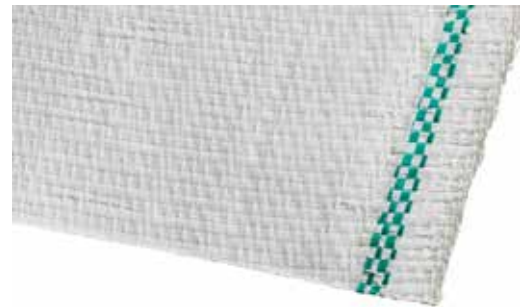


## Poly film

The climate is changing and so is the weather. Many growers have been affected by extreme weather, like heavy rainfall or hailstorms. The poly films have unique thermal, mechanical and optical properties. We can supply you with the appropriate film for your crop. Protecting, enhancing growth and meeting the expected needs.

## Transport mats

Transport mats are used for mechanical clearing of the greenhouse. They are woven to the working width of the machines that are used during clearing and have reinforced edges. Application Transport mats or crop clearance fabrics are available in white and black.



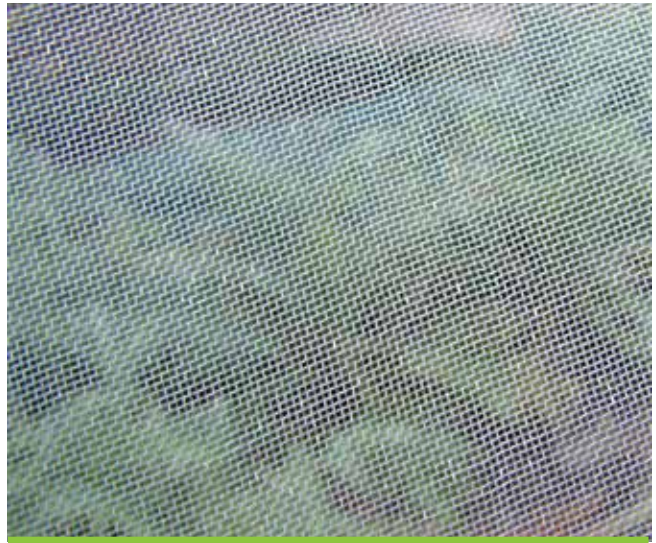
## Horticultural fleece

Horticultural fleece belongs to the group of non-woven cloths and is a soft, flexible and strong product for protection and hygiene applications. Horticultural fleece is characterised by its lightweight, water permeability, insulation and high tear resistance.



## Netting

Insect netting is often used as an alternative to insecticides to prevent harmful insects from entering the greenhouses and transferring viruses to crops. We are seeing an increasingly bigger demand for insect netting. Especially because there is an increasing focus on hygiene and food safety. The disadvantage of insect netting is the reduction of ventilation in a greenhouse. Therefore, a netting has been developed that has a minimal effect on a ventilation. The netting is available in various sizes, forms, dimensions and installation applications.



## Ground sheets

In horticulture, ground sheets are used for different purposes, such as light reflection, slope protection, weed control and to clear the greenhouse. We supply 4 colours of ground sheets in a variety of dimensions and weights:

- Black ground sheets
- White ground sheets
- Hybrid (black-white) ground sheets
- Grey ground sheets



## Winter covers

Nonwoven fabric, white colour and UV stabilized to protect crops in open fields and greenhouses. Allows water and air permeability as well as a good light transmission. Positioned directly over the crop, increases the temperature by a few degrees and protects the crop against frost and insects.

# Chalk coatings

**W**e have different kinds of chalk coatings and cleaners in our range. Let's start with Deciacover. Deciacover is a removable white shading agent for greenhouses. The product reflects solar energy and creates a diffuse light. Excellent protection against heat and light. Next to that, during cloudiness and rain, Deciacover assures a better transmission of the light as it becomes transparent. The use of Deciacover reduces stress and prevents flowers and fruits from burning. The shading agent has been studied and tested thoroughly in critical weather conditions and extreme environmental situations.

## Deciacover

### How to use?

Mix DECIACOVER in water to create a homogeneous solution. The solution must be sprayed over a clean and dry greenhouse. The preferred temperature is between 18°C and 32°C.

On the basis of the preferred dilution, 1 bucket of DECIACOVER (eg 20-22 kg) is sprayed on a greenhouse area of MIN 700 m<sup>2</sup>, MAX 1400 m<sup>2</sup> at the base.

**Standard**

20 kg shading agent

**Solution**

80 ltr water

### Why

- Reflects solar energy
- Creates diffuse light
- Good value for money
- Can be used on all greenhouses
- Easy to wash off with a detergent
- Resistance against extreme weather conditions

### Application

### Filter

**I layer**

24%

**II layers**

41%

**III layers**

59%

**IV layers**

78%



## TopClear

Cleaner to remove shading and diffusion paints. Topclear is the cleaner for effectively removing Sudlac removable shading and diffusion paints. With Topclear growers have full control when they remove the paint from their greenhouse



## Optifuse IR

### Removable Diffuse Coating With Heat Protection

Optifuse® IR is a removable greenhouse coating that scatters the light to a high degree in combination with effective heat protection. Optifuse IR is very wear resistant and can be applied on the outside of all standard greenhouses. Optifuse IR is easily removed with Topclear at the end of the season

## Optifuse

### Removable Diffuse Coating

Optifuse® is a removable greenhouse paint which diffuses incoming light while maintaining valuable grow-light levels. Optifuse is very wear resistant and specially developed for application on the outside of glass greenhouse surfaces and is removed with Topclear.



## Transpar

### Removable Protection From Heat While Maintaining Grow-Light

Transpar® is a removable shading agent based on a special pigment that reflects heat radiation very efficiently, while maintaining high grow-light levels. Transpar diffuses incoming light which is beneficial in optimizing the greenhouse climate. It is very wear resistant and can be applied on the outside of all standard greenhouses. Transpar is easily removed with Topclear at the end of the season.





## Eclipse LD

### Removable Protection From Light And Heat

Eclipse® LD is a removable white shading paint for greenhouses. It protects crops against too much light and heat throughout the season and can be applied on the outside of all standard greenhouses. Eclipse LD needs to be mixed with water and can be applied in many situations, making it a basic yet all-round product for use in horticulture worldwide. Eclipse LD is highly wear-resistant and easily removed with Topclear at the end of the season.

## ReduFuse IR

ReduFuse IR is a coating that reduces heat radiation while diffusing the light when it enters the greenhouse. That improves growth and production. A diffuse coating distributes the incoming light. This leads to the top of the crop getting a bit less light, the middle leaves more. Net photosynthesis therefore increases. ReduFuse IR distributes sunlight in the greenhouse and protects the crop from heat radiation.



## ReduClean

ReduClean has been specially developed to easily remove ReduSystems coatings from the greenhouse cover. For the use of a Dosatron® pump and for diffuse coatings, there are special ReduClean versions: ReduClean DT and ReduClean for diffuse coatings.





## Redufuse

ReduFuse distributes sunlight in the greenhouse. The even light distribution provides optimal growth of the crop and thus potentially more production and better quality. A diffuse coating ensures that the light is distributed better in the greenhouse, both horizontally and vertically. There are no more light and dark areas. Due to the evenness of the light, the crop experiences less stress and grows better. In addition, the light penetrates deeper into the crop. The leaves further down in the crop become much more active due to this light increase.

## ReduSol

ReduSol is a shading agent that reflects high levels of solar energy. It is wear-resistant and can be easily removed with ReduClean. For many years ReduSol is the obvious choice for protecting crops against excess heat and light. Every shading agent has its strong features. The agent that best suits your situation mainly depends on the crop and sometimes the variety. ReduSol provides shade from the sunlight across the whole spectrum. Depending on the climate, both light-preferring and shade-preferring crops can benefit from ReduSol.

## ReduHeat

ReduHeat is a removable coating that reflects the heat rays (infrared) of the sun. The transmission of grow light (PAR) remains high. If the crop is suffering from heat, but it could still convert light into production, ReduHeat is a good choice. This coating shades the plants from infrared light, which warms up the plants, and lets more grow light through. It is suitable for crops that thrive on large amounts of light but need protection against heat.



# Plastic foil and films

**F**or any kind of film you are at Hortus at the right address. We can supply you with a wide variety of different types of film, foil or hoses. All foils, film and hoses can be custom made but we can also supply standard sizes.



## Co2 Hose

Co2 is very important during the cultivation of crops. Co2 enhances the photosynthesis of your plants, this allows them to use light as fuel to grow. The distribution of the Co2 is done through plastic hoses. We are able to deliver high quality Co2 hoses. There are many options in punching distances, punctures, widths and lengths:

- Hole diameter is 0.8 mm
- One- or two-sided perforated, standard is two-sides (square)
- Standard punching distances 15, 20, 25, 30, 40, 50, 60, 80, 100 and 120 cm. Other punching distances on request
- Suspension strip available for 94 mm and 120 mm
- Available in LDPE and HDPE quality
- Other colors available on request
- Take into account a 5% loss when fitted

## Substrate ground cover film

By using ground cover film you can make a clean start in your glass or tunnel greenhouse. The film is a reflector and absorber of sunlight. The film reflects at least 81% of the sunlight, which will contribute to plant growth. Black/white ground cover film can be used to control weed growth. The white ground cover film is often used in combination with black Refol film. The Refol film will prevent weeds from growing, and the white film will be replaced annually to ensure optimum reflection. Widths from 230 up to 1000 cm. Standard thickness 50, 70 and 100 micron. Others available on request. Standard lengths are 200 and 300 mtr.

### Specifications:

- Minimum 81% reflection
- Standard 80 Kly UV stability longer lifetime on request
- Available in white and black/white
- Take a 3% measurement loss into account, on top of the length you need
- Can also be perforated







### Substrate film small widths

Substrate film with small widths are put onto the existing ground cover films. Small widths are easy to remove. The minimum reflection of the film is 81%, which contributes to plant growth. Widths from 30 up to 230 cm. Standard thickness 50 or 70 micron. Others available on request. Standard lengths are 500 and 1000 mtr.

#### Specifications:

- Minimum 81% reflection
- Standard 80 Kly UV stability longer lifetime on request
- Available in white and black/white
- Take a 3% measurement loss into account, on top of the length you need



### Mulch film

We have mulch films in all types and sizes. Mulch film is used to counter adverse influences from outside. Furthermore, the temperature increases under the film, so the crops grow more uniformly.

#### Specifications:

- No weeds under the mulch film
- Thickness of 15-20-25 and 30 mu reinforced by the addition of metallocenes
- Available in transparent and black, on request also available in black/white or black/silver.



### Anti-condensation film

Where anti-condensation film was used in the past to keep the energy costs as low as possible, anti-condensation film has now also been used to create a climate that is as ideal and homogeneous as possible at the start of a new crop for a number of years now.

#### Specifications:

- High diffuse light transmission
- High energy-saving action
- 10-12 months UV stable

# Pruners

**H**ortus is an official dealer and distributor for Original Löwe, so we're capable of offering our clients the best prices for their high quality products. Like they say at Löwe, every cut matters! The Original LOWE pruning shears are tools for the professional, and have been among the most proven and robust tools used in these industries for generations.



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## Löwe pruner 5.104

This LÖWE pruner 5.104 has a narrow and short blade. It is suitable for cutting branches and twigs up to a diameter of 16 mm. This lightweight pruner can you always carry with you for extra cutting work. It has a comfortable grip and we particularly recommend this pruner for smaller hands.



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## Löwe pruner 14.104

This compact bypass pruner is slim and pointed, it has a good balance which means not top-heavy. The blade is with wire cutter and it has the lowest cutting impact because of the dual shock absorber. This is a lightweight pruner.



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## Löwe pruner 14.107

This pruner is suitable for hands size small. This compact bypass pruner is slim and pointed, it has a good balance which means not top-heavy. The blade is with wire cutter and it has the lowest cutting impact because of the dual shock absorber. This is a lightweight pruner.



## Löwe pruner 16.104

This a pruner with a special cut and hold function for applications in roses and other flowers. Pruners with a cut and hold function have the finest precision when pruning. This pruner has a solid hold function after cutting. The stable clamping jaws hold the flower stem securely for taking out of the flower off the bed and present it or place to store. This pruner is very useful when producing roses.



## Löwe pruner 21.080

This pruner offers a gentle cut at a low weight. This pruner has a narrow cutting head which makes it particularly suitable for sensitive woods. The fine and gentle cut which this pruner can achieve is impressive. The blade is curved to support the drawing cutting movement. We can supply this pruner in three different lengths.

## Hortus Cut and Hold

If you do not want to pay the highest price for a pruner, the Hortus Cut and Hold is the best available choice. For an extremely low price you will receive the highest quality. With its comfortable handle grip and its 'cut and hold' function, this pruner is particularly suitable in rose production. Spare parts are available from stock.







# Orchid products

We have different kind of products in our range to support the growth of your orchids.

## Substrate mix

The right potting mix for orchids provides plenty of drainage, air circulation, or moisture — depending on the needs of your particular orchid. It is our pleasure to provide you with a tailored advice.



## Orchid pots

Plastic orchid pots are a staple of any orchid grower because repotting orchids is a regular and critical part of their health and beauty. Clear plastic orchid pots are popular for orchids because one can see what's going on with roots and moisture content.

## Collars



## Orchid trays

Our humidity trays provide the extra moisture that many orchids and other air plants thrive on. Lightweight and easy to clean, each tray is structured with shallow vertical ribs to elevate pots above the liquid level.



## Bamboo

The well-known support sticks for pot plants with heavy flowers like hydrangea, begonia and orchids.



## Grips

Special clips in different colours, shapes and sizes for clipping orchid stems to the support sticks.



## Sleeves

We can supply different kind of sleeves (sizes and colour)



## Grow forms

Grow forms can be a value-enhancing alternative and can be ordered in several models.

# Substrate

**W**e offer a variety of composts & substrates for horticulture & agricultural purposes. They are specially designed depending on the crop & planting phase.



## Peat moss

Sphagnum peat moss is well known worldwide because of its biological, physical and chemical parameters. It is an excellent horticultural material that is widely used in greenhouses (for flowers, vegetables and shrubs growing), open-air plant productions, forestry, mushroom industry, landscaping and custom growing media (substrates) manufacturing. HSI offers all types of Sphagnum peat moss directly from the source to professional growers.

## Coco peat: discs and blocks

We have managed to select a high quality of coco peat. Our coco discs are pressed dry discs which consist of specially selected and processed coir. No more unwanted debris in your coco peat and reliable specifications to ensure your crop has the best basis to grow in. Available in desired specifications.



## Substrate troughs

Substrate troughs are used for cultivation of vegetables, fruit and flowers. These plastic substrate troughs are of high-end quality and are steamable, allowing them to be used for years.

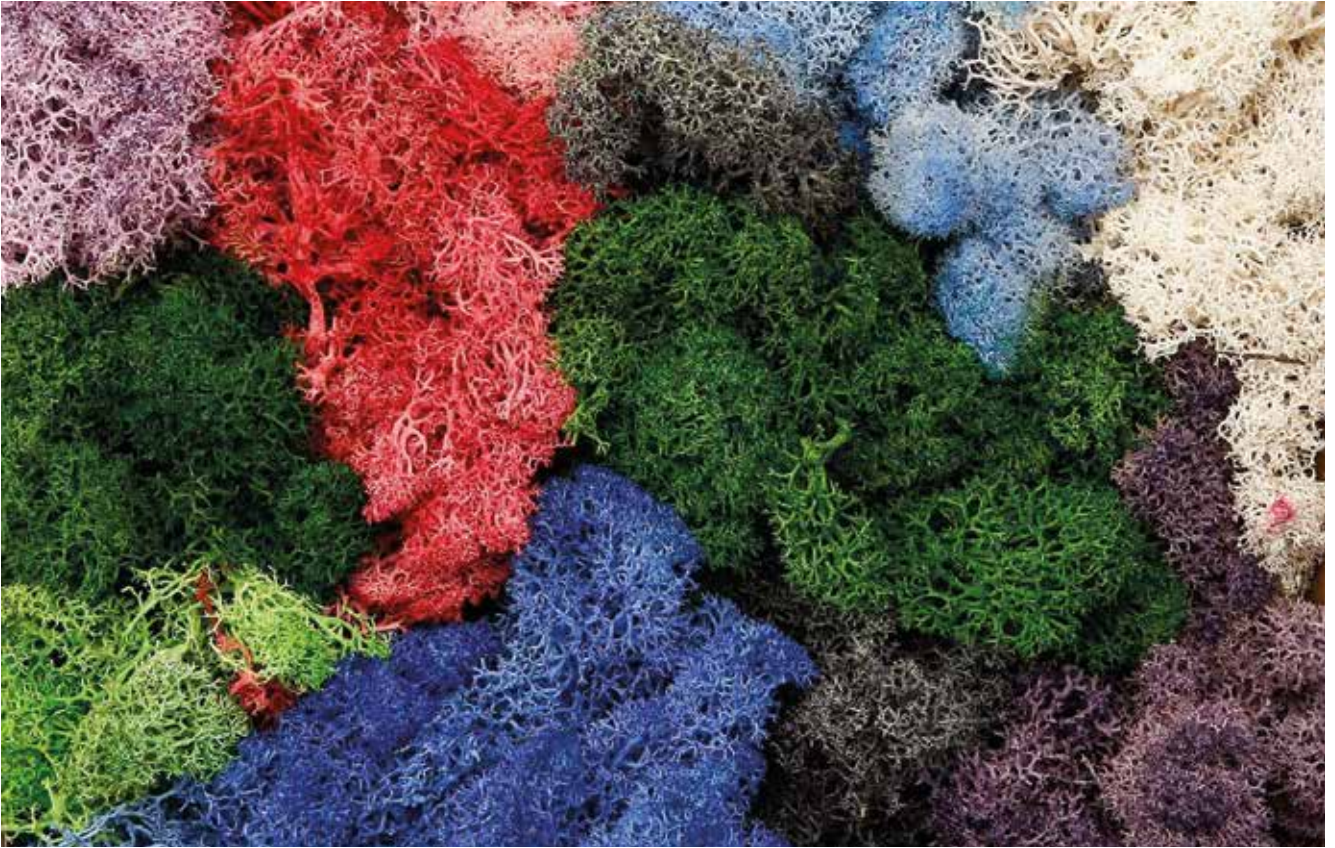


## Rockwool

The lightweight hydroponic substrate is available in cubes or blocks. The rockwool blocks ensure a fast, effective distribution of water and nutrients throughout the blocks. This enables maximum utilisation of the substrate volume. Which will lead to a fast, healthy development of the rooting system and the young plants.







# Decoration

We can supply a wide range of decorative items like reindeer moss or ceramic pots. Reindeer moss adds natural accents to any floral arrangement. Reindeer Moss has a fresh, soft and spongy feel. Simple and fun to use, it is a true pleasure to work with and rest assured that it's beautiful color won't fade! We also have flower dye in an absorbable and spray variant, glitter and leaf gloss in our assortment.



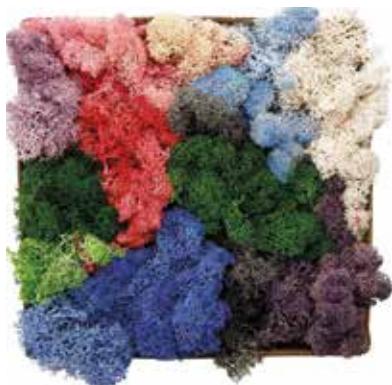
## Flower dye absorbable and spray

Flower dye makes it easy to color flowers, plants or foliage. The dye itself is water based and therefore not harmful for any flowers, foliage or pot-plants. Available in absorbable dye and dipping (spraying) dye.



## Ceramic

We can supply a wide selection of ceramic pots.



## Reindeer Moss

Reindeer Moss is one of our great mosses for floral decor. It adds natural accents to any floral arrangement. Choose from a variety of lush colors and pair your moss perfectly with your flowers' natural colors to give them true definition.



## Leaf gloss

Leaf gloss adds an instant natural gloss to plant leaves.

## Glitter

This glitter spray is ideal for fresh flowers. We can supply different colours.







# Personal Protective Equipment (PPE)

We sell products, deliver growth and care about your employees! We only supply high quality and certified personal protection equipment, health above all. We offer the protection equipment in three different categories, good, better and best. The quality of all products is the same and very high, but the difference is in the comfort.

## Safety goggles

We can supply different types of safety goggles. All of our safety goggles give you a perfect field of vision. We can supply vented as well as non-vented goggles.



## Overall

This overall protects well against chemicals and/or water.



## Spray suit

We can supply different types of spray suits. One suit is a bit thicker in quality and the other is wind, water and tear resistant. We are happy to advise you about the different suits.



## Safety boots

Boots should certainly not be missing from protective clothing. This completely black boot is completely made of PVC on the outside and the inside also has a PVC sole, lining and insole. We can also supply boots with a polyester lining or extra durable boots due to a wear-resistant sole.

## Spray gloves

Get started safely with these safety gloves. We can also supply Fully Coated Spray Gloves in different lengths.



## Half face mask

Our reusable half mask is economical, easy to maintain, easy to use and lightweight. The head strap has a support construction for a comfortable fit. We have different types available, all of great quality but with a different comfort level.



## Full face mask

Do you prefer to have your entire face covered? Then this reusable full face mask offers the solution. The inside of this mask is made of thermoplastic rubber. We have different types available, all of great quality but with a different comfort level.

## Filters

Protect yourself with filters against organic gases, vapors with a boiling point above  $> 65^{\circ}\text{C}$ , mist, particles and other vapors. We have different types of filters available, suitable for half face masks and full face masks.











# Mechanisation & installations

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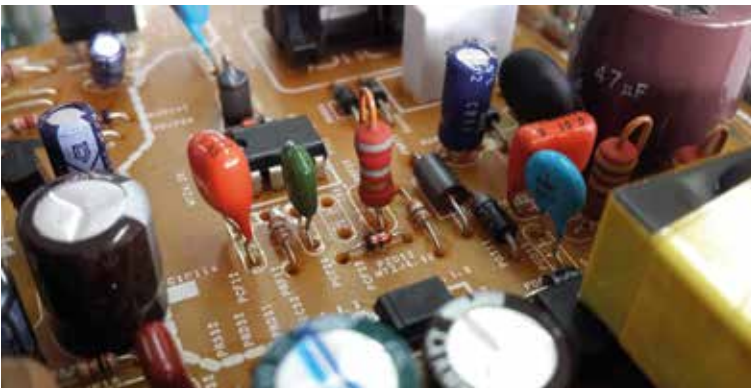
# Turnkey projects

**M**any growers opt for turnkey projects nowadays. We have the expertise to take on the central, coordinating role within a project. Right from the start we will make sure that the correct planning schedule is in place. While working with various partners, we will coordinate every step. You will have one contact person which will keep the communication line short.

## Advantages

- Competitive prices
- Lumpsum / contract base
- One billing account
- One contact person
- Available by phone during working hours in North-America and the Netherlands
- Decades of experience

**WE GET  
THINGS  
DONE**



## Electrical parts

Is your machine not working as it's supposed to be? Sometimes parts are in need of replacement. We are specialized in analysing your needs and will bring you a solution.

## PVC parts

PVC piping systems are used globally for the transport of water. The pipes and fittings distribute water under pressure. The main characteristic of these pipes is the long term resistance to pressure. Next to the pipes we are also able to supply fittings, valves and gauges.





## Ridder Growing Solutions

Ridder Growing Solutions produces intelligent, innovative and user-friendly total solutions. Ridder, former Hortimax, supplies solutions for growing technologies (climate, irrigation, nutrients, sterilization of water and energy management) and also for business (labor and productivity). Hortus is an official Ridder dealer.



**FertiMix Go!**



**FertiMix E Serie**



**VitaLite E4**





## Complete irrigation system

**W**ith the right irrigation solution you can reach a more consistent quality, increased yield and all resources will be better optimized. We are proud dealer of Rivulis their irrigation products, they create cost effective irrigation solutions and less labor intensive systems.

We are looking forward to tell you more! If you need any assistance with the design or layout of your irrigation or cultivation project, we are here to help.



### Online drippers

With over 40 online dripper combinations, we have you covered with the most comprehensive range of drippers available including variable flow rates, outlet options and Pressure Compensating and Non-Drip (PC/PCND) combinations.



### Irrigation sprinklers and jets sprayers

We offer a wide range of sprinklers and jets that deliver performance season after season with great yields, consistent quality and crop production efficiencies.





## Layflat and pipes

When you need a versatile and durable way to transfer water from your submain to your field, we have your irrigation system needs covered with our layflat, hoses, tubing and pipe engineered with the latest technology.



## Filters

Filters are the number one way to protect contaminants from entering your irrigation system. We offer a wide range of disc, hydrocyclone/sand separator, media, and screen filters. Every Rivulis filter is manufactured to provide the highest level of protection through durable construction and excellent filtration performance.

## Irrigation drip tapes and drip lines

Our extensive range of drip irrigation solutions features integrated emitters (drip tape) and molded emitters (drip line), along with pressure compensated, no-drain and anti-siphon models. Built to the highest standards of engineering and quality control, our drip line and drip tape ensure maximum resistance to clogging, maximum uniformity and maximum yield at harvest.



# Assimilation lighting

**A**ssimilation lighting in greenhouses and indoor facilities is one of the key factors for successful growing. At Hortus we have the knowledge, tools and products to support you throughout the entire process. Every grower cultivates in a different situation. With our experience and knowledge, we are able to advise you with the right type of light sources. The source and positioning of the fixtures determines the efficiency of the installation. We are confident we can ensure optimal efficiency, light-levels, light-uniformity and a return on your investment.

## Advising → Designing → Building

First of all, we identify the customer's correct requirements. After that we create a tailor-made lighting plan, during this process we will consider all aspects like light-levels, uniformity and the

construction. When the lighting plan is set, we discuss the best solution for your facility. We are able to offer HPS, LED and hybrid solutions from the best lighting manufacturers in the horticultural market.



### (Non)-Flowering bulbs

The LED (non) flowering lamps are designed to facilitate greenhouse photoperiod control. Photoperiod control allows growers to manage vegetative growth or rapid flowering throughout the year by extending or shortening daylength. It helps control plant growth so your production is ready at the time you want. We can offer different types of flowering lamps from several manufacturers.



### Spare parts

After a while the performance of your lamps is less effective as before. It's very important to check the lamp output every year. Less light means less yield! Hortus can take care of your lamp measurement and can also supply you with replacement bulbs when needed. We can supply 400W lamps single ended lamps to 1000W double ended lamps with competitive prices. With our know-how we can give you the right advice.



## LED watercooled

- Output up to 2.080  $\mu\text{mols}$  / 670W
- Voltage range 200V - 480V
- Compact
- Water-cooled
- Robust design
- High efficient
- Perfect LED-only or hybrid solution
- Easy to clean
- No loss of CO<sub>2</sub>
- Custom-made spectrums
- 5-year warranty

The only watercooled LED fixture in the market. Heat management is very important. This Orion fixture efficiently transports heat from the LED junction to the cool water. The water can be re-used in several ways. Because of the active water-cooling, there is less heat going into the greenhouse. This fixtures can be equipped with different spectrums, also according to customers wishes. Equipped with two different lightdistributions, narrow or wide, it is the perfect product for LED-only and hybrid (HPS+LED) systems.

## LED passive cooled

- Output up to 1.000  $\mu\text{mols}$  / 330W
- Voltage range 208V - 400V
- Optimal cooling
- No dirt-accumulation
- Lowest weight/performance ratio
- Intelligent auto-voltage ballast
- Optimal lightdistribution
- Different spectrums

New LED toplight designed for optimal output and efficiency, indoor and in greenhouses. The optimized housing design enables a maximized surface area and contact to cool air, achieving a lightweight and compact design. The optimal lightdistribution



makes this LED light a perfect fixture for LED-only and hybrid (HPS+LED) solutions. This fixture can be equipped with different spectrums, according to your wishes and needs.





## Ceramic Metal Halides 315/630

- 315W / 630W
- Voltage range 208-240V
- Wide spectrum, natural light
- High efficient
- UV-light and heat-radiation
- Longer lifetime comparing to HPS
- Separate (un)install of reflectors and lamps
- Different reflectors for hybrid or stand-alone
- 2 colourtemperatures for vegetative (4200K) and flowering (3000K) stage

CMH (Ceramic Metal Halides) fixtures are available in two versions, 315W and 630W. They produce a very natural wide spectrum including UV and heat-radiation which

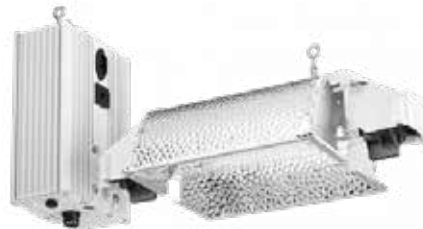


will increase the quality of the product. Comparing to LED they are still very efficient. Because of the different reflectors these fixtures can run stand-alone or together with HPS fixtures. The fixture is very compact and the reflectors can be easily and quickly mounted on and off by clipping.

## HPS Gavita

- 600W / 750W / 1000W
- Voltage range 120-400V
- Different reflectors for each situation
- Coolest HPS fixture in market
- Smart design, compact housing
- Highest efficiency
- Easy installation

Gavita HPS fixtures have proven their value, they are the best HPS fixtures in the market. The lamp has the highest efficiency, because of the housing they are the coolest fixtures available. This is very important for the operating life-time of the electronics and reduces faults. Available



in 600W, 750W and 1000W with different reflectors to be used in all kinds of situations and needs.

# Greenhouse logistics

**H**ortus is able to provide logistic solutions for greenhouse cultivators to support them in their daily activities, from the work in the greenhouse to a product handling system in the packing hall. The main target is to lighten the work in the horticultural industry, by developing sustainable solutions and find smart solutions for business automation. This will eventually lead to lower production cost and create a positive economic result.



## Electric greenhouse tow truck

The electric greenhouse tow truck provides a large pull capacity (4 tons) at high and low speed. The high-end machine is robust, durable and has a small turning radius. Greenhouse workers can easily hop on/off the vehicle. The tow truck can be operated by hand or programmed to stop at any desired place.



## Qii Jet

To give the grower the possibility to choose between an automated spraying machine with tank (Qii-Jet TAV) or an automated spraying machine with hose reel, Bogaerts greenhouse logistics developed the Qii-Jet HAV. The Qii-Jet HAV is a full-automatic spraying machine with automated hose reel. This machine is designed to be used in combination with a mobile spraying tank unit.



## Customized induction course

There are several different options which can be combined to form a customized induction course. The communication between the modules is done by PLC control. An induction wire is placed in the concrete path. This is the route that the automatic guided vehicle will follow. Very complex course branching, intersections and priority rules are no problem.



## Pepper handling system

The pepper handling system is a system that is used to automate the packaging and transporting of peppers. The automation can start in the greenhouse, or it can start in the packing hall. A pepper handling system is always custom made: depending on the needs/desires of the customer and the available space in the packing hall.

# Hygiene units

**S**ole and hand disinfection is very important before entering a greenhouse. The disinfection of the soles and hands happen simultaneous with these hygienic entrance systems. The unit has no down-time, since the disinfection bath is filled automatically. The machines are efficient in the use of chemicals, thus economical. The turnstile is released, after disinfecting the hands and soles to access the greenhouse.

## Sole cleaning, shaft cleaning and hand disinfection

The DZW-HDT-EDSW is a hygienic entrance that specialises in carrying out three tasks: disinfecting the hands, cleaning the soles and also cleaning the edges and shafts of boots. All this lets your colleagues efficiently pass through the cleaning process. The turnstile is only released after the hands have been disinfected. The disinfection process is sensor-controlled and uses a mist of soap and disinfectant.

### Benefits

- Four-year warranty on brushes
- Brushes suitable for HACCP/IFS
- Easy to remove brushes
- Disinfectant regulation with level indicator
- Adjustable two-sided chemical dosing



## Sole cleaning and hand disinfection

The DZW-HDT can clean soles and disinfect hands simultaneously. The soles are cleaned by the rotating brushes while the hands are moistened and sprayed all over with disinfectant. The DZW-HDT does all of this automatically. The hands are disinfected with the help of sensors. These sensors control the spray nozzles around the hands. Once the hands have been disinfected, the turnstile opens and the person can move through to the next area.

### Benefits

- Ergonomic design
- Brushes easy to remove
- Four-year warranty on brushes
- Adjustable two-sided dosing of chemical detergents
- Disinfectant controlled using level indicator







## Sanicare-EZR

The SANICARE-EZR is an ideal unit for a hygienic work process. Thanks to the sensors, there is no superfluous use of chemicals and/or time. By placing the sole of the shoe on the brush, while holding the handle at the same time, your shoes are cleaned quickly and efficiently. After dispensing soaps and washing your hands you will disinfect your hands in the disinfection cylinders. The turnstile is released only after the hand disinfection is completed.

### Benefits

- Chemical dosing on both sides of hands
- Release time of turnstile adjustable
- Hygienical construction and surface finishing
- 4-year warranty on brushes
- Sole and shoe side cleaning

## Sanicare-dyson with sole cleaning

The SANICARE-DYSON is the most complete unit for a hygienic work process. Thanks to the sensors, there is no superfluous use of chemicals and/or time. While the hands are washed, soles are cleaned. After this, the Dyson Airblade™ ensures that the hands are dry before they are placed in the hand disinfection cylinders. The turnstile is released only after the hand disinfection is completed.

### Benefits

- Adjustable two-sided atomization
- Level indication of chemicals
- Reduces contamination risks
- 4-year brush warranty
- No paper consumption



## Combi with sole cleaning

This COMBI is ideal for processing large numbers of people on a daily basis. Your personnel will pass the COMBI quickly and hygienically at the same time. This hygienic entrance is available as a double entrance or a double exit. Additionally, it is possible to connect the COMBI to a centralised chemical supply, to avoid people having to carry chemicals around the building.

### Benefits

- Large throughput capacity
- Low maintenance
- Disinfectant level indicator
- Easy to clean
- 4-year warranty on brushes

## Customized installations

We can also supply customized installations, feel free to ask about the possibilities.



# Growing systems

**O**ptimal cultivation starts with a growing system that is designed to your requirements. Together with our partners we are able to design high-quality and innovative cultivation systems. Some examples of our growing systems:

No matter your cultivation technique, we have an appropriate solution for you. Let us know how you cultivate and what the ideal starting situation is for your company. We're sure to find the best option. Our systems enhance your company's efficiency, quality, and crop management, and also help you to achieve the most from your crop. We are eager to look beyond the existing varieties. Below you will find examples of the most common systems within your crop. If you can't see your ideal system or if you have other questions, then please contact us.





## Shading screens

Traditional shading screens, cut the light irradiation. Our screens are specially designed for long lasting use under high mechanical stress conditions due to abrasion on tensile structures.



## Capillary matting

A capillary matting distributes and buffers water, evenly over pot plants. A functional and efficient operating capillary matting is essential for creating an appropriate end product during cultures.



## Pull-out canvas for crop rotation

Pull-out canvas is designed to pull-out plants with machines. The canvas transports the plants to a machine, which will destroy the old crops. Perfect for crop rotation!



## Netting

Support your flowers with our high quality netting. The net is UV protected and very strong under every condition. Many different species available.



## Watertanks

Pull-out canvas is designed to pull-out plants with machines. The canvas transports the plants to a machine, which will destroy the old crops. Perfect for crop rotation!

## Liners, covers and accessories for tanks

A wide variety of liners, covers and accessories for watertanks is waiting for your tanks!



# Machinery

we have a wide range of machines, such as conveyors, shredders, strapping machines, bucket filling machines.

## Potting machines

Potting machines allow growers to switch quickly between pot sizes, saving time and money. Our specialized team can make you an offer which is based on your specific needs.



## Hortus Spraypump

It's necessary to have the right pressure in your irrigation system. The amount you need depends on the size of the valve sections. With our spraypump you are able to water your crops with ease.

Specifications spraypump:

Automatic manual star/  
delta switch, Low  
pressure protection,  
Over pressure  
protection, Direct  
transmission,  
Pressure  
regulator.



## Conveyor

We offer conveyors for boxes, trays and pallets – all based on proven techniques with limited maintenance and a long service-life. Non-driven roller conveyors are used where possible, wherever employees have to be positioned. Driven conveyors are used where quite a distance has to be covered. Including controls, installation and service.



## Tilted plate separator

A tilted plate separator or lamella separator is used to separate solid particles from a water stream. These particles can settle by their size and weight. In the lamella separator, a tilted plate package is provided to promote a laminar, even flow of water and greatly increases the settleable surface through the lamellae. Solid particles settle and are collected underneath the plate package.





## Rolling bench systems

These systems offer numerous advantages compared to fixed table system or growing in the ground.

Some of these advantages summed up:

- Efficient handling of different plants
- Optimal space usage
- Improved airflow in the greenhouse
- Efficient plant irrigation
- Better control of crop quality



## Stringmachine

With a stringmachine vegetable growers are able to increase their efficiency during the hanging of twine. Affirm the machine to a pipe rail trolley and the cutting of twine will be a piece of cake. The stringmachine can cut up to 1500 strings per hour.

## Recirculation fans

### UL & CSA CERTIFIED

A too high humidity in the greenhouse, is a significant problem in horticulture. It increases the risk of illness and infection of your crops. With recirculation fans you can bring an air flow in the greenhouse. This gentle air movement doesn't just have a drying effect on the crops, which reduces the risk of illness; it also leads to an even temperature distribution in the greenhouse. This creates balanced growth for your crops. The fan speed can be regulated so you can control the air flow speed.



## Shredder

A shredder is a multifunctional crop rotation machine for removing various horticultural substrates (rockwool, perlite, coir, slabs), tomato leaf, groundcover and various crops (cucumber, tomato, strawberries etc.). The shredder rolls up the canvas on which the material is drawn to the machine. The material falls on a conveyor belt, which transports it into a container or on the concrete path. Instead of a containers, the material can also be driven out with a foliage fork.

## Paperpotmachine by PlantPaper

Revolutionary plug machine by PlantPaper! Our partner PlantPaper in Denmark has developed a new style and efficient machine to produce paperpots. This machine is able to produce two plug-diameters at the same time. We are ready to provide you with additional information and a complete and interesting offer for the machine, as well as for the PlantPaper which is 100% bio based and giving you optimum rooting results!



## Strappingmachine Hortus



Our very own strapping machine. This semi-automatic machine can be used in any sector and has very strong construction. Because of the the machine requires minimal maintenance. Since the strapping machine can be used to strap any packet size, it's fit to use in almost every sector. Furthermore we are able to supply you with strapping

band of excellent quality and for a competitive price.

Benefits strapping machine:

- Adjustable table height 735-835mm.
- Easy to move.
- Easy maintenance and strap coil change.
- Less energy consumption.

## Bucket filling machines

Bucket filling machines can speed up your flower processing management. Thanks to our wide range of bucket fillers, including a variety of optional extensions, you will always find the unit ideally geared to the processes in your business. Bucket fillers automate the de-stacking, filling and removal of buckets or containers, ensuring increased productivity.







## Bouquet machine

Creating hand-tied bouquets at full speed has always been a challenge. You need skilled employees and they need to be trained. Automating can be favourable for many growers. With this machine it is possible to create up to 1200 bouquets per hour. Improve your productivity and capacity with the hand-tied bouquets machine!

## Pipe rail trolleys



### Type 1

The Type 1 trolley is designed for crop cultivation in modern greenhouses, where crops are grown on considerable height (crop wire max. 4 mtr). The maximum working range of the trolley is 400 cm (230 max. platform height + 170 cm of the operators height). The structure of the trolley is made of steel, covered with anticorrosive coating. The trolley is equipped with an advanced control system. The undercarriage assembly is turned on manually.

### Type 2

The Type 2 trolley is also used in modern greenhouses. The maximum working range of this trolley is 462 cm (292 max. platform height+170 cm of the operators height). This trolley has the same coating as Type 1. The double scissor-type lifting assembly for the work platform is powered by two hydraulic cylinders. The trolley is equipped with an advanced control system. The drive unit features a brake that prevents uncontrolled stopping of the trolley.





# Empas

**E**mpas is the global specialist in spraying equipment for horticulture. Empas contributes to a healthier crop by offering horticulturists practical, user-friendly, customer-specific solutions for the application of plant protection products and for cleaning.



## Wheels

In addition to the Empas spraying trolleys / spray trucks we can also supply loose Empas wheels



## Spraylance 3 nozzles

We can supply many Empas accessories, this spraylance is one of them.



## Sprayboom

Empas spraying equipment enables you to easily apply crop protection agents, mist or clean surfaces.



● Georgia 600



## Spray gun

Empas motorised barrel sprayers are generally used in combination with a spraying boom or a spraying mast – but a spraying robot or a spray gun are also options, of course.

## Kit 295

Do you prefer a customised Empas product? We are happy to provide you with a tailored solution.

## Nozzles

Empas stands for simple machines, which are practical and always safe. This is precisely why we are a proud dealer of their products.



● Maryland, 2000 ltr



● Georgia 1000 ltr





## Aquajet

**T**he AquaJet is especially designed to get your greenhouse in a shiny and fresh state for the next cultivation season. While moving over your pipe rail system, the machine cleans the inside of your greenhouse quickly and thoroughly. You can apply cleaning or disinfection agents and then rinse it with a high-pressure water beam that is fixed to the AquaJet. The machine works without cables, has a hydraulic drive and can be delivered with a stepless telescopic boom or an optional module to clean gutters. Use the AquaJet in combination with, a natural product like Organic Clean XL to achieve the best possible result.

In general, most growers can clean about 2,47 acres (1 ha) per day (8-9 hours work). This is if you clean the top and side of the greenhouse. Usually you spray out the dirt out after 10-15 minutes. This is ineffective, HSI sells Organic Clean XL which doesn't have to be rinsed. That means less labor, because you pass through an area once instead of twice. Dependable on the contamination and the cleaning of your gutters, it will take even more time.



Maintenance frequency Aquajet	Action points
Before each use	<ul style="list-style-type: none"> <li>· Check oil level in water pump and hydro oil tank</li> <li>· Check for oil or water leaks</li> </ul>
After each use	<ul style="list-style-type: none"> <li>· Clean filter (holder) with clean water</li> <li>· Rinse the Aquajet for at least 15 minutes with clean water</li> <li>· Clean out the Aquajet completely to prevent aggressive agents from eroding the materials</li> <li>· Never spray directly on control panels</li> <li>· Remove cord, plastic etc. from the drive wheels</li> </ul>
Every 50 operating hours	<ul style="list-style-type: none"> <li>· Check pressure in the accumulator on the water pump. This should be 7 bar-102 PSI</li> <li>· Rinse the Aquajet for at least 15 minutes with clean water</li> <li>· Clean out the Aquajet completely to prevent aggressive agents from eroding the materials</li> <li>· Never spray directly on control panels</li> <li>· Remove cord, plastic etc. from the drive wheels</li> </ul>
Every 300 operating hours	<ul style="list-style-type: none"> <li>· Replace engine oil from the water pump (20W40)</li> <li>· Check the suction/discharge valves, and valve cover and replace them when wear/impact visible</li> </ul>
Anually	<ul style="list-style-type: none"> <li>· Check the diaphragms of the water pump and replace them in case of visible wear</li> </ul>



## Top Cleaner

The Top Cleaner is a top model greenhouse deck cleaner; a high-quality roof washer suitable for all Venlo greenhouses. Moreover, the machine is environmentally friendly because it only uses water to clean the glass. The Top Cleaner is also equipped with all imaginable safety devices.

# Certified suppliers

Hortus works with a wide range of certified suppliers such as:















# Catalogus

[www.hsibv.com](http://www.hsibv.com)

## Decades of experience in horticulture

Hortus Supplies International offers a full range of requirements to grow all kinds of crops in horti- and agriculture. The Aalsmeer, The Netherlands based company has a team of 30 passionate people. All of them have their own expertise. We have a specialized team for all your questions. With our practical knowledge

and experience we are able to advise you on all your needs. We analyze your inquiries, advice where necessary, and provide a custom-made offer, which meets with your requirements. This will optimize the processes and growth of your crops.

