

The background of the entire page is an aerial photograph of a vast, lush green agricultural field. The crops are arranged in dense, straight rows that stretch towards the horizon. In the middle-right portion of the image, a tractor is visible, pulling a long spray boom that extends across the field. The tractor is moving away from the viewer, leaving a trail of mist or spray behind it. The lighting suggests a bright, sunny day, with the green of the crops appearing vibrant and saturated.

# INNOVATIVE AGRICULTURAL SOLUTIONS

2021 EDITION







# About HGWWT

Born from the need to find orchard supplies for Heartnut Grove -the orchard, an evolution of opportunity took place back in 2002 that transformed a small orchard business into a supplier of agricultural products. In no time, the business continued to grow and expand as it has ever since. The product range, now much more broad and diverse, offers a selection of quality products across dominant categories like horticulture, irrigation, equipment and silage. We sell across Canada; into the U.S.; Mexico and other parts of the world. In 2019, the HG (Heartnut Grove) was acquired by Water Ways Technologies (WWT).

WWT is a publicly traded stock on the TSX. Water Ways Technologies is a Canadian company that does business and has offices in various countries across 5 continents. Its greatest strength is in irrigation, boasting countless irrigation and greenhouse projects around the globe. Here in Canada, we are now known as Heartnut Grove -WWT. Our operation remains the same, continuing to serve the existing customer relationships that we had established and now coupled with the synergies of our parent company and their experience, we have, along with our customers, seen continued growth and even better future.

Even with our growth, we are still a very customer-centric business that has good trusting customer relations, selling good quality products and working to improve farming operations for everyone.

**WWW.HG-WWT.COM**

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**Phone: 519-264-2708 | Fax: 519-264-2945 | Email: [info@HG-WWT.com](mailto:info@HG-WWT.com)**





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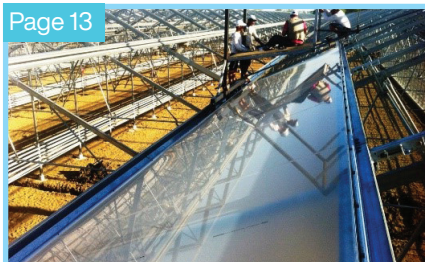
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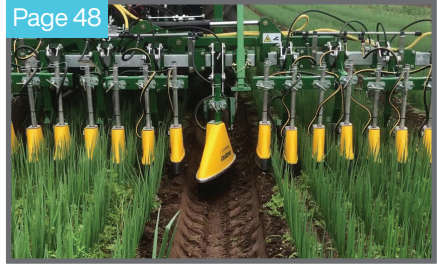
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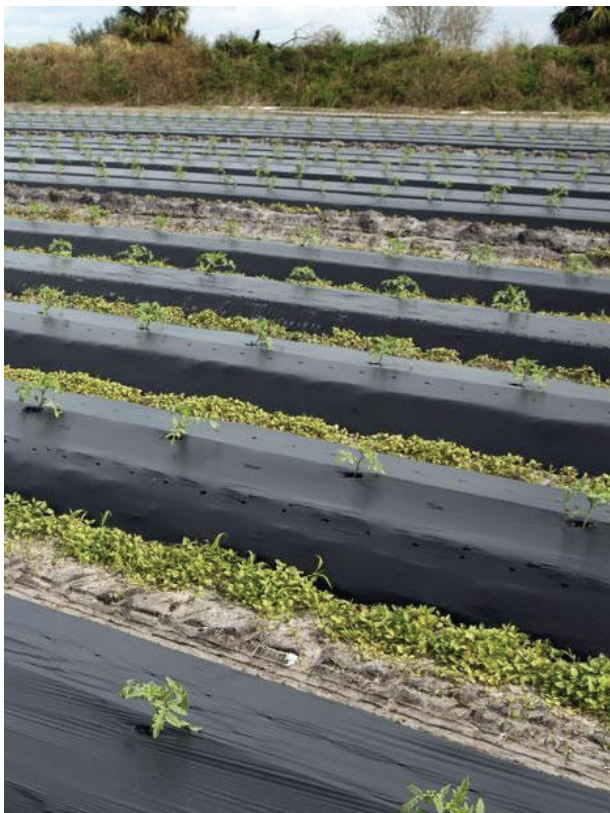
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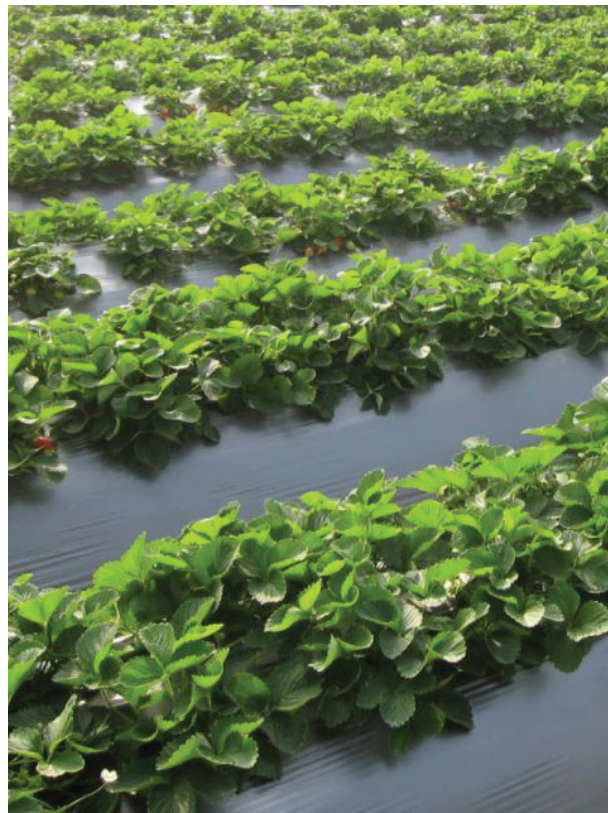
# Conventional Plastic Mulch



## Micro-embossed Plastic Mulch

This true cast process imparts a deeper embossing and material characteristics more compatible with farm mulch film application. The square taffeta pattern is almost identical to conventional mulch but smaller. The micro-embossing allows the film to stretch and have memory so that it lays easily and hugs the bed tightly. This high memory film comes back to its original shape after periods of heat have caused it to expand, maintaining a tight cover.

Sizes: range from 36" wide -60" wide in a variety of thicknesses. Roll lengths: available in 4,000' and 6,000' lengths. Colours: black, black/white and clear.



## Smooth Plastic Mulch

Smooth Plastic Mulch suppresses weeds, is flexible and stretchable, reduces evaporation, and increases soil temperature, which all contributes to earlier and higher yields. It's known to be more durable and easy to install. Smooth film will conform to both flat and raised beds. Strong enough for either double cropping in the same season or possibly over two seasons. Easy field removal.

Sizes: range from 48" wide -60" wide in a variety of thicknesses. Roll length: 4,000'. Colour: black.



# Degradable Plastic Mulch

Degradable mulch is a significant evolution in mulch film applications. Degradable mulch has the potential to be a sustainable technology when it affords equal benefits to conventional plastic mulch and because:

- reduces costs for labour and disposal
- reduces landfill waste
- completely biodegrades
- causes no harm to soil ecology or environment



## Eco-One OBDegradable Plastic Mulch

Eco-One OBDegradable Plastic Mulch provides the strength required to ensure a tight fit over raised and flat beds, while improving growing conditions. It also retains all the benefits of regular mulch, boasting increased yields, easy installation, earlier harvest, soil warming, weed control, and moisture retention. Oxo-biodegradable plastic warms the soil, leading to much earlier crops. It also keeps the weeds down during early emergence and plant development.

Degradation begins as soon as the film is exposed to the elements. It continues to break down until the microbes consume Eco-One OBD degradable film furthering its existence into H<sub>2</sub>O, CO<sub>2</sub>, and biomass.

Eco-One OBD Degradable film is the most economical degradable in the market saving the farmer expense, time, and is convenient to use.

Sizes: range from 48"-60" wide in a small range of thicknesses. Roll lengths: available in 8,000' and 9,000' lengths. Colours: black and clear.



# Degradable Plastic Mulch



## Samco Degradable Film

Samco films provide 3 essential functions. At the time of laying down the film the pinholes allows trapped air under the film to escape keeping the film tight to the soil. During the first 6 weeks of plant growth the pin holes allow high temperatures out on warm days and keep the plants in an ambient environment for maximum growth. In later sown crops the pin holes weaken the film allowing the plant easy access through the film while maintaining soil temperature.

Size: Roll Length: 10,000' Roll width: 54" (custom fit for Samco machines)

- **Yellow film** is used for rapid degradation and was designed to warm the soil and the plant for a short time. This film is designed to be used for planting various crops such as sunflower, soya and peas.

- **White, Green and Blue** are designed for maize corn. Their compositions give them each different rates of degradation speed. The goal is to optimize the greenhouse effect and nurture the maize corn seedling in a warm and humid atmosphere.

- **SAMCO MD** slots ensure aeration by many small slots, 2cm in size above the planted maize. The slots allow more air circulation around the plant at the early stages. It is suitable for all seedlings in the geographical areas where the outside temperatures do not exceed 30°C during the first weeks after sowing.

- **SAMCO TD** slots provide aeration by slots 9 cm in length above the planted rows. Sustained ventilation around the plant is assured due to the large movement of air. It is suitable for all late planting where the risk of frost is minimal. The plant breaks through the TD type film much easier than MD and Pin Hole. The greenhouse effect can reduce evaporation.



# Degradable Plastic Mulch



## Eco-Light Reflective Plastic Mulch

The reflective properties of aluminum faced plastic has proven to organically control several species of insects. Using Eco-Light Reflective Plastic Mulch aides growers to harvest higher quality, marketable fruit and vegetables.

Features:

- Redistribution of sunlight
- Overall increase in natural ripe fruit colour
- Reduction of weed competition
- Increase in photosynthesis and thereby increased sugar content
- Helping moderate ground temperature
- Uniform ripening which means less frequent picking throughout the orchard
- Increased crop value when bringing fruit to market
- Additional use by allowing covered bins to keep cooler longer



## Mini Tunnel Plastic

Low tunnels are a great way to provide warmth to early planted crops, protecting plants from harsh winds and brisk temperatures. It helps to promote and retain heat, essential to crop development. Enjoy the benefits of mini tunnels as crops come on more rapidly, allowing an earlier harvest and first to market pricing. Installed with a tunnel layer onto wire hoops, plants are safe with ventilation on this film.

*Specs: 6mil 72" x 3,300' 500 holes/m2 Colours: clear or green*



# Row Cover & Accessories



## Agribon

Using Agribon® helps to increase quality and earlier production. Agribon® is a non-woven fabric cover, ultra-light and resistant to exposure to the environment; it allows light, water and air to pass through and is reusable.

Agribon® comes in a vast array of sizes that are common to field or handling areas as well as various densities, providing a range of very light weight cover to heavier over-wintering fabric for certain crops.

*Sizes: Each thickness comes in a variety of sizes both in length and width.*

**AG-19** is a medium weight cover that provides up to 4 to 6°F frost protection for sensitive ornamentals. 70% light transmission. .9 oz./sq. yd.

**AG-30** is a light weight cover that provides up to 4°F+ frost protection for valuable, frost sensitive perennials and sensitive vegetables. 85% light transmission. .55 oz./sq. yd.

**AG-50** is a heavy weight cover that provides up to 6 to 8°F+ freeze protection for sensitive ornamentals and emergency freeze protection to foliage nursery stock, strawberries. 50% light transmission. 1.5 oz./sq. yd.

**AG-70** is an extra heavy weight cover that provides up to 8°F+ of freeze protection for foliage, nursery stock and ornamentals. 30% light transmission. 2.0 oz./sq. yd.



## Grow Guard

Gro-Guard UV protects crops from frost, insects and extreme changes in weather and heavy rain. This is a seamless fabric.

*Sizes: Each thickness comes in a variety of sizes both in length and width.*

**GG-20** is excellent for Insect and Pest Control because it is lightweight fabric, providing 85% light transmission 5° F of freeze protection. 6 oz/sq yd.

**GG-40** is an intermediate weighted fabric that that offers added freeze protection to 10°F and 60% light transmission. 1.2 oz/sq yd.





## Typar

A DuPont value product, known by its branded name, Typar T-518. Typar floating row covers are heavy and a strong cover, giving reliable frost protection and still transmits plenty of light. Excellent for all crops and seasons.

*Specs: 1.25 oz/sq. yd. cloth weight A variety of sizes both in length and width are available.*



## Hoop Wires

Wire hoops are an essential accessory in many aspects of farming operations. Hoop wires are almost always used with floating row cover to assist in the suspension of covers. Wires are made of 3/16" heavy duty high tensile steel and are available in different sizes for pre-curved wires and one size of straight wire.

*Sizes: 64" straight wire 100/ bundle 76" straight wire 100/bundle 64" pre-arched wire 100/bundle.*



## Green 15 year UV Protected

Our Green, heavy-duty bags are created to last. Ideal for sand or gravel filler. They are UV protected and have a 15 year warranty. 250 bags per case.

*Sizes: 27cm x 120cm and 27cm x 70cm -each with a tie string and handles*

## Orange Utility Woven Bags

Package heavy parts and supplies or use as sand-filled flood barriers. Woven polypropylene resists punctures and tears. Maximum UVI protection - lasts 1,600 hours in the sun. Dense, tight weave holds almost any dry substance. Hi-vis bags for highway barricades and outdoor use. 100 bags per case

*Sizes: 14" x 26" -each with a tie string*

## Black Poly Anchor Bags

These UV treated anchor bags can be filled with sand, dirt or gravel and used to secure row cover. For plastic bags, use cable ties to close.

*Size: 6mil Black Plastic 12" x 24" 250 bags per case*



# Netting



## Thrips Netting

Our thrips netting is made from high-density UV-protected polyethylene for many years of service. This product provides crop protection against thrips and all insects. It also provides protection from hail, wind and birds. Thrips netting significantly reduces or eliminates the use of chemical pesticides and is great for organic growing.

Net specifications:

- Polyethylene, UV protected 3% (up to 5 years against UV breakdown)
- Available in rolls of 4 meter x 50 meters, and 4 meters x 100 meters
- 125 grams per square meter
- 50 x 25 filaments per square inch
- Mesh size .29mm x .8mm
- 20% shade factor
- Colour - Semi transparent white



## Hail/ Insect Netting

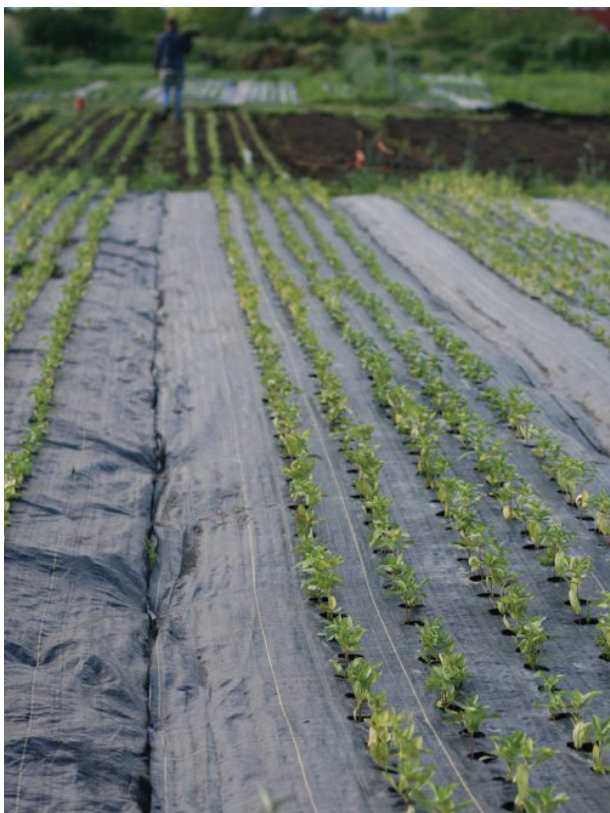
This durable netting is ideal for organic gardening and organic farming, providing bug protection without pesticides. Our insect/ hail netting provides protection against insects including Japanese beetles, stink bugs and grasshoppers, as well as birds and hail - all in one application. It can be used as floating row crop covers or hoop netting, cherry tree cover, fruit tree cover. These nets are made from high-density UV protected polyethylene for many years of service. Reinforced edges with button holes for tie down or joining every inch.

Our insect/ hail netting is made from high-density UV-protected polyethylene for many years of service. Our insect/ hail nets also serve multiple uses, all in one application:

- Hail netting
- Insect protection net
- Japanese beetle net
- Stink bug net
- Bird barrier net
- Grasshopper net
- Floating row crop covers
- Hail protection for orchard crops
- Hoop netting
- Fruit tree covers



# Ground Cover



## Woven Ground Cover

Our Best — Sunbelt Woven Ground Cover consists of 3.2 oz. polypropylene, which resists tearing, puncturing and weed penetration. It is approved for most government weed control applications. Sunbelt is ideal for greenhouses, outdoor displays and as a weed barrier for plantings without topical coverings where a weed-free environment is a must. DeWitt Sunbelt is striped every 12 inches to aid in plant alignment and is UV-stabilized to last even in direct sunlight. Most often, ground staples are used to secure and/ or overlap runs of ground cover, whether in a greenhouse or in the field.

*Sizes: All rolls (unless by custom order) 300' length Widths are available in 3', 4', 6', 10.5', 12.5', 15.5' Colours: black or white.*



## Ground Staples

Steel round staples for covers and plastic.

*Sizes: Heavy Duty 8 gauge 8" x 1" 500/ case and Standard 6" x 1" 1,000/ case*



## Utility Gloves

Enjoy the comfort and flexibility of this pliant combination of lightweight micro foam coated with the gripping power of Nitrile, an oil resistant copolymer dip.

Features: Micro foam Nitrile coating, 15 gauge liner for lightweight comfort, Ultra cool, breathable coating keeps your hands cool and dry, Low lint and non-marking design reduces the risk of material contamination.

Recommended for: Picking, Packing, General precision work, Assembly.



# Greenhouse Covers & Accessories



## Palring

Palring provides a high quality woven poly for greenhouse coverings for the top and the sides. It's tear resistant and long lasting coated woven polyethylene cloth. Palring covers come with UV protection and contain IR additives to keep the foliar temperature higher in the greenhouse during the cold nights. We can arrange for customized dimensions for easy installation.

*Sizing: please call for details.*



## Poly Plastic

Our standard greenhouse film comes in 6 ml and 8 ml thicknesses for extra durability, Excellent light transmission, Four year warranty against UV degradation, and easy installation.

*Sizing: please call for details.*



## Online Button Drippers

TYPE	PC / PCND/ NON-PC
Flow rates (gph)	0.13 – 6.6
Drippers spacing (inches)	8" – 60"
Working pressure (psi)	8.5 – 50
Outlet connection	TOP / ANGLE/ SIDE
Connection type	BARB / CONIC
Suitable pipe diameter (inches)	1/2" – 3/4"







# Growing & Drainage Systems

Mapal hydroponic products serve growing solutions for vegetables, cut flowers, strawberries and other berries, herbs and cannabis. As a leading supplier of extruded polypropylene Agro products, Mapal uses state of the art technologies to offer innovative solutions.



## Drainage gutter

Mapal has few systems to collect drainage from grow bags, their main product is Mapal 6.5-22-6.5 drainage gutter plus its 200 mm width spacer.

- Alternative drainage gutters are available according to the growers needs.
- Wide selection of spacers used in a wide range of cultivations.



## Trough system

- Mapal has few trough systems available to be used by the growers
- In all the trough systems the grower can easily collect and recycle the drainage water and nutrients.



## Strawberries hanging growing system

Strawberry Hanging System in Containers  
The system is composed of 3 main parts:

1. Growing container: The polypropylene containers are resistant to all methods of sterilization including steam. This container is filled with bulk coco-peat fiber
2. PVC gutter for collecting the irrigation water drainage: The PVC gutter is produced with recycled materials. The gutter comes in different lengths according to the growers requirements (Most gutters are 5.85 Meter length).
3. A drainage collecting end system: The grower needs one drainage end system for every row.

# Substrates

We are offering a wide range of coir – coco peat substrate for Hydroponics growers and nurseries. Our coir is used worldwide as a growing media for various hydroponics crops in nurseries, greenhouses, plant propagation, and bedding plants.

Our company supplies a whole range of Coco coir products including Growbags, 5 kg bales, our exclusive OpenTops, Blends and other Coir based products.

In order to guarantee high quality and first class products we maintain a very strict control on our supplier's production procedure in its factories. Experience and reputation backed by quality certified by international agencies (ISO 9001-2015 & OMRI).



## Coco-coir bales

5KG Bales or 650gr bricks for mixing blends  
compressed volume (before hydration) – 9 liter  
uncompressed volume (after hydration) – 65-70 liter (loose coco-coir).



## Grow bags for vegetables and strawberries



## CANNAMIX open tops for cannabis



## Open Tops for Blueberries growth



# Drip Tapes & Drip Lines



## Drip Tapes

Diameter (Inch)	5/8" – 7/8"
Wall thickness (Mil)	4 - 15
Flow rates (GPH)	0.13 – 1.34
Drippers spacing (Inch)	4" – 16"
Working pressure (PSI)	8 - 15
Roll length (Feet)	1500' – 13,000'



## Non-PC Driplines

Diameter (Inch)	5/8" – 7/8"
Wall thickness (Mil)	30 – 47
Flow rates (GPH)	0.6 – 2.11
Drippers spacing (Inch)	6" – 39"
Working pressure (PSI)	15 – 50
Roll length (Feet)	1000'



## PC Integral Driplines

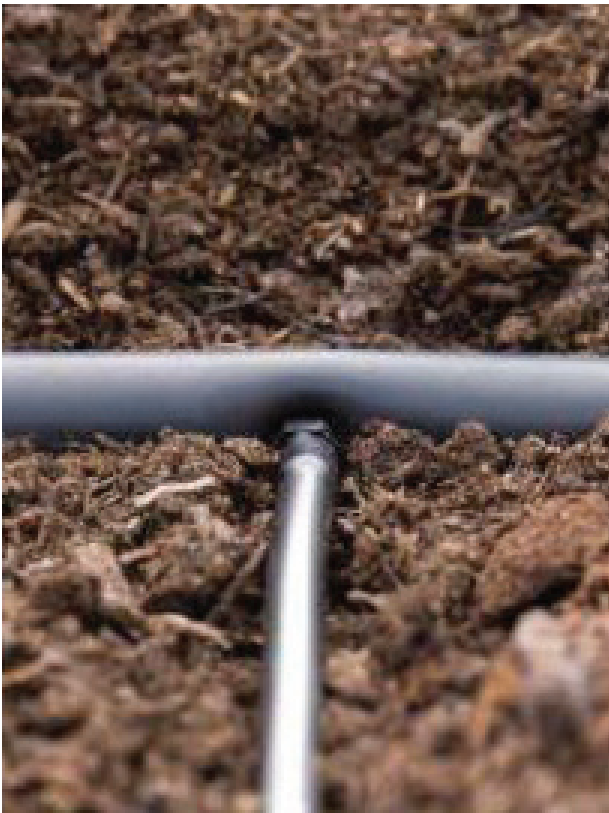
Diameter (Inch)	5/8" – 7/8"
Wall thickness (Mil)	35 - 60
Flow rates (GPH)	0.17 – 0.99
Drippers spacing (Inch)	6" – 39"
Working pressure (PSI)	15 – 50
Roll length (Feet)	1000' – 1500'

# Blank Tubing & Connectors

High quality polyethylene tubing from two major brands is ideal for use in drip irrigation systems for landscapes and agriculture. It can be used to connect any drip/micro device to the water supply lateral.

Also can be attached to the outlet of a buried emitter to bring water to the surface or can be used as a leader to bring water from buried hose to a surface emitter or micro sprayer.

All polyethylene (PE) tubing is known for having excellent environmental stress crack resistance.



## Blank Tubing

Specs	Tube I.D. Size
Hose Diameter	1/2"-1"
Roll Length	1,000'
Pressure (psi)	54-78



## Drip Tape Connectors

Drip tape connectors are the last point in the transfer of irrigation water that is the conduit between various options of header lines or the means to mend or reconnect drip lines together. Reliable connectors are used to ensure water delivery without leakage.



## Emitter Tubing & Blank Tubing Connectors

Joint and junction connectors complete the job with confidence using Irritec's Perma-loc connectors. Count on a solid seal to all your connections with a wide assortment of connectors suited to your needs in various sizes.



# Pipe & Fittings

Type	Mechanical, flexible pipe, camlocks, dripline fittings, compression, micro fitting
Metrials	pvc, ldpe, hdpe, pp, nylon, metal, glavanized, acetal, pvdf
Connections type	thread, flange, victaulic, barb, nut, fast ring, twist lock, cement
Available diameters	1/8" – 16"
Working pressure (psi)	0 - 230



## Flexible Pipes

diameter (inch)	1.5" – 8"
wall thickness (mil)	37 - 118
working pressure (psi)	22 – 150
outlet spacing (inch)	24" – 80"
roll length (feet)	300'



## PVC Pipe

Sub-surface systems use PVC pipe to transfer irrigation water from the water source to hydrants or risers in various zones on a farm. PVC is a reliable, durable and safe means to move water and higher flow rates that need to travel significant distances, requiring higher pressure to do so. Depending on the project, we use SDR26, SDR35, SCH40, and HDPE pipe to service the needs of the job.

Sizes: 1/2", 3/4", 1", 1 1/2", 2", 2 1/2", 3", 4", 6", 8", 10", 12"

**We design and install sub-surface systems. Call to speak to us about how we can help you plan for water distribution for your operation.**

## PVC Fittings

We stock a full range of fittings to assist in connecting pipe and also to make connections alternate fitting connections between pipes and other substrates such as aluminum camlocks, ventilation, gauges and valves.

# Metal Fittings



## Camlocks

We carry a significant selection of aluminum camlocks where any connection can be made to link hoses or systems or machinery or pipeline and more. These versatile fittings allow for quick connection and disconnection and are available in a number of diameters to suit your needs.

*Sizes: 2", 3", 4", 6" Styles: male adapter x FPT, Hose Barb, MPT / female coupler x FPT, Hose Barb, MPT*

## Clamps

Our selection of clamps is vast in range. Choices of standard gear clamps or banded rebolt clamps to serve every need.

*Sizes: 1/2", 3/4", 1", 1 1/2", 2", 2 1/2", 3", 3 1/2", 4", 6" gear clamps and 2", 3", 4", 6" rebolt clamps*



## Metal Fittings

As it relates to connections between hoses or an adaptation from hose to a threaded component or threaded PVC fitting, these aluminum hose menders and king nipples are a reliable asset to complete the job without worry. Available in 2", 3", 4".



## Foot Valves

Count on your foot valves to retain water in the line and minimize the effort of having to completely prime the suction line before operating the pump. Available in 2", 3", 4".



# Header & Transfer Hose



## Layflat Hose

Sun-Flow is a brand, renown in the agriculture industry as the “go to” choice for layflat hose. We carry a full array of sizes, available in a selection of wall thicknesses that can handle water pressure outputs for both high and low flow rates.

Hose Diameter	1.5" - 6"
Roll Length	300'
Pressure (psi)	42 - 150



## Black Oval Hose

Large diameter sizes for sub-main and mainline applications as a cost-effective alternative to PVC. Smaller diameters can be used in lateral run applications on permanent crops. When pressurized, black oval hose becomes round. The unique oval configuration allows you to reduce storage space.

*Hose Diameter/ Length: 1.5" x 150', 1.5" x 600', 2" x 150', 2" x 450', 3" x 200', 4" x 130'*

Hose Diameter	1.5" - 6"
Roll Length	50'-300'
Pressure (psi)	42 - 150

# Subsurface Irrigation

Committing to a sub-surface irrigation systems is sometimes met with scepticism due to fears of underground leakage of mainline connections. The most reliable solutions give growers the confidence they need to take that step and invest in a long term trustworthy system. The compression fit Speed Riser technology delivers water to your lateral lines without leakage.



Irrigation applied underground eliminates surface water evaporation. Compared to evaporation as high as 45% with sprinkler irrigation (Measurements of evaporation during sprinkler irrigation, University of Southern Queensland, 2012)

By applying water directly to the plants no water is being applied to the interrows. Less water in the interrows or on the surface means fewer weeds, and less costs (herbicides) to eradicate the weeds.

When a drip lateral is buried 30 cm, roots need to 'chase' the water. This leads to a very healthy root structure that penetrates deep into the ground as opposed to concentrating on the surface.

Sizes: Riser Tubing 25 available in lengths of 24", 36", 48", 60"

When drip laterals are buried, field access is easy as SDI eliminates the need for irrigation pipes on the surface. For harvesting of nuts where mechanical sweepers are used, any irrigation on surface can be a problem. This problem is eliminated with SDI.

Furthermore, you can irrigate right up to harvest without the normal risk of bogging in crops such as sugarcane and alfalfa.





# Fertilizing Solutions Single Channel



## Hydraulic Injector (Tefen / Dosatron)

Type	Proportioning dosing injector
Working pressure (psi)	3 – 116
Flow rate (gph)	5 – 6600
Proportioning range (%)	0.1% - 5%

A water driven proportioning injector, no outside power supply needed. Units include wall mounting bracket, suction tube connectors, 7' of 3/8" pick-up/suction tubing with foot valve strainer and a replacement lip seal kit.

*Specs: pressure range: 2.9-120psi induction ratio: 1:111-1:1000, 1:50-1:500, 1.25-1:250*



## Venturi Injector (Mazzei)

Materials	PP / PVDF
Working pressure (psi)	5 - 120
Flow rate (gph)	0.17 - 530
Inlet/outlet id (inches)	3/4" – 4"

Mazzei injectors are high efficiency, Venturi-type, differential pressure injectors. A pressure difference between the inlet and the outlet of the injector creates a vacuum inside the body, which results in suction through the suction port. The suction can then be used to inject and mix fertilizers and water treatment chemicals into the water. Mazzei injectors are trouble free because there are no moving parts, and long life because they are molded from chemical resistant polypropylene.

*Sizes: 3/4", 1", 1 1/2", 2", 3", 4" injectors*

# Fertilizer Injectors Multi - Channel

Green JET is a fully configurable, cost-effective fertilizer/acid dosing unit system that precisely and accurately injects fertilizers according to field/plant requirements.

Requiring minimal capital investment and operating in any site conditions, Green JET optimizes the main irrigation lines' available water flow rate and pressure to ensure maximum efficiency.

Green-Jet Fertilizer injectors perform real-time monitoring and control, while providing the best possible plant nutrition under any growing conditions. These units deliver the most accurate fertigation possible by:

- Controlling the amount of fertilizer relative to the amount of water
- Simultaneously measuring and adjusting the EC PH values to the exact level the plant requires for optimal growth
- Flexible/modular fertigation system
- Suitable for soil and soilless media crops
- Minimal capital investment
- Reduced water, fertilizer and energy consumption
- Very high level of EC and pH control
- Nearly maintenance-free Venturi operations – No moving parts



## Fertilizing Station

Working pressure (psi)	30 – 120
Flow rate (gph)	13 - 265
Fert. Channels	1 - 8





# Pressure Control Valves



## Mechanical Valves

Type	Gate / butterfly / ball
Size (inch)	2" - 24"
Pattern	Globe, straight
Construction materials	Metal, bronze, reinforced nylon (nr-010)
End connection	Flanged, threaded, grooved
Max. Working pressure (psi)	230



## Control Valves - Metal

Size (Inch)	1" - 12"
Pattern	Straight, Angle, Globe
Construction Materials	Metal, Bronze
End Connection	Threaded, Flanged, Grooved
Max. Working Pressure (PSI)	230
Applications Types	Pressure Reducing, Pressure Sustaining & Relief, Flow Rate Control, Float Level Control, Altitude Control, Quick Reacting Pressure Relief



### Control Valves - Plastic

Size (Inch)	3/4" – 6"
Pattern	Straight, Angel, Globe, Oblique (all) , Angle (3",3"L ,4"),Tee (3")
Construction Materials	Plastic, Black nylon glass filled , Polypropylene
End Connection	Thread/Flange/PVC Weld/ Grooved
Max. Working Pressure (PSI)	145
Application Types	Pressure Reducing/Sustaining, Quick relief , Level control ,Flow control
Typical Applications	Pressure Reduction for Marginal Plots, Irrigation Machine Sprinkler Flow Control, Single Sprinkler Flow Fixation



### Back Flush Valves

Size (Inch)	2" – 4"
Pattern	Globe, Straight, Angle
Construction Materials	Metal, Glass-Reinforced Polyamide (GRP)
End Connection	Grooved / Threaded / Flange
Max. Working Pressure (PSI)	230
Typical Applications	Filter Back-Flushing



# Water Control Management



## Water Meter

Size (Inch)	1/2" – 20"
Pattern	Straight
Construction Materials	Metal, Bronze, Copper
End Connection	Threaded
Max. Working Pressure (PSI)	360
Typical Applications	For main supply lines, agriculture, industry and municipal



## Vents/Air Valves

Our assortment of irrigation ventilation units include air & vacuum release valve vents, continuous air valve vents, and combination air valve vents. The air vents are recommended protection for drip and micro irrigation systems, helping to maintain proper hydraulic dynamics in the system design. Each type of air vent is designed for a specific function. The air and vacuum release vent is designed to allow large volumes of air to exit during start up and enter during shut down of an irrigation system. The continuous air vent allows small amounts of trapped air in a pipeline under pressure to be released. The combination air vent does both applications.

Size (Inch)	1/2" – 3" (Plastic) 2" – 12" (Metal)
Construction Materials	Reinforced Nylon, Polypropylene, GPR, Metal
End Connection	Threaded, Flange
Max. Working Pressure (PSI)	145 - 230 (Plastic) 145 – 580 (Metal)
Typical Applications	Agricultural and landscape irrigation laterals
At pump stations Downstream and upstream of shut-off valves, On long constant sloped pipeline segments, At peaks along the pipeline	Pressure Reducing/ Sustaining, Quick relief , Level control ,Flow control
Industrial & municipal use	Pressure Reduction for Marginal Plots, Irrigation Machine Sprinkler Flow Control, Single Sprinkler Flow Fixation



## Pressure Regulators

Our Senninger pressure regulators operate at a constant factory preset. They are non-adjustable offering stability without fluctuation.

*Specs: pressure settings: 10, 15, 20, 25, 30, 35, 40, 50, or 60psi flow ranges: 20 – 100gpm. Inlet/outlet sizes: 1/2" - 3"*



## Pressure Gauges

Our 2.5" faced pressure gauges have a 1/4" bronze bourdon tube neck and are glycerine liquid filled (wet gauges) or dry gauges.

*Sizes: 0-15 psi, 0-30psi, 0-60psi, 0-100psi, 0-160psi*



# Manual Valves

Important for flushing, pressure relief, zoning and water diversion, valves play a key role in water systems. There are a number of valve solutions and sizes available. Sizes: 3/4", 1", 1 1/2", 2", 3", 4"

## PVC Ball Valves

Solvent weld full port PVC ball valves are designed for use with SCH40 or SCH80 PVC pipe fittings. For cold water applications only. Features easy one quarter turn operation.

- White colour, EPDM seats
- Full water flow



## Brass Ball Valves

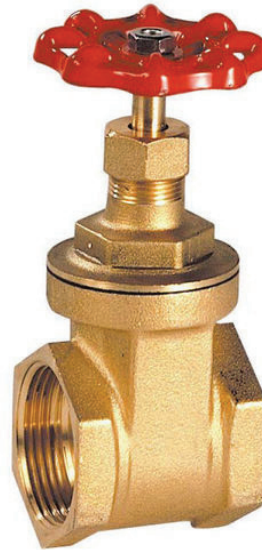
Threaded full port ball valves are CSA certified for use with natural, manufacturing, mixed and liquefied petroleum and LP gas/air mixtures. The valve features a 600 psi maximum working pressure. Features easy one quarter turn operation, and has long lasting Teflon seats and is made from a forged brass construction.

- Galvanized handle with vinyl grip
- Full water flow
- CSA certified

## Brass Swing Check Valves

Brass swing check valve with 200 psi capacity functions within the temperature range of 18°C to 82° C.

- Threaded End Connection
- Rough Brass Body
- Brass Disk Trim
- Standards: NSF/ANSI 372



## Brass Gate Valves

Threaded gate valve is designed for use in a fully open or closed position, where in line shut off is required.

- Brass construction
- Full Port, non-rising stem
- Teflon packing, cast iron handle
- Meets NSF/ANSI 372 lead free standard

## Brass Backflow Vacuum Breaker

The 0882-07NL No-Lead Self Draining Vacuum Breaker is designed to prevent back siphoning and backflow into a potable water supply. The vacuum breaker will also automatically self-drain when all hose attachments are removed, protecting the valve or faucet from freezing in colder weather. The 0882-07NL can be installed easily to any 3/4" hose faucet and comes complete with a breakaway set screw to ensure a permanent vandal-proof installation.

- CSA Standard B64.2 Certified
- ASSE Standard 1011 Certified

# Filtration Media Filters



## Media (Gravel) Filter

Max Flowrate (g/h)	40 *
Inlet / Outlet Diameter (Inch)	1" - 4"
Max. Working Pressure (PSI)	87 - 145
Filtration Area (inch <sup>2</sup> )	108 – 1750 *
Flushing Cycle Tme (sec)	50 (2") - 75 (4")
Filtration Degree (micron)	10-110

\*Data for one tank



## Sand Seperators

Max Flowrate (g/h)	98
Inlet / Outlet Diameter (Inch)	3/4 - 8
Max. Working Pressure (PSI)	145
Flushing Cycle Tme (sec)	30 - 40



# Filtration Automatic

## Disc - Plastic

Max Flowrate (g/h)	2 - 42
Inlet / Outlet Diameter (Inch)	3/4" - 6"
Filtration Area (inch <sup>2</sup> )	31 - 574
Max. Working Pressure (PSI)	145
Filtration Degree (micron)	20 - 800



## Screen - Plastic

Flowrate (g/h)	1.3 - 25
Inlet / Outlet Diameter (Inch)	3/4" - 6"
Filtration Area (inch <sup>2</sup> )	17 - 337
Max. Working Pressure (PSI)	145
Filtration Degree (micron)	22 - 500



## Screen - Metal

Flowrate (g/h)	1 - 120
Inlet / Outlet Diameter (Inch)	1" - 12"
Filtration Area (inch <sup>2</sup> )	Up to 1170
Max. Working Pressure (PSI)	115-145
Filtration Degree (micron)	50 - 3500



Ridged screens and pleated disc cartridges, are just some of the types of filters available today. Both are used to do the same thing - remove suspended solids from a stream of water. Aside from all the advantages of screen filtration, one of the biggest hindrances to their use is their tendency to clog quickly and need for frequent cleaning. There are a number of automatic methods in practice to eliminate the need for labour when cleaning the permanent screens in this class of filter. We are happy to offer some of the best brands in the marketplace.

# Filtration Semi-Automatic

## Screen - Plastic

Type	Brushaway / scanaway
Flowrate (g/h)	8 – 13
Inlet / Outlet Diameter (Inch)	2" - 3"
Filtration Area (inch <sup>2</sup> )	70 - 185
Max. Working Pressure (PSI)	145
Filtration Degree (micron)	10 - 500



## Screen - Metal

Type	Brushaway / scanaway
Max Flowrate (g/h)	265
Inlet / Outlet Diameter (Inch)	2" - 12"
Filtration Area (inch <sup>2</sup> )	72 - 3540
Max. Working Pressure (PSI)	145
Filtration Degree (micron)	50 - 3500



Both disc and screen filter options handle the pressure load, while sifting particulate from the water flow. These simple to use solutions are easy to maintain while using pressure gauges at the input and output ports to determine when the filters need to be cleaned.



# Filtration Manual

## Plastic Screen / Disc

Flowrate (g/h)	13 - 25
Inlet / Outlet Diameter (Inch)	3/4" - 6"
Filtration Area (inch <sup>2</sup> )	17 - 337
Max. Working Pressure (PSI)	145
Filtration Degree (micron)	22 - 500



## Small Inline Filters

Even small irrigation systems need filtration, particularly when providing water to drip lines. Intended for low flow rates and psi, our selection of filters come in various screen sizes depending on your needs. Our inline “Y” filters come in connection sizes ranging from 3/4” to 2” and make the world of difference in the performance of your drip system.

*Sizes: 3/4”-3” Max Flow Rate: varies by unit Max Pressure: varies by unit Call for assistance*



# Sprinklers

## Overhead Sprinklers

Part or full circle



### Metal

Property	Value
Flow rate at 2.5 PSI (gph)	185 - 1080
Wetting diameter (ft)	75' - 140
Nozzle size (mm)	3.7 - 7
Base connection (inch)	3/4" - 1" male/female
Operating pressure (psi)	30 - 70



### Plastic

Property	Value
Flow Rate at 2.5 PSI (gph)	6 - 250
Wetting Diameter (feet)	8' - 74'
Nozzle size (mm)	0.9 - 5.10
Angle (for impact sprinklers)	9, 12, 14 (Low) / 24 (High)
Base connection	5 mm (non-impact) - 1/2" (impact)
Operating Pressure (PSI)	20-60



# Sprinklers



## 20 Series

**Senninger's most economical sprinklers available on risers or under-tree installations**

Three models with different trajectories available:  
2009 - 9° fights wind drift and evaporation  
2014 - 14° ideal for under-tree irrigation  
2023 - 23° maximum throw on risers

• Wide range of nozzle and vane combinations for excellent distribution at all pressures

*Specs: Connections: 1/2" NPT male (female also available) Flow rates: 1.34 to 3.98gpm  
Operating pressures: 30 to 50psi*



## Triad

A three-stream sprinkler for orchard irrigation that's ideal for irrigating small root zones. Three adjustable nozzles for precise direction and trajectory control

*Specs: Flow rates: 0.94 to 1.82gpm  
Operating pressures: 10 to 35psi  
3/4" slip F and 25mm base  
Solvent welds directly to PVC riser –no need for a connecting fitting*



## Smooth Drive

Designed for under-tree, open-field irrigation. Its "walking diffuser" delivers a uniform pattern

- Low Angle model ideal for under-tree (white base) and • High Angle model ideal for open-field (black base)
- Precision-contoured deflector provides greater throw and enhanced distribution
- Advanced braking mechanism for smooth, consistent rotation speed and minimal riser stress

*Specs: Flow rates: 1.34 to 2.79gpm  
Operating pressures: 25 to 40psi  
Connections: 1/2" NPT male 1/2" socket x 3/4" socket x 1" spigot 20 mm socket x 25mm socket  
Solvent-weld base for theft resistance.*



## 30 Series

Delivering lower flows than the 40 or 50 series models.

- Wide range of nozzle and vane combinations for excellent distribution at all pressures
- 23° model available with double nozzle
- Two trajectories available:  
12° - ideal for under-tree irrigation  
23° - maximum throw on overhead systems

*Specs: Connection: 3/4" NPT male (female also available)  
Flow rates: 1.84 to 6.42gpm  
Operating pressures: 30 to 50psi*



## 40 Series

Delivers mid-range flows in comparison to the 30 and 50 series models

- Wide range of nozzle and vane combinations for excellent distribution at all pressures
- 23° model available with double nozzle
- Two trajectories available:  
12° - ideal for under-tree irrigation  
23° - for maximum throw on overhead systems

*Specs: Connection: 3/4" NPT male (female also available)*

*Flow rates: 3.82 to 12.6gpm*

*Operating pressures: 30 to 60psi*



## 50 Series

Delivers higher flows than the 30 or 40 series models

- Wide range of nozzle and vane combinations for excellent distribution at all pressures
- 23° model available with double nozzle
- Two trajectories:  
12° - ideal for under-tree irrigation  
23° - maximum throw on overhead systems

*Specs: Connections: 3/4" NPT male (female also available)*

*Flow rates: 6.5 to 20.1gpm*

*Operating pressures: 30 to 65psi*



## 70 Series

Distributes water at higher flows over a large diameter

- Double nozzle and spread drive models available
- Outlasts and costs less than brass sprinklers

*Specs: Connections: 1" NPT male, 1" BSPT male also available*

*Flow rates: 8.66 to 39.1gpm*

*Operating pressures: 40 to 70psi*



## 80 Series

Senninger's largest impact sprinkler designed for maximum efficiency at high flow rates

- Single and double nozzle designs available
- Double nozzle available in range or spreader drive
- Outlasts and costs less than brass sprinklers

*Specs: Connections: 1" NPT male, 1" BSPT male also available*

*Flow rates: 25.2 to 103.2gpm*

*Operating pressures: 40 to 70psi*



# Sprays & Wobblers



## T-Spray

Delivers a fine 360° spray ideal for delicate stock

*Specs: Flow rates: 0.98 to 2.85gpm*

*Operating pressures: 15 to 40psi*

*Connection: 1/2" NPT male*



## Spray Stakes

Available in three patterns to correspond to various container sizes, avoiding over-spray

- Directional indicator for easy positioning
- Easy to remove for cleaning and maintenance
- Shut-off feature
- Three color-coded flow rates to match application requirements
- Two-year warranty on materials, workmanship and performance

*Specs: Flow rates: 4 to 12gph*

*Operating Pressure: 20psi*



## Frost Protection XCEL-Wobbler

Wobbler sprinklers gently apply a consistent and uniform layer of water over plants to keep them covered in ice at all times. This prevents sudden loss of heat. The droplets produced by these sprinklers are consistently sized and large enough to resist wind drift – thereby preserving the pattern's integrity – but gentle enough to prevent damage to plants. Their constant rotary action also prevents ice buildup and prevents the sprinkler from freezing. In addition, less water is needed for achieving an equal result when compared to stream-driven devices.

The Xcel-Wobbler™ uses Senninger's off-center rotary-action technology. It provides an extremely uniform and instantaneous application pattern over a large area at lower pressures, and with very low evaporative loss.

Frost protection systems using Senninger Xcel-Wobblers require the following:

- A minimum application of 3.0 mm/hr to protect plants up to -5° C
- An additional 0.5 mm/hr for each additional degree (Celsius)\*
- Non-stop operation



## Mini Wobblers

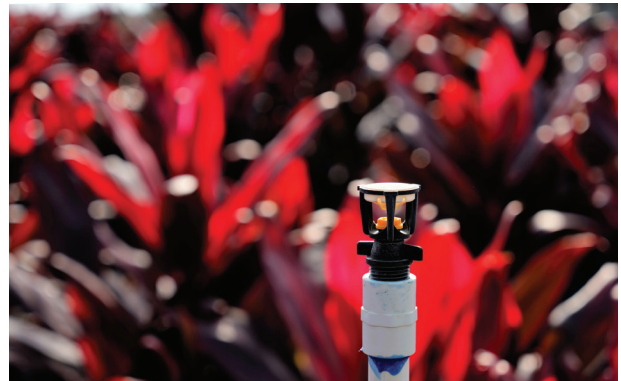
Senninger's off-center rotary-action technology, provides uniform coverage over a large diameter at low pressures

- Low evaporative loss
- Multi-level throw: 10°

*Specs: Flow rates: 0.42 to 2.18gpm*

*Operating pressures: 15 to 25psi*

*Connection: 1/2" NPT male*



## i-Mini-Wobblers

Senninger's off-center rotary-action technology, designed for inverted installations in greenhouses

*Specs: Flow rates: 0.75 to 2.18gpm*

*Operating pressures: 20 to 30psi*

*Connection: 1/2" NPT male*



## Inverted Micro-Sprinkler

Ideal for overhead irrigation in greenhouses, shade houses and hoop houses

*Specs: Flow rates: 7.2 to 81.6gpm*

*Operating pressures: 20 to 25psi*

*Connection: 1/2" M NPT, 3/8" M BSW, 1/4" barb*

*Drop Assemblies are also available upon request*



# Micro Irrigation

## Micro Sprinklers - PC

Property	Value
Flow Rate (gph)	2 - 78
Nozzle Size (mm)	0.85 - 2.4
Wetted Diameter (ft)	5' - 37'
Working Pressure (PSI)	22 - 58
Applications	Frost mitigation, cooling, long/medium/short range, upside down



## Micro Sprinklers - Non PC

Property	Value
Flow Rate (gph)	7 - 80
Nozzle Size (mm)	0.34 - 2.48
Wetted Diameter (ft)	3' - 26' (SHORT RANGE), 5' - 36' (LONG RANGE)
Working Pressure (PSI)	14 - 50



## Foggers & Misters

Property	Value
Flow Rate (gph)	1.4 - 6.6
Droplet Size (micron)	65 - 150
Working Pressure (PSI)	36 - 72
Applications	Seed germination on tables, cutting propagation humidifying, cooling





## Wobblers

Senninger's off-center rotary-action technology, provides uniform coverage over a large diameter at low pressures

- Only one moving part – which translates to longer life
- Low evaporative loss

*Specs: Flow rates: 0.78 to 7.64gpm  
Operating pressures: 10 to 30psi  
Connections: 3/4" and 1/2" NPT male*

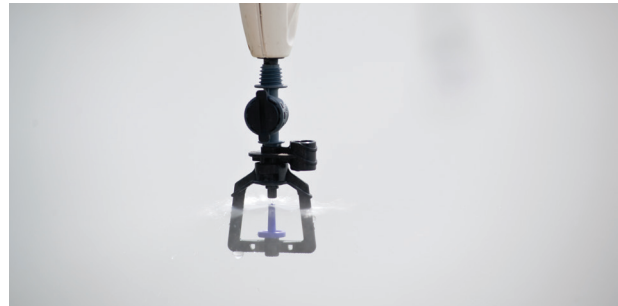


## Misters

Designed for propagation and other low volume misting applications

- Outstanding uniformity
- Bridgeless design for an uninterrupted 360° distribution pattern
- 140 mesh filtration required

*Specs: Multiple connection options: 1/2" NPT male, 3/8" BSW male, 1/4" barb, also available as 1/4" press fit  
Flow rates: 6.8 to 23.4gph  
Operating pressures: 30 to 50psi*



## Inverted Mister

Designed for propagation and other low volume misting applications

- Outstanding uniformity
- Bridgeless design for an uninterrupted 360° distribution pattern
- Easy clean nozzle with tool-free disassembly
- 140 mesh filtration required

*Specs: Multiple connection options: 1/2" NPT male, 3/8" BSW male, 1/4" barb, also available as 1/4" press fit  
Flow rates: 7.5 to 23.4gph  
Operating pressures: 30 to 50psi*



## Fogger

Reduces greenhouse temps and increase humidity levels in greenhouses, ideal for plant propagation

- Uniform blanket of droplets for propagation and chemical applications
- Built-in check valve provides instantaneous shutoff and prevents leakage
- 140 mesh filtration required

*Specs: Average flow rate per nozzle: 1.6gph  
Operating pressures: 45 to 60psi  
Multiple connection options: 1/2" NPT male, 3/8" BSW male, 1/4" barb, also available as 1/4" press fit*



# Silage



## Silage Wrap

Trio and Eco-Wraps are the newest generation of bale wraps. Taking the wrapping know-how to the next level with unique technology to create a thinner film with the same performance as a 25 micron premium film. Confirmed by one of the leading testing institutes for agricultural equipment, the Swedish University of Agricultural Sciences, who has performed professional tests on TrioPlus for several years. TrioPlus' specialty is based on high quality raw materials that enables you to work more efficiently when wrapping bales and save valuable time.

*Specs: Eco-Wrap/ TrioWrap 750mm x 1,500m 25µ TrioPlus 750m x 1900m 20µ Colours: white and green*



## Silage Bags

Quality silage bags for storage of animal feed and grain. The bags are made with high quality polyolefin which makes the bags soft, UV resistant and durable. Our bags are made of multi-layer film layer white/black with UV protection, these layers make the bags weather proof and protects from direct sunlight. Silage bags are used to store green and nutrias animal feeds like maize, sorghum etc. with minimum air inside the bag which keeps the fodder eatable for long time. It preserves feeds up to 3 years.

*Sizes: Diameters: 6.5', 8' 9', 10', 12' Lengths: 100', 150', 200', 250', 300', 400', 500' Ask us! We also carry the end caps that are an integral part of the bagging process.*



## Net Wrap

Crop Packaging Products (CPP) is a specialty of ours. HG-WWT offers packaging solutions and protective products for the agricultural market. Check out our line-up of net wrap for hay, straw and silage. We proudly offer our customers the best quality products that are both cost effective and result in non-stop, high quality baling.

*Specs: 48" x 9,840', 51" x 9,840' Colours: white and green*



## Bunker Cover

We understand that silage plastic plays a critical role in preserving feed. In general it prevents oxygen from getting into your silage, which decreases dry matter loss and protects the nutrients. The objective is to prevent as much oxygen as possible from entering your pile during feed storage. Reap the benefits of premium high strength, UV stabilized film, with superior puncture and tear resistance covers in a range of common sizes.

*Sizes: 5mil Widths: 24', 32', 40', 50', 60'  
Lengths: 100', 150', 200', 1,000' Ask us! We also carry gravel bags.*



## Twine and Sisal

You can bale with confidence with twine and sisal products that are tested and guaranteed to exceed declared strengths and lengths – outperforming the competition. This means less down-time for changeovers and twine breaks. These high density products have tested length that beat the competition and provides maximum strength, shock resistance, and UV protection.

*Specs: Big Square: 4000-440/ 500/ 550, 3600/ 650, 3900-600/ 650/ 700, Small Square: 12000-180, Round: 28000-110, 40000-110*



# Row Crop Equipment



## JGB Flatbed Mulch Layer

JGB's Flat Bed Mulch Layer is designed to make laying plastic mulch easy. It's a very simple operation for laying 48" mulch plastic. The press pan does the work on the front side, preparing a flat level surface on which to cover with mulch plastic. It's side coulters finish the job by securing the sides evenly with soil to ensure a solid and tight fitting plastic surface. Extra roll holder and drip attachment optional.



## Rain-Flo Model #345 Series II Flat Bed Plastic Mulch Layer

Standard Features:

- Will lay 3' to 5' plastic
- Requires minimum 30 Hp
- Has extra plastic roll carrier
- 16" cover disks with high-speed shields
- Compact machine has category I, 3-point hitch
- Has adjustable row markers
- Adjustable brake tension on plastic roll carriers

*Ask us about additional options available*



## JGB Model 4850 Raised Bed Mulch Layer

Built to lay the standard roll size of 48", JGB raised bed mulch plastic layers are easy to use, simple to adjust and create beautiful raised beds that are purpose formed and ready to use. These units are equipped with row markers. Single or double drip tape applicators are available as options to allow a single pass application of both drip tape and mulch plastic.

*Also available as a 3 row system*



## Rain-Flo Model 480 Raised Bed Mulch Layer

Standard Features:

- 60" row centers with 4' plastic, 80 hp FWD minimum
- Category II, 3-point hitch
- Adjustable bed height; 4" or 8"
- Lays 48" plastic only
- Adjustable crowned or flat bed top
- Adjustable brake tension on plastic rollers
- Adjustable row markers
- With Operator seat

*Ask us about additional options available*



## Rain-Flo Model 2400 Raised Bed Mulch Layer

Standard Features:

- Will lay 4' plastic with 58" minimum row spacing
- Adjustable 3" to 5" bed height
- Requires minimum 40-hp with 4-wheel drive
- Adjustable weight with water tank for firmer press bed
- Adjustable tension brake on plastic roll carriers
- $\frac{3}{8}$ " &  $\frac{1}{2}$ " UHMW poly lined bed press
- Category I and II 3-point hitch

*Ask us about additional options available*



## Rain-Flo Model 2550 Raised Bed Mulch Layer

Standard Features:

- 60" row centers with 4' plastic, 60 hp FWD minimum
- Category II, 3-point hitch
- Adjustable plastic width from 3 ft. or 4 ft. wide plastic
- Adjustable bed height from 3" to 7" high bed
- Adjustable brake tension on plastic roll carriers
- Spring loaded shovels on side, help loosen soil for cover disk

*Ask us about additional options available*



## Rain-Flo Model 2600 Raised Bed Mulch Layer

Standard Features:

- 64" row centers with 4' plastic, 70 hp FWD minimum
- Category II, 3-point hitch
- Adjustable plastic width from 3 ft. to 5 ft. wide plastic
- Adjustable bed height from 5" to 9" high bed
- Adjustable brake tension on plastic roll carriers
- Spring loaded shovels on side, help loosen soil for cover disk

*Ask us about additional options available*



# Planting Equipment



## Ferris Seeder PolyPlanter

The Polyplanter can precisely sow most uncoated seeds with precision accuracy. The Polyplanter uses a Monosem vacuum seed unit. Its precision includes the singulation of seeds from the size of pepper seeds to as large as lima beans. The Monosem does a great job in holding the seed to the seed plate –even seeds that are not uniformly standard in size. A six point wheel can easily be converted to a three point, simply by removing some points and changing the seed plate. Seeds like cucumbers, for example, can also be precision dropped 1, 2, or 3 seeds at a time per point if desired.

*Call us to discuss the best solution is for your operation*



## Samco Seed Planters

SAMCO pneumatic drills were developed in order to provide users with a consistent quality of seedlings even in difficult conditions. Equipped with Optima Kverneland seed units, the drill offers a very good quality of sowing regardless the type and size of the seed. The 2 Row machine is generally sold to sweet corn growers and small farmers. It has an output of 5 hectares per day.

- 3 point linkage required to lift machine
- Four track irrigators tines
- Equipped with a P.T.O driven spray system

With the selection of sizes and options, it is best to discuss with your rep to determine the best solution



## MaterMacc Vacuum Precision Planters

These planters are known for their simple structure and does not require specific adjustments. They are very compact because planting units are directly mounted on the toolbar and have a low overhanging weight. Various number of planting units can be mounted, according to the width of the toolbar and the distance between the rows.

*There are a number of product selections and options available to customize to your needs*



## Rain-Flo Waterwheel Transplanters

Rain-Flo transplanters are versatile water wheel planters known for their ease of use in planting vegetables into plastic mulch. Assembled, they are field ready with one planting wheel and able to plant bare roots, pots, and plugs. These units have capacities that range from of 8" to 36" row spacing and one to four planting wheels in a single pass. The transplanters are equipped with two tanks for water and starter fertilizer and can carry between 20 and 25 trays.

- Quick change planting wheel setup
- Easy adjustment for comfort on seat and foot rest
- Large tires with highway bearings
- Side valve for washing hands
- Galvanized expanded metal trays

*Ask us about additional options available*



## JGB Waterwheel Transplanters

JGB's Waterwheel Transplanter is a complete unit that allows for these ease of planting regardless of the transplant type (to plant bare roots, pots, and plugs). Available to this unit are options for welded spike wheels or Super Wheels that allow for changeability of spike spacing.

- Self feeding tray racks
- On board tanks or water and starter fertilizer
- A variation of welded wheels is available
- Works with Super Wheels and adjustable spikes
- Additional cross rack is available for carrying additional trays
- Also available as a 3 row system

*Ask us about additional options available*



# Sub-Surface Drip Applicators

SDI is more than an irrigation method, it's a management tool that allows growers to apply the precise amount of water directly to the root zone, to improve control of fertilizer application, eliminate run-off and evaporation and drive consistently higher yields through improved plant health. With a subsurface drip irrigation system, drip lines are buried below the soil surface enabling water and nutrients to easily reach each plant's root zone.

When used as a field management tool, drip irrigation gives the grower precise control over the root zone environment during the plant's critical growth stages. Sub-Surface Drip Applicators enable growers to precisely place drip lines at a depth into the soil bed that best suits the crop.



## 3803 Sub-Surface Drip Applicator

Standard Features:

- Heavy duty SDI applicator with Category II 3-point hitch
- Depth adjustable from surface to 3 inches
- Adjustable row centers 30"-68"
- Shear bolt for rocky soil
- Drip attachment has adjustable on demand brake
- Abrasive resistant opener for long life



## 4810 Sub-Surface Drip Applicator

Standard Features:

- Heavy duty SDI applicator with Category II 3-point hitch
- Depth adjustable from surface to 10 inches
- 4"x4"x1/4" toolbar for 30"-68" row centers
- 2" ID Stainless steel down tube for 5/8" to 1-1/8" tape
- Shear bolt for rocky soil
- Drip attachment has adjustable on demand brake
- Roller guides to prevent tape twist



## 6818 Sub-Surface Drip Applicator

Standard Features:

- Heavy duty subsurface drip applicator with Category II and III 3-point hitch
- Depth adjustable from 4 inches to 18 inches
- 6" x 6" x 1/2" toolbar for 30"-68" row centers
- Shear bolt for rocky soil
- Convenient operator platform
- 2" ID Stainless steel down tube for 5/8" to 1-1/8" tape
- Roller guides to prevent tape twist
- Spare roll carrier to hold 9 rolls
- 45° spool holder for fast and easy loading

# Crop Spray Equipment

## Enviromist Spraying Implements

A diverse selection of spraying implements that allow for customization. Shielded spray heads boast wind drift control and specific application control in both high flow or CDA spraying. The Enviromist line allows versatility in spraying with a selection of heads and the customization of toolbars. Build your own: Choose from various options and configurations that best suit your crops and spray program.

1. Toolbar Selection
2. Carriage Configuration
3. Spray System
4. Tank System

*Ask us about what options and flexibility are available to customize your machine*



## Flexidome

A shielded sprayer for weed control in soft fruit. The Flexidome is a shielded tractor-mounted sprayer which has been specifically developed for weed control in soft fruit grown in raised beds outdoors or in Spanish tunnels. It incorporates either traditional hydraulic pressure nozzles or CDA rotary atomisers which are mounted under spring loaded circular shields and rotate freely against the bed. This enables growers to spray right up to the shoulder of the bed resulting in efficient weed control with significant cost and labour savings. The plastic domes contain the spray droplets and minimise drift, thus enabling the spraying operation to be carried out in as wide a range of weather conditions as possible.



## Spraydome

Efficient weed control for orchards.

With the flexible and efficient extendable wings, the Spraydome CDA range of drift reducing sprayers have been specifically designed for treating weeds growing between rows of trees in orchards. The sprayers' adjustable width and wide reach make them ideal for use in almonds, pistachios, walnuts and other tree crops. Spraydome 1524 CDA is also a highly popular choice for controlling weeds in vineyards with varying row widths, as well as a host of amenity situations including spraying roadsides, parks and fence lines. The Spraydome CDA range incorporates a shielded design which eliminates spray drift and allows for the sprayers to be used even in windy conditions. No drift means reduction in chemical usage as the product is deposited exactly where it is required with no loss to the atmosphere.



# Crop Spray Equipment

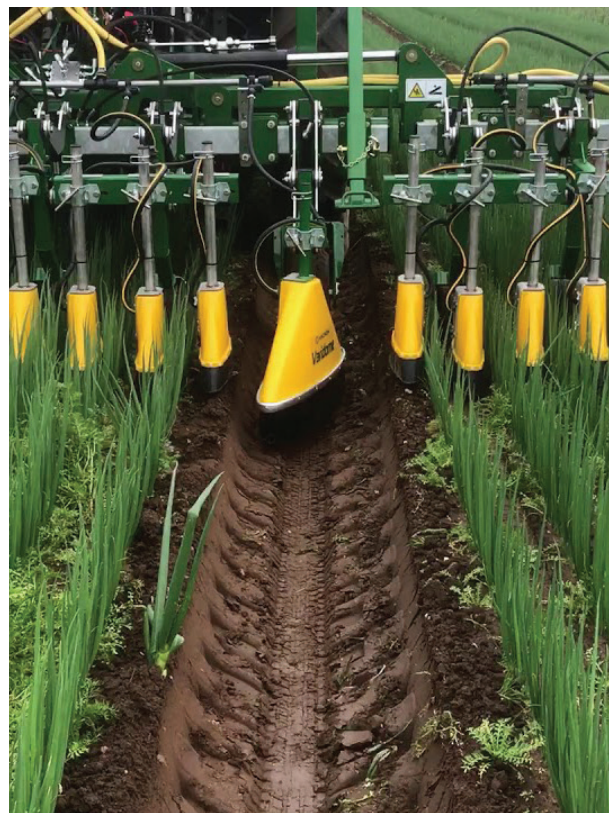


## Undavina

Shielded weed control for vineyards and orchards. Incorporating traditional hydraulic pressure nozzles (HiFlo models) or Micron CDA (Controlled Droplet Application) atomisers, the Undavina range has been specifically developed for treating weeds in vineyards and orchards. The sprayer features a dome shaped brush design which rolls closely around the base of vines and trees to ensure maximum weed kill.

Due to its flexible structure, the sprayer is also ideal for use in young plants where an optional vinyl slip on cover is recommended to protect the sensitive stems from any risk of spray damage.

The Undavina CDA units feature a control system which monitors the flow of each individual spray head for maximum performance. The system includes a light indicator to monitor the operation of each CDA atomiser.



## Varidome

A range of efficient band sprayers.

The Varidome's spray width can be adjusted on each individual shield enabling users to treat the desired bands in different crops and varying growth stages.

The tool bar configuration can also be easily changed to fit different planting distances, band widths, number of rows and bed heights. Varidome spray shields are mounted on individual carriages with ground following wheels for independent operation.

This enables Varidome to follow the contours of the terrain keeping each shield in close contact with the ground to further minimise spray drift. When not in use, the carriages can be lifted up and locked in position for safe transportation.



# End of Season Equipment



## JGB Mulch Lifter

Built rugged to handle the ripping and pulling of mulch plastic at the end of the season prior to removing it from the field. Will lift plastics from 3' to 5' wide with fast and easy adjustments.

- Affordable for small and large growers
- Designed to lift plastic better
- Center Disk to cut plastic in the middle is optional and removable



## Rain-Flo Model 1800 Mulch Lifter

- Will lift plastics from 3 ft. to 5 ft. wide with fast and easy adjustments
- Lifting plows uses Case I.H. 18" right and left hand "Deep-suck" Shares
- Two spring loaded vine cutting disks
- Removable center disk to cut plastic in middle
- Heavy shanks have 5/8" safety shear bolts. Auto-reset is optional
- The Challenger is build to last and make your job easy



## Tractor Mount Manual Guide Spooler

This Row Cover Retriever is a mechanical unit that requires some manual support to evenly feed the spooler. This unit boasts the ability to assist in the unrolling of new row covers which come on large rolls as well as roll up or unroll spooled floating row covers. Only a 3 points hitch tractor connection is required in order to perform the job. It requires a hydraulic control on your tractor and spool to collect your covers.



## Tractor Mount Automatic Traversing Spooler

This unit has the same outcome as the standard retriever however, the collection procedure does not require a person on the ground to feed the unit into the retriever. It features a traversing feeder that pivots back and forth on a bar located at the front where the spool sits, which evenly distributes row cover across the spool as it is collected.



# Horticultural LED Lighting

## By Gold Leaf Technologies

Maximize your indoor growing operation with the power and efficiency of the latest in LED lighting technologies. With several unique advantages over existing horticultural lighting, LED options offer lower energy consumption, reduced radiant heat output, controlled spectral composition, and significantly longer life spans. Often supported through government grants, the choice to move your business into the future of LED technology can maximize your growth, while reducing your energy demands. We offer a variety of lighting solutions for environments including Greenhouses & Cannabis, Under Canopy, Vertical Farming, and more.



## Greenhouse & Cannabis

Indoor growing effectiveness leans heavily on the number of photons available from your grow light system. These are measured in micromoles ( $\mu\text{mol}$ ). Using LED technology, you can maximize your  $\mu\text{mol}$  output while reducing the required energy to produce them. We offer a range of greenhouse lighting solutions in varying wattages, spectrums, and optical patterns.



## Under Canopy Lighting

Under canopy lights are designed to be placed below the crop canopy. By using under canopy lighting, the light intensity within the canopy increases, allowing older, but still functional leaves to photosynthesize more and subsequently increase yields. Under canopy lights are generally used to supplement traditional overhead lighting sources. Often, the amount of supplemental lighting from overhead lights or the number of overhead fixtures can be reduced when both are used.





## Vertical Farming

When space is at a minimum, go vertical! Current trends in LED lighting have expanded the options available to vertical farmers by reducing size, heat output, and energy consumption of fixtures. With compact designs with varying wattages and spectrums of light, appropriate lighting has proven to bolster yields and add efficiencies to your operation.



## Commercial Lighting

We also offer a variety of lighting solutions for any style of building including warehouses, livestock barns, outdoor spaces and more. Please speak with a sales representative for more information about your commercial lighting needs.



***Luxgrow***





# Echo



# BCS



Pressure Washer

Chipper / Shredder

Power Sweeper  
30", 40" & 48"

Log Splitter

Snow Thrower  
24", 28" & 33"

40" Snow Blade

36" Dozer Blade

Power Harrow  
21" & 32"

Rear Tine Tiller  
18", 20", 26",  
30" & 33"

Plastic Mulch Layer

26" Dethatcher

Brush Mower  
21", 26" & 32"

Sickle Bar Mower  
30", 40", 45" & 53"

Lawn Mower w/ Catcher  
22" & 38"

30" HD Combo Mower

Flail Mower  
24", 30" & 35"

PTO Attachment Point

Handlebars Rotate 180°

**ONE TRACTOR POWERS ALL THESE ATTACHMENTS, AND MORE!**

# ONE TRACTOR DOES IT ALL.



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