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What an exciting time to be in the hydroponic industry! These are times with incredible opportunity for hydroponic produce growers. Consumers are becoming increasingly concerned with food safety. Hydroponic produce offers that safety! The Controlled Environment Hydroponic Systems sold by CropKing help keep contamination out. In addition, hydroponic production offers a higher quality, longer lasting, and better tasting product! Greenhouse grown vegetable crops are in high demand and this trend is sure to continue!

Consumer appetite continues to increase for locally grown produce. Farmer’s Markets and CSAs are thriving and growers are receiving record prices for their lettuce, tomatoes, and other crops. Today’s consumers want to know where their produce was grown, and they appreciate buying it from a local farmer.

Do you have the right structure? The proper systems and equipment? The necessary technical support? We can help. CropKing is your source for everything you need to become a successful and profitable grower of high value, specialty crops.

CropKing Two-Day Grower Workshops provide unique and valuable learning opportunities for new and prospective growers alike. Workshops are held on location, at privately owned commercial production greenhouses around the country. With over 30 years of experience in the industry, CropKing’s technical support package provides access to the leading experts in the field to help you troubleshoot and produce higher crop yields, superior quality, and more profit.

This year, we expanded our manufacturing and warehouse facility. All of our accomplishments are because of you, our customers, and we owe each of you a heartfelt, THANK YOU! This promises to be yet another exciting year in the hydroponic industry. Our goal is the same as it’s been for the past 30 years… to help grower’s get started, succeed, and expand!

Sincerely,
Your CropKing Family!
My name is Joe and I’ve had dealings with CropKing for a few years. I am very happy with the help I have received from the company. From the setting of the greenhouses to the final harvest the staff of Crop King has helped out in every way. They are readily available to offer great assistance with any questions or problems that arise.

-Joe from Kentucky
**CropKing 10 Bato Bucket**

**System includes**
- Square Aluminum Stand
- Feed and Drain Plumbing
- 10 Bato Buckets with Elbows
- Active Aqua Pump
- Perlite Growing Media
- Botanicare 40 Gallon Tank with Lid
- Digital Timer
- Adjustable Feet for Leveling
- Assembly Instructions

**CropKing 10 Bato Bucket**  
**Item** BAT0010  
**Price** $695.00

---

**Accessories**

<table>
<thead>
<tr>
<th>Description</th>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>BlueLab Combo Meter</td>
<td>PHM3000</td>
<td>$260.00</td>
</tr>
<tr>
<td>PH Control Kit</td>
<td>PHT4000</td>
<td>$17.20</td>
</tr>
<tr>
<td>5 Pounds Vine Crop HydroGro A</td>
<td>FER3022</td>
<td>$19.00</td>
</tr>
<tr>
<td>5 pounds Calcium Nitrate</td>
<td>FER3025</td>
<td>$ 7.00</td>
</tr>
<tr>
<td>Rockwool AO 36/40 Pad</td>
<td>ROC1008</td>
<td>$ 9.83</td>
</tr>
<tr>
<td>10/20 Seed Tray</td>
<td>TRA1101</td>
<td>$ 1.40</td>
</tr>
<tr>
<td>Bato Bucket Covers</td>
<td>BAT0005</td>
<td>$ 0.45</td>
</tr>
<tr>
<td>100 Vine Clips</td>
<td>VIN8003</td>
<td>$ 5.00</td>
</tr>
<tr>
<td>20 Bato Bobbins</td>
<td>TOM1015</td>
<td>$10.00</td>
</tr>
<tr>
<td><em>Hydroponic Tomatoes</em> by Howard M. Resh</td>
<td>BOO0042</td>
<td>$ 16.00</td>
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</tbody>
</table>

**Overall footprint:** 10’ 4” x 22” x 26” LWH

Recirculating System
CropKing 24 Bato Bucket

Grow over 500 pounds of vine ripe fresh tomatoes per year in this commercial style system! This is an ideal system for growing crops such as tomatoes, cucumbers, eggplants and peppers. Each perlite filled bato bucket holds one or two plants, and is fed hydroponic nutrients from a provided 100 gallon nutrient tank. The long life, tan colored, plastic bato buckets have a special reservoir and elbow drainage system to provide the correct moisture level and nutrient gradient for optimal root health.

The Bato Bucket System is comprised of 16 foot long double rows, with 12 buckets in each row. The buckets rest on the provided drain lines. The system is normally setup as a “drain to waste” commercial style system where the excess nutrient solution flows through the two inch drain line down the center of the system into a drain, but it can also be setup as a recirculating system by burying the nutrient feed tank, and sloping the drains back to the tank.

The Bato Bucket Growing System includes 24 buckets with elbows, a 100 gallon nutrient tank, an electronic timer, a feed pump, a filter, distribution and drainage plumbing, hardware, and perlite growing media. A minimum greenhouse footprint of approximately 12 feet by 20 feet will be needed to access all sides of the plants.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAT0024</td>
<td>Bato Bucket System</td>
<td>$ 995.00</td>
</tr>
<tr>
<td>BAT0024PS</td>
<td>Plant Support Package, 100 ft of cable, bato bobbins, turnbuckles for two rows of plants</td>
<td>$ 167.00</td>
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<tr>
<td>BAT0005</td>
<td>24 Bato Bucket Covers</td>
<td>$ 10.80</td>
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<tr>
<td>VIN8003</td>
<td>200 Vine Clips</td>
<td>$ 10.00</td>
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<tr>
<td>FER1000</td>
<td>50 pound Vine Crop Hydro-Gro</td>
<td>$ 126.00</td>
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<tr>
<td>FER3014</td>
<td>50 pound Calcium Nitrate</td>
<td>$ 29.95</td>
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<tr>
<td>FER3012</td>
<td>5 Pound Potassium Nitrate</td>
<td>$ 25.50</td>
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<tr>
<td>PHM3000</td>
<td>BlueLab Combo Meter</td>
<td>$ 260.00</td>
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<tr>
<td>ROC1008</td>
<td>Rockwool AO 36/40 Pad</td>
<td>$ 9.83</td>
</tr>
<tr>
<td>ROC1008</td>
<td>10/20 Seed Tray</td>
<td>$ 1.40</td>
</tr>
<tr>
<td>TRA1101</td>
<td>10/20 Seed Tray without Holes</td>
<td>$ 1.40</td>
</tr>
<tr>
<td>BAT0005</td>
<td>24 Bato Bucket Covers</td>
<td>$ 10.80</td>
</tr>
<tr>
<td>VIN8003</td>
<td>200 Vine Clips</td>
<td>$ 10.00</td>
</tr>
</tbody>
</table>

We accept Visa, Mastercard and Discover on all orders at 330-302-4203
**CROPKING NUTRIENT INJECTOR SYSTEM**

The CropKing Nutrient Injector System is the ideal way to precisely control nutrient and PH levels in your hydroponic system. Designed with the grower in mind, our injector system is simple to use and is built with the highest quality parts for reliability and minimal maintenance. PVC and corrosion-resistant components are used throughout. The system offers the consistency of a reservoir setup and the convenience of a direct injection system.

The CropKing Nutrient Injection System comes completely assembled and mounted on a steel frame. It is pressure tested before leaving our manufacturing facility. Installation is simple with PVC union connectors on the water supply side and the nutrient solution side. The system also includes a bypass kit to aid in system cleanup and emergency situations. For added security, the CropKing Nutrient Injector System comes equipped with an alarm kit to alert the grower if a loss of pressure is detected. The alarm can connect to a Sensaphone to call and alert the grower, or can activate a (customer supplied) 115 volt flashing light or buzzer.

All electrical connections are clearly marked in the drip-proof system control box. Complete electrical diagrams are provided with each system. The CropKing Nutrient Injection System’s control panel features manual and automatic switches with indicator lights for all functions. The system is compatible with any type of 24-volt AC irrigation controller. The CropKing Injection systems will supply up to 17 GPM at 24PSI of nutrient solution to the irrigation system with up to 4 irrigation zones. Standard injection ratio designed at 1 to 100 with three injection heads. *Nutrient Concentrate Tanks (3) purchased separately, See page 33.*

**2 Zone Nutrient Injection System**
- Item FERT202 Each $3495.00

**4 Zone Nutrient Injection System**
- Item FERT204 Each $3549.00

**CROPKING NUTRIENT INJECTION SYSTEM REPLACEMENT PARTS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
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</thead>
<tbody>
<tr>
<td>Item GOR1027</td>
<td>Elbow Connector, 2 Pack</td>
<td>$22.50</td>
</tr>
<tr>
<td>Item GOR1021</td>
<td>Poppet Valve includes 2 valves, 2 o-rings, 3/4 inch diameter</td>
<td>$46.75</td>
</tr>
<tr>
<td>Item GOR1024</td>
<td>1 inch Bellows</td>
<td>$37.50</td>
</tr>
<tr>
<td>Item GOR1028</td>
<td>1-1/2 inch Bellows</td>
<td>$39.00</td>
</tr>
<tr>
<td>Item GOR1020</td>
<td>O-Ring, 1-1/2 inch Bellows</td>
<td>$6.75</td>
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<tr>
<td>Item GOR1001</td>
<td>Displacement Cup, 1 inch Bellows</td>
<td>$12.00</td>
</tr>
<tr>
<td>Item GOR1019</td>
<td>Displacement Cup, 1-1/2 inch Bellows</td>
<td>$16.00</td>
</tr>
<tr>
<td>Item GOR1100</td>
<td>Crank Assembly</td>
<td>$50.00</td>
</tr>
<tr>
<td>Item FLO7000A</td>
<td>Upper RS-5 Assembly, float switch</td>
<td>$58.75</td>
</tr>
<tr>
<td>Item FLO7000</td>
<td>Lower RS-5 Assembly, float switch</td>
<td>$48.25</td>
</tr>
<tr>
<td>Item GOR1003</td>
<td>Pump Body Assembly</td>
<td>$176.00</td>
</tr>
<tr>
<td>Item GOR1040</td>
<td>1-1/2 inch Valve Body, no screws</td>
<td>$14.00</td>
</tr>
<tr>
<td>Item GOR0005</td>
<td>Suction Filter</td>
<td>$4.50</td>
</tr>
<tr>
<td>Item GOR0006</td>
<td>Barbed Fitting (tubing attachment of suction fitting)</td>
<td>$1.21</td>
</tr>
<tr>
<td>Item GOR0001</td>
<td>1/4 inch Delivery Tube, 1 Foot</td>
<td>$0.47</td>
</tr>
<tr>
<td>Item GOR0002</td>
<td>1/4 inch Nylon Check Valve</td>
<td>$1.30</td>
</tr>
<tr>
<td>Item TAN3000</td>
<td>52 Gallon Mixing Tank with Lid, Blue</td>
<td>$189.95</td>
</tr>
<tr>
<td>Item SOL4000</td>
<td>1 inch Solenoid Valve, Nylon Electric PBI 2-Way Valves, 24 Volt, PVC</td>
<td>$31.00</td>
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<tr>
<td>Item PUM6000</td>
<td>Three Head Bellow Pump</td>
<td>$592.00</td>
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<tr>
<td>Item # PUM6001</td>
<td>One Head Bellow Pump</td>
<td>$353.80</td>
</tr>
<tr>
<td>Item # GOR1012</td>
<td>Gear Motor Kit includes motor for bellows pump, fan, mounting screws, ground set screws and all assembled.</td>
<td>$310.00</td>
</tr>
</tbody>
</table>

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*We accept Visa, Mastercard and Discover on all orders at 330-302-4203*
BATO BUCKET - TOMATO AND VINE CROP PRODUCTION

Bato Bucket Growing System
With over 30 years experience in the Hydroponic field, CropKing is a leader in growing system solutions. We offer the most practical and cost effective vine crop systems for hydroponic farming. Over the years we have improved, developed, and upgraded both the equipment and the growing system. The importance CropKing places on the bottom line and complete satisfaction of our growers is unsurpassed in the industry. We feel there is no better advertisement than a profitable, happy grower.

For vine crop production, we recommend the Dutch or Bato Bucket Growing System. Bato Buckets are UV resistant, strong plastic containers that can be used repeatedly for years to come. The Bato bucket offers quality, as well as security when growing high value crops. Each bucket is formed with a small reservoir to avoid drowning or starving your plants.

Other features of our Commercial Bato Bucket System:

Triple Injection System: Includes three concentrate tanks: (for Micro Nutrients, Macro Nutrients, and pH control), a mixing tank, pressure gauge, solenoid valve, plumbing kit and pump. (All pre-assembled, mounted and tested)

Bato Bucket and Nutrient Delivery: The Bato Bucket system is suitable for longer growing, fruiting crops such as tomatoes, cucumbers, peppers, eggplant, melon and a few other crops. CropKing’s Bato Bucket system uses horticulture grade perlite as a growing media because it is clean and has great wicking capability. Rather than black plastic, our Bato Buckets are made of tan plastic to help maintain a cooler root zone. This is very important on a hot, sunny day in the greenhouse. Other parts of the System include, pre-cut and drilled drain line that fits directly under the buckets, drip irrigation plumbing with pressure compensated emitters (1 per plant), ½ inch poly feed tube, and emitter tubing.

Computerized Environmental Controls: The Control System is the brain of the greenhouse. This dedicated unit controls all the environmental equipment in the greenhouse including fans, heaters, vent door, wet wall, lights and CO₂. Maintaining the proper plant environment in your greenhouse is critical to growing a profitable crop. This system measures both temperature and humidity of the greenhouse and adjusts the equipment to maintain the correct set points. These precision controls allow you to improve crop quality, reduce equipment usage, and lower your energy costs. For added security, this system is capable of alarm auto-dialing to alert you if there is an issue in your greenhouse. The iGrow Control System has on-screen programming for easy tracking and adjustment of the environment. There are 12 outputs with LED status display indicators and manual over-ride switches. With the addition of “slave units” the iGrow system can be expanded.

Electrical Panel: To help make sure everything works properly, CropKing provides a pre-wired electrical panel that has been tailored to your greenhouse needs. The breaker panel is mounted on a white painted board, along with the relay box, and the iGrow controller(s). All of these come pre-wired together and terminal strips are provided to connect the greenhouse equipment. This pre-wired panel makes installation much easier, allowing you to just connect the panel to the incoming power source in your greenhouse. Wires will need to be run from your greenhouse equipment to the provided terminal strips on the panel. The wiring for this system can be complicated and often misunderstood by the local electrician. CropKing simplifies all this with their pre-wired electrical panel. Our panels and boxes are interior grade NEMA enclosures as we find this appropriate for a hydroponic greenhouse operation.
**Plant Support System:** Vine crop support must be capable of holding up a heavy crop when it is in full production. CropKing provides for this support by supplying 1.66” diameter steel posts that are concreted into position, with galvanized cabling and all necessary hardware.

**Testing and Miscellaneous Equipment:** CropKing has put together a package that will be needed for monitoring your nutrient solutions and the environment in your greenhouse as well as equipment for pollination and nutrient mixing pumps.

**CO₂ Enrichment and Control System:** The shorter daylight hours of winter limit plant growth. Another limiting factor is the reduced amount of CO₂ in the air. Plants have the ability to use much more CO₂ during photosynthesis than is found in the normal atmosphere. More available CO₂ to use for photosynthesizing and growth, means faster and more prolific growing plants. This system monitors the available CO₂ in your greenhouse and adjusts it to your desired set point by the iGrow, which controls the CO₂ generator.

**Shade Cloth:** The most cost effective way of controlling greenhouse temperature during the hot, summer months is using shade cloth. It improves light diffusion, reflects summer heat, and keeps greenhouses cooler. It is manufactured from knitted polyethylene fabric that does not rot, mildew, or become brittle. We include the cabling and quick clips for easy installation. 40% white shade cloth is standard. (Different shade cloth densities are available depending on geographic location and local light levels).

**Growing Supplies:** CropKing feels that it is beneficial to include the first year of growing supplies with your order. It saves on shipping costs, as it ships with the rest of your system at no extra charge. Your growing supplies include approximately 1 year of hydroponic fertilizer (designed specifically for your water), Rockwool starter cubes, hybrid seed for greenhouse production, perlite growing media, bato bobbins, heat mats and trays, Vine clips, Truss hooks, a one year subscription for bumble bees, Mycostop, Greenshield disinfectant and insect sticky strips.

*Note: Please check with local electric codes, some codes require the constructed panel to be UL listed. Our components are UL listed.*

<table>
<thead>
<tr>
<th>System Sizes</th>
<th>Width x Length</th>
<th>Plant Spaces</th>
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</thead>
<tbody>
<tr>
<td>Freestanding Greenhouse</td>
<td>30 x 128</td>
<td>870</td>
</tr>
<tr>
<td>Single Bay Gutter Connect Greenhouse</td>
<td>22 x 128</td>
<td>720</td>
</tr>
<tr>
<td>2-Bay Gutter Connect Greenhouse</td>
<td>44 x 128</td>
<td>1,440</td>
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<td>4-Bay Gutter Connect Greenhouse</td>
<td>88 x 128</td>
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<tr>
<td>6-Bay Gutter Connect Greenhouse</td>
<td>132 x 128</td>
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<td>8-Bay Gutter Connect Greenhouse</td>
<td>176 x 128</td>
<td>5,760</td>
</tr>
<tr>
<td>16-Bay Gutter Connect Greenhouse</td>
<td>352 x 128</td>
<td>11,520</td>
</tr>
</tbody>
</table>

Customized Systems are available. Please call 330-302-4203 for more options.
BATO BUCKETS

The Bato Buckets are designed to be fed by an emitter and measure 12 inches long, by 10 inches wide, by 9 inches tall. Included with the bucket are two small siphon elbows, to be installed in the bottom of the bucket. These elbows are installed to keep a small reservoir of nutrient in the bottom of the bucket, about 2 inches in depth. This nutrient reservoir keeps the growing media from drying out and prevents water stress on the plant between irrigation cycles. The buckets are designed to rest on a 1 ½ inch PVC drain line, so the drain water is suctioned from the lowest level and discharged into a central drain line. This method allows the reservoir to be constantly replenished and prevents accumulation of stale nutrient solution. Bato buckets work well for heavy fruiting plants such as tomatoes, cucumbers, and peppers. Each bucket has a capacity of 2.9 gallons, it takes a half cubic foot of perlite to fill one bucket. Call for special pricing on large orders.

Bato Bucket with Two Elbows, Beige
- Item BAT0001 1-50 $ 6.25
- Item BAT0001 51-250 $ 5.75
- Item BAT0001 251-607 $ 4.95
- Item BAT0001 608-4255 $ 4.50
- Item BAT0001 4256+ $ 3.95

Bato Bucket Elbow, need two per bucket
- Item BAT0003 2 elbows $ 0.75

Bato Bucket Cover
Cover your bato bucket to prevent light and debris from entering. Help keep root zone temperatures optimal and keep algae growth out. Includes a set of 1.5 pound white, Styrofoam covers. 360 covers in a case, 180 complete sets of covers
- Item BAT0005 1-199 $ 0.45
- Item BAT0005 200+ $ 0.37

Bucket Accessories

Perlite Horticulture Coarse Growing Media, 4 Cubic Foot - Fills 8 bato buckets
- Item PER4000 1-32 $ 11.60
- Item PER4000 33-99 $ 10.30
- Item PER4000 100+ $ 10.00

Barbed Stake Guide
- Item STA1004 Each $ 0.15

Feed Tube 5/3 mm, per foot
- Item FEE0054-E Each $ 0.20

Feed Tube 5/3 mm 1000 foot roll
- Item FEE0054 Each $ 60.00

Emitter Premium CNL 0.50 GPH
- Item EMI1012 1-49 $ 0.29
- Item EMI1012 50+ $ 0.27

Poly Pipe Feed Line 1/2 inch, 500 foot roll
- Item FEE1500 Each $ 50.80

Poly Pipe Feed Line 1/2 inch, 250 foot roll
- Item FEE1525 Each $ 27.95

Poly Pipe Feed Line 1/2 inch, 100 foot roll
- Item FEE1510 Each $ 15.95

Plant Support Cable 3/32 inch, per foot
- Item CAB5001 Each $ 0.25

Plant Support Cable 3/32 inch, 500ft
- Item CAB5002 Each $ 78.00

Plant Support Cable 3/32 inch, 1,000ft
- Item CAB5003 Each $ 135.20

Cable Clamp 3/32 inch
- Item CAB4000 Each $ 0.50

Drain Pipe Predrilled 7 hole with Belled End, 9-1/2 Foot Length on 16 inch centers
- Item BAT0004 Each $ 13.00

Street Elbow 1-1/2 inch ABS PVC
- Item PLSJJ4L-SP Each $ 2.90

End Cap 1-1/2 inch ABS Anti-Vapor
- Item PLSJA4S-S Each $ 2.96

Slip Tee 1-1/2 inch ABS
- Item PLSJJ4T-SSS Each $ 2.61
**BATO TRUSS HOOKS**

Truss hooks are used to give support to the tomato cluster itself, keeping the truss stem from kinking and cutting off nutrient flow to the developing tomatoes. The J type truss hook has a small, “barbed” type of hook on one end that attaches to the vine twine. The other end has a small hook that goes onto the tomato truss.

**3-1/2 inch Bato J-Type Truss Hook**
Terra Cotta, Case of 6500

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<tbody>
<tr>
<td>TRU1300</td>
<td>1-9 $ 64.00</td>
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<tr>
<td>TRU1300</td>
<td>10-19 $ 61.00</td>
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<td>TRU1300</td>
<td>20+ $ 57.25</td>
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**4 inch Bato J-Type Truss Hook**
Terra Cotta, Case of 8500

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<td>TRU2000</td>
<td>20+ $ 65.50</td>
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**PRE-TOM**

PRE-TOM is a safe chemical solution which protects the pores of the skin against tomato leaf-green sap (chlorophyll). Apply just a few drops and rub onto hands and fingers prior to suckering, pruning, or harvesting. The green will be easier to wash off and will reduce drying of your hands.

**Pre-Tom, 250 ml**

<table>
<thead>
<tr>
<th>Item</th>
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</thead>
<tbody>
<tr>
<td>TOM1001</td>
<td>$ 16.95</td>
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</table>

**TWINE**

Poly Twine, Roll of 1,050 Feet

<table>
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<th>Item</th>
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<tr>
<td>VIN4001</td>
<td>$ 9.00</td>
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Blue Vine Twine, Roll of 10,000 Feet

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<tbody>
<tr>
<td>VIN4000</td>
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**Hook**

Top Hook
For Cucumbers

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<tr>
<td>VIN8006</td>
<td>$ .17</td>
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**VINE CLIPS**

Vine clips are used when growing tall plants, or vine crops, to clip the plant to a string or trellis support wire. They are primarily used by tomato, cucumber, and pepper growers, but are also used for roses and other tall plants. These are 7/8 inch with UV protection allowing for longer life.

**7/8 inch Terra Cotta Econo Clip**
23MM, Bag of 100

<table>
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<th>Item</th>
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<td>VIN8001</td>
<td>1-9 $ 64.00</td>
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<tr>
<td>VIN8001</td>
<td>10-19 $ 61.00</td>
<td></td>
</tr>
<tr>
<td>VIN8001</td>
<td>20+ $ 57.25</td>
<td></td>
</tr>
</tbody>
</table>

Note: Clips designed for one time use.

**1 inch Terra Cotta Mega Clip**
25mm, Bag of 9,000

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIN8002</td>
<td>1-9 $ 79.00</td>
<td></td>
</tr>
<tr>
<td>VIN8002</td>
<td>10-19 $ 70.00</td>
<td></td>
</tr>
<tr>
<td>VIN8002</td>
<td>20+ $ 65.50</td>
<td></td>
</tr>
</tbody>
</table>

Growers are advised to use more clips early in the season. Generally, add one clip per week, which equals out to about a clip every 8-10 inches on the plant.

**TOMAHOOKS**

Tomahooks are used to secure the vine and twine to the overhead support cable. The vine twine is wrapped around the tomahook, then when leaning and lowering, the twine is unwound, and the Tomahook is slid along the support cable.

**Tomahooks, Case of 1000**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOM1000</td>
<td>$ 122.00</td>
<td></td>
</tr>
<tr>
<td>TOM1000</td>
<td>2-5 $ 105.00</td>
<td></td>
</tr>
<tr>
<td>TOM1000</td>
<td>6+ $ 96.00</td>
<td></td>
</tr>
</tbody>
</table>

**BATO BOBBINS**

Designed to hang from the overhead crop support wire. There is a locking tab in the hood to help secure the bobbin on the wire and keep them from popping off. They come factory wound with 42 foot of white twine. Due to the UV stabilizers, Bato Bobbins can be rewound and reused for several years, but because they are priced so economically, and for sanitary purposes, it is best to replace them each crop. 800 bobbins per case.

**Bato Bobbins with 42 foot Twine**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOM1015</td>
<td>1-799 $ 0.50</td>
<td></td>
</tr>
<tr>
<td>TOM1015</td>
<td>800-3199 $ 0.45</td>
<td></td>
</tr>
<tr>
<td>TOM1015</td>
<td>3200-12,799 $ 0.40</td>
<td></td>
</tr>
<tr>
<td>TOM1015</td>
<td>12,800+ $ 0.35</td>
<td></td>
</tr>
</tbody>
</table>

**REELENZ**

Reelenz has been designed to make the layering of tomato plants quicker and easier.
- Only one hand is needed for layering.
- Eliminates the need to lift each plant.
- Hangers will not spin off the crop wire.
- Reels rotate once to release short lengths of twine, then self-lock.
- Reels are easily taken off the hangers at the end of the crop.

**Reelenz Plant Layering System with 80 foot Twine**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOM1010</td>
<td>1-299 $ 1.40</td>
<td></td>
</tr>
<tr>
<td>TOM1010</td>
<td>300-1199 $ 1.35</td>
<td></td>
</tr>
<tr>
<td>TOM1010</td>
<td>1200-2099 $ 1.30</td>
<td></td>
</tr>
<tr>
<td>TOM1010</td>
<td>2100+ $ 1.25</td>
<td></td>
</tr>
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</table>

**TAPENER**

**Max Tapener Machine, HTB-2**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAP1000</td>
<td>$ 74.95</td>
<td></td>
</tr>
</tbody>
</table>

**Tape, HTB, Small Hole**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAP1001</td>
<td>$ .60</td>
<td></td>
</tr>
</tbody>
</table>

**Tape, HTB-2, Large Hole**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAP1002</td>
<td>$ 2.12</td>
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</table>

**Tapener Blades, HTB-2, 3 Blades**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAP1004</td>
<td>$ 9.70</td>
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</table>

**Tapener Staples, HTB-2, 4,800 Staples**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAP1003</td>
<td>$ 5.18</td>
<td></td>
</tr>
</tbody>
</table>

Be sure to use the tapener machine properly. If you are overusing the tapener, and not using enough vine clips to support the weight of the plant, the vine clip will pop open.
IRRIGATION

The Netafim Dripper Stake Assembly is ideal for soilless substrates and hydroponic applications because each rockwool cube receives an equal and precise amount of water nutrients.

Slow, Low-Flow Drippers
The slower and lower flow of Netafim drippers wet the soil media thoroughly without any run-off around the edges of the container. This allows longer runs on smaller polyethylene supply laterals maintaining excellent uniformity while holding down system costs. The PCNL dripper feature ensures that each plant receives the same amount of water at the same time. A built-in check valve assures that all the drippers will turn on - when the system is fully pressurized - and off at the same time.

Pressure Compensating Dripper
The WPCJ dripper is pressure compensating to provide a constant flow from 10 to 45 psi and has a built-in check valve to ensure instantaneous on-off at system shut-down. Drippers have a RED inlet for easy flow identification.

**EMITTERS**

<table>
<thead>
<tr>
<th>Pressure Compensated:</th>
<th>0.50 GPH</th>
<th>Item EMI1002</th>
<th>1-49, Each $ 0.45</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>0.50 GPH</td>
<td>Item EMI1002</td>
<td>50+, Each $ 0.43</td>
</tr>
<tr>
<td>1.00 GPH</td>
<td>Item EMI1004</td>
<td>1-49, Each $ 0.45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.50 GPH</td>
<td>Item EMI1002</td>
<td>50+, Each $ 0.43</td>
</tr>
<tr>
<td>2.00 GPH</td>
<td>Item EMI1000</td>
<td>1-49, Each $ 0.45</td>
<td></td>
</tr>
<tr>
<td>6.00 GPH</td>
<td>Item EMI1001</td>
<td>50+, Each $ 0.57</td>
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</table>

Non-Pressure Compensated:

<table>
<thead>
<tr>
<th>0.50 GPH</th>
<th>Item EMI1006</th>
<th>1-49, Each $ 0.42</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.50 GPH</td>
<td>Item EMI1006</td>
<td>50+, Each $ 0.40</td>
</tr>
<tr>
<td>1.00 GPH</td>
<td>Item EMI1007</td>
<td>1-49, Each $ 0.42</td>
</tr>
<tr>
<td>1.00 GPH</td>
<td>Item EMI1007</td>
<td>50+, Each $ 0.40</td>
</tr>
<tr>
<td>2.00 GPH</td>
<td>Item EMI1008</td>
<td>1-49, Each $ 0.42</td>
</tr>
<tr>
<td>2.00 GPH</td>
<td>Item EMI1008</td>
<td>50+, Each $ 0.40</td>
</tr>
</tbody>
</table>

**POLY PIPE FEED LINE**

Black poly pipe made with a very high quality polyethylene material that is soft and pliable, and allows emitters to be installed. Designed to work with our Netafim emitters and feed tube.

<table>
<thead>
<tr>
<th>Poly Pipe Feed Line 1/2 inch, 500 foot roll</th>
<th>Item FEE1500</th>
<th>Each $ 50.80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly Pipe Feed Line 1/2 inch, 250 foot roll</td>
<td>Item FEE1525</td>
<td>Each $ 27.95</td>
</tr>
<tr>
<td>Poly Pipe Feed Line 1/2 inch, 100 foot roll</td>
<td>Item FEE1510</td>
<td>Each $ 15.95</td>
</tr>
<tr>
<td>MPT by Barb 3/4 inch for 1/2 inch Poly Pipe</td>
<td>Item FEE2001</td>
<td>Each $ 0.98</td>
</tr>
<tr>
<td>Coupling Insert 1/2 inch</td>
<td>Item FEE2003</td>
<td>Each $ 0.42</td>
</tr>
<tr>
<td>Insert Tee 1/2 inch</td>
<td>Item FEE2005</td>
<td>Each $ 0.87</td>
</tr>
<tr>
<td>Insert Elbow 1/2 inch</td>
<td>Item FEE2006</td>
<td>Each $ 0.67</td>
</tr>
</tbody>
</table>

**FEED TUBE**

Super Flex UV White™ PE Tubing is made from the highest quality plastics with excellent UV resistance. The reflective white tubing is completely opaque to prevent algae growth. The tubing is not coated or layered white, it is solid white for long-term durability.

<table>
<thead>
<tr>
<th>Feed Tube 5/3 mm, per foot</th>
<th>Item FEE0054</th>
<th>Each $ 0.10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed Tube 5/3 mm, 1000 foot roll</td>
<td>Item FEE0054</td>
<td>Each $ 60.00</td>
</tr>
<tr>
<td>Feed Tube, .160-.220 inch Black, per foot</td>
<td>Item FEE1000</td>
<td>Each $ 1.14</td>
</tr>
<tr>
<td>Feed Tube, .160-.220 inch Black, 1000 foot roll</td>
<td>Item FEE1000</td>
<td>Each $ 100.00</td>
</tr>
</tbody>
</table>

**VALVES**

<table>
<thead>
<tr>
<th>Variflow Valve</th>
<th>Item EMI1015</th>
<th>Each $ 0.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shut Off Valve for 1/2 inch Poly Pipe</td>
<td>Item EMI1014</td>
<td>Each $ 2.10</td>
</tr>
</tbody>
</table>

**LINE END**

This simple line end is used to clamp the end of our poly feed line. It can easily be removed to flush the line if desired.

<table>
<thead>
<tr>
<th>16mm Line End</th>
<th>Item FEE2002</th>
<th>Each $ 0.21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bato Bucket system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emitter</td>
<td>Feed Tube FEE0054</td>
<td></td>
</tr>
<tr>
<td>Cross End</td>
<td>Barbed Stake Guide STA1004</td>
<td></td>
</tr>
<tr>
<td>Emitter</td>
<td>Feed Tube FEE0054</td>
<td></td>
</tr>
<tr>
<td>Cross End</td>
<td>Barbed Stake Guide STA1004</td>
<td></td>
</tr>
<tr>
<td>Premium CNL Emitter:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.50 GPH</td>
<td>Item EMI1012</td>
<td>1-49, Each $ 0.29</td>
</tr>
<tr>
<td>0.50 GPH</td>
<td>Item EMI1012</td>
<td>50+, Each $ 0.27</td>
</tr>
<tr>
<td>0.80 GPH</td>
<td>Item EMI1010</td>
<td>1-49, Each $ 0.59</td>
</tr>
<tr>
<td>0.80 GPH</td>
<td>Item EMI1010</td>
<td>50+, Each $ 0.56</td>
</tr>
</tbody>
</table>

Goof Plugs, Set of 10
Used to correct a mistake or fill a hole from a removed emitter.

| Item GOO1000 | Each $ 1.20 |

Barbed Stake Guide
Barbed Stake has a unique flow channel down the length of the stake directing the water into the container. It also has a pointed end for easy container insertion. 250 stakes in a bag.

| Item STA1004 | Each $ 0.15 |

Stabilizer Peg

| Item STA1000 | Each $ 0.14 |

**POLY PUNCH**

Pocket Punch

| Item PUN6500 | Each $ 8.95 |

Punch N Cut

| Item PUN7000 | Each $ 18.95 |

Miracle Punch

| Item PUN5000 | Each $ 19.95 |
|-----------|--------------|-------------|
|             |              |             |
|             |              |             |
USING BUMBLEBEES, THE NATURAL POLLINATORS

To obtain a good tomato harvest, it is necessary that the flowers of the crop are pollinated. In order to achieve fruit set, the pollen has to be released from the stamens and transferred to the female parts. Until recently, this was done using an electric or battery operated pollinator. This was a painstaking and delicate task requiring significant amount of labor.

In 1988 it was discovered that bumblebees could do this work much better and also more efficiently. Their sense of smell guides them to the flower when it is ready to be pollinated. The bumblebees accomplish this task seven days a week throughout the entire season. The bumblebee lives in colonies but acts more or less individually, unlike the honeybee. Bumblebees can also be used for pollination of a wide range of crops including tomatoes, peppers, blueberries, strawberries and other small fruits and orchard crops.

Bumblebees visit tomato flowers to gather pollen. Pollen is their protein source. The bumblebee only visits flowers when the pollen is mature and in a condition to be released. They do not work flowers that are immature or flowers that have pollen that is too wet and sticky due to high humidity. Bumblebees are generally not aggressive and if you leave them alone, they will leave you alone.

When you are working with the plants, you do need to be aware that they are in the greenhouse, however. If you surprise one when you are clipping or suckering, both of you may jump. As long as you watch out for them and let them go about their business, there should be no problem. Each hive consists of 50 to 100 bumblebees. Because they are larger than honey bees, they can carry more pollen in one trip. They are also more efficient pollinators than honeybees. Because of the life cycle of the bumblebee and the mature nature of the social structure of the hive, the effectiveness of the hive for pollinating drops off after two to three months. Reinforcement hives or replacement hives need to be brought in once hive decline has been detected.

Bumblebees are sensitive to many insecticides and therefore they work quite well with greenhouses that employ the use of beneficial insects.

The cost of using bumblebees for pollination is more than offset by the better job they do. Actually, the labor to manually pollinate probably costs more than the bumblebee hive. In addition to the labor savings, when using bumblebees growers report more complete pollination and fruit set, more uniform fruit, larger fruit, and better quality fruit. There are three sizes of hives currently available. Class “C” hives are for greenhouses up to 5,000 sq. ft., providing approximately 3 to 5 weeks of service. Growers with greenhouses from 5,000 to 15,000 sq. ft. should purchase a Class “B” hive and expect to get 6 to 8 weeks of service from it. Growers with 15,000 sq. ft. to half an acre of greenhouse should purchase a Class “A” hive and expect to get 12 to 16 weeks of service from it.

Hives must be ordered by Monday or Wednesday, 12:00 noon Eastern Time. They should arrive in the same week on Wednesday or Friday respectively.

They should be ordered once flowers on the first cluster are opening on most of the plants in the greenhouse. Contact us for further information on how you can implement bumblebees in your greenhouse. UPS next day is required for shipping. Ask sales associate for details.

**HELPFUL TIPS**

**When your bumblebees arrive…**

... take them to the greenhouse and set them on a freestanding stand away from the fan end of the greenhouse. A shelf attached to the structure would provide undesirable vibration to the hive.

After an hour or so, open the bee door by sliding the plastic slide to the open position. Leave the cardboard cover on the hive.

If ants are present, create an ant barrier so that the ants can't get to the hive. Ants will steal the artificial nectar if they have the opportunity.

---

**PETAL TICKLER POLLINATOR**

Series Ultima CL

- Lightweight
- Maneuverable
- Versatile
- Cordless

A 4.8 Volt battery pack as the power source provides up to eight hours of run time before charging is required. Normal charge time is 1-1/2 to 2 hours.

- Variable speed control knob allows precise adjustment to optimize the pollination process.
- Rubber coated vibrating flex-rod provides protection to the flower stem.
- Switch: The standard switch in the Ultima CL has push-on, push-off action, which allows removal of thumb while in operation. A momentary action switch, which requires continuous activating pressure, is available as a special order.

The manufacturer offers a one year limited warranty against defective parts and workmanship.

**Petal Tickler Pollinator**

Item POL1998 Each $ 259.00

---

**POLLEN**

Order pollen with your first hive of the season. Pollen can be fed to the hive if there are not enough flowers to meet their pollen needs. This can occur if the hive is introduced before enough flowers are open. It can occur if your greenhouse does not have enough plants to support the hive. A 30 x 128 foot house is marginal. Pollen can be useful if you have a more vigorous hive in a marginal sized greenhouse. Store the pollen in the freezer.

**Pollen, 1 Pound**

Item BEN3024 Each $ 18.00
CropKing NFT 4-6

Perfect introductory system for the hobby grower or for educational purposes.

- (6) 4 foot channels with a total of 36 plant spaces
- 55” x 55” x 31” LWH
- Square Aluminum Support Table with adjustable legs for leveling
- Completely closed system, including both spouted and smooth end caps to help avoid algae growth
- Removable top caps for easy cleaning
- Nutrient feed line plumbing and drain lines
- Submersible Pump
- Easy to assemble

Item NFT0406  $375.00

Order this System and Receive Free Shipping in Continental USA

4-6 Starter Kit includes: pH Control Kit, 2 Pounds Hydro-Gro Fertilizer, 200 1-inch Rockwool Cubes, Seed Tray and Hobby Hydroponics Book.

Item NFT0406A  Each $49.95

* Reservoir not included
CropKing NFT 8-4

Recommended Accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rockwool AO 25/40 Pad</td>
<td>ROC1004</td>
<td>$ 9.50</td>
</tr>
<tr>
<td>BlueLab Combo Meter</td>
<td>PHM3000</td>
<td>$ 260.00</td>
</tr>
<tr>
<td>5 Pounds Leafy HydroGro</td>
<td>FER3020</td>
<td>$ 19.00</td>
</tr>
<tr>
<td>5 Pounds Calcium Nitrate</td>
<td>FER3025</td>
<td>$ 7.00</td>
</tr>
<tr>
<td>PH Control Kit</td>
<td>PHT4000</td>
<td>$ 17.20</td>
</tr>
<tr>
<td>10/20 Seed Tray</td>
<td>TRA1101</td>
<td>$ 1.40</td>
</tr>
<tr>
<td><em>A Practical Guide to NFT</em> by C.J. Molyneux</td>
<td>BOO0027</td>
<td>$ 49.75</td>
</tr>
</tbody>
</table>
CropKing NFT 8-25

The CropKing NFT 8-25 is a great way to test your market for hydroponic lettuce or to supply a farm market with locally grown greens.

The growing channels are constructed from UV stabilized, Food Grade plastic and have removable top covers for ease of cleaning. A cleaner system allows for healthier plants and higher yields.

Cropking eliminates the need for cutting and drilling by pre-punching the top covers.

Our channel comes with end caps to keep out light and prohibits algae growth. The design and height of the CropKing NFT channel works perfectly with a one inch rockwool cube, eliminating the need for filling net pots.

System measures 8.5 x 16.75 feet

**System Includes**
- (25)8 Foot Growing Channels with 300 plant spaces
- Galvanized Steel Support Table
- Nutrient Feed and Return Plumbing
- 1/8 HP Submersible, Continuous Duty Pump
- 100 Gallon Stock Tank
- Growing Instructions

**CropKing NFT 8-25**

<table>
<thead>
<tr>
<th>Description</th>
<th>Item #</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>CropKing NFT Fertroller</td>
<td>FERT100</td>
<td>$2795.00</td>
</tr>
<tr>
<td>25 Gallon Mixing Tank</td>
<td>TAN2001</td>
<td>$100.50</td>
</tr>
<tr>
<td>50 Pounds Leafy HydroGro</td>
<td>FER1000</td>
<td>$126.00</td>
</tr>
<tr>
<td>50 Pounds Calcium Nitrate</td>
<td>FER3014</td>
<td>$29.95</td>
</tr>
<tr>
<td>(1) Case of Rockwool AO 25/40 Pad</td>
<td>ROC1004</td>
<td>$186.90</td>
</tr>
<tr>
<td>10/20 Seed Tray without Holes</td>
<td>TRA1101</td>
<td>$1.40</td>
</tr>
<tr>
<td>BlueLab Combo Meter</td>
<td>PHM3000</td>
<td>$260.00</td>
</tr>
<tr>
<td><em>A Practical Guide to NFT</em> by C.J. Molyneux</td>
<td>BOO0027</td>
<td>$49.75</td>
</tr>
</tbody>
</table>
CropKing NFT 10-36

This hydroponic system is a great starter system for those interested in commercial hydroponic lettuce production. The NFT 10-36 is the perfect way to test your market for hydroponic lettuce. This system is completely enclosed to minimize algae growth with a removable top for easy cleaning. System measures 10-1/2 x 26-3/4 feet.

System Includes
- (36) 10 foot Growing Channels with 540 plant spaces
- Galvanized Steel Support Table
- Nutrient Feed and Return Plumbing
- (2) 1/8 HP Submersible Pump
- 100 Gallon Stock Tank
- 3 Tray Seedling Nursery
- Instructions

**CropKing NFT 10-36**

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
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<tbody>
<tr>
<td>NFT1036</td>
<td>$2495.00</td>
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</tbody>
</table>

**CropKing NFT 10-36 with Fertroller and (3) 25 Gallon Stock Tanks**

<table>
<thead>
<tr>
<th>Item</th>
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<tbody>
<tr>
<td>NFT1036A</td>
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**Recommended Accessories**

<table>
<thead>
<tr>
<th>Description</th>
<th>Item</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>CropKing NFT Fertroller</td>
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<td>FER1500</td>
<td>$126.00</td>
</tr>
<tr>
<td>50 Pounds Calcium Nitrate</td>
<td>FER3014</td>
<td>$29.95</td>
</tr>
<tr>
<td>(1) Case of Rockwool AO 25/40 Pad</td>
<td>ROC1004</td>
<td>$186.96</td>
</tr>
<tr>
<td><em>A Practical Guide to NFT</em> by C.J. Molyneux</td>
<td>BOO0027</td>
<td>$49.75</td>
</tr>
</tbody>
</table>
Nutrient Film Technique Lettuce and Herb Production

CropKing's many years of research and growing experience have helped us to determine the best equipment and the best growing methods for different crops. When the goal is to produce high quality lettuce and herb crops, we recommend the NFT channel system. This growing system is an investment in the future of your business and every component is of the highest quality. The NFT re-circulating system efficiently reduces water usage. The channel is extruded, food grade PVC with removable top cap for ease of cleaning. Over the years we have made changes and improvements to our growing systems, but always giving careful consideration to which equipment will be the most efficient and economical. CropKing is genuinely concerned about our customer’s “bottom line” because a profitable grower is our best advertisement!

Other features of our Commercial NFT System:

NFT Channels: Channels are Food Grade, sunlight resistant PVC Channels with removable top cover for easy cleaning. Each channel has two types of end caps: one solid cap, and one spouted cap with anti-drip drainage design. Planting holes in top caps are pre-punched square holes on 8” centers. CropKing NFT Channels are completely enclosed, eliminating light from reaching the nutrient solution which greatly reduces algae growth. Algae growth can plug lines and attract pests. The spouted end cap plugs directly into the drain line for easy removal during harvesting, cleaning and replanting.

Fertroller: The CropKing Fertroller is an automated nutrient controller providing continuous monitoring and control of the EC and pH levels of the nutrient solution tank. With continuous, automatic adjustment of the nutrient solution, growers can expect higher production and increased crop quality. Other features of the Fertroller include: an alarm to warn the grower if solution is outside the set parameters, safety preset lockouts prevent dosing in out of range situations, large digital displays of the actual values and desired values, easy pH calibration. The Fertroller includes three concentrate tanks for Micro Nutrients, Macro Nutrients, and pH control, (All pre-assembled, mounted and tested)

Nutrient Delivery: Features a large underground nutrient solution reservoir. Underground reservoirs provide a stable nutrient solution temperature. Included in the package is an energy-saving nutrient pump along with a backup pump for crop security, In-line filtration with spare filter cartridges, Large diameter PVC nutrient headers, Zone valves and high flow emitter fitting to direct nutrient solution to each channel.

Seedling Nursery: Custom manufactured PVC seedling nurseries are located on one end of the growing system. The nursery is designed as a propagation area for enough new seedlings to populate the growing channels as they are harvested. The Nursery features automated irrigation for consistent growth and reduced labor.

NFT Channel Supports: Gatorshield galvanized steel frame for supporting the growing channels and connecting hardware are included.

CO₂ Enrichment and Control System: The shorter daylight hours of winter limit plant growth. Another limiting factor is the reduced amount of CO₂ in the air. Plants have the ability to use much more CO₂ during photosynthesis than is found in the normal atmosphere. More available CO₂ to use for photosynthesizing and growth, means faster and more prolific growing plants. This system monitors the available CO₂ in your greenhouse and adjusts it to your desired set point by the iGrow, which controls the CO₂ generator.

Computerized Environmental Controller: The iGrow 1400 Control System is the brain of the greenhouse. This dedicated unit controls all the environmental equipment in the greenhouse including fans, heaters, vent door, wet wall, lights and CO₂. Maintaining the proper plant environment in your greenhouse is critical to growing a profitable crop. This system measures both
temperature and humidity of the greenhouse and adjusts the equipment to maintain the correct set points. These precision controls allow you to improve crop quality, reduce equipment usage, and lower your energy costs. For added security, this system is capable of alarm auto-dialing to alert you if there is an issue in your greenhouse. The iGrow Control System has on-screen programming for easy tracking and adjustment of the environment. There are 12 outputs with LED status display indicators and manual over-ride switches. With the addition of “slave units” the iGrow system can be expanded.

**Electrical Panel:** To help make sure everything works properly, CropKing provides a pre-wired electrical panel that has been tailored to your greenhouse needs. The breaker panel is mounted on a white painted board, along with the relay box, and the iGrow controller(s). All of these come prewired together and terminal strips are provided to connect the greenhouse equipment. This pre-wired panel makes installation much easier, allowing you to just connect the panel to the incoming power source in your greenhouse. Wires will need to be run from your greenhouse equipment to the provided terminal strips on the panel. The wiring for this system can be complicated and often misunderstood by the local electrician. CropKing simplifies all this with their prewired electrical panel. Our panels and boxes are interior grade NEMA enclosures as we find this appropriate for a hydroponic greenhouse operation. The power requirements of a greenhouse depend on the size of the greenhouse and whether grow lights are being installed. Note: Please check with the local electric codes. While we use UL listed components in our electrical panels, some codes require the constructed panel be UL listed.

**Testing and Miscellaneous Equipment:** Myron AG-5 Conductivity DS Meter, TDS Conductivity Standard (1/2 pint) Fisher pH Test Kit, Sensaphone Model 1104, Sensaphone Remote Temperature Sensor, Nutrient Mixing Pump, Mini-Max Thermometer (2), pocket sling psychrometer, white ground cover for floor under the growing channel are all part of this package. A vacuum seeder is included with 2 Bays and larger to eliminate hand seeding.

**Growing Supplies:** CropKing feels that it is beneficial to include the first year of growing supplies with your order. It saves on shipping costs, as it ships with the rest of your system at no extra charge. Your growing supplies include approximately 1 year of hydroponic fertilizer (designed specifically for your water), and 1 inch Rockwool starter cubes and seeds for the first three crop rotations.

**Shade Cloth:** The most cost effective way of controlling greenhouse temperature during the hot, summer months is using shade cloth. It improves light diffusion, reflects summer heat, and keeps greenhouses cooler. It is manufactured from knitted polyethylene fabric that does not rot, mildew, or become brittle. We include the cabling and quick clips for easy installation. 40% white shade cloth is standard. (Different shade cloth densities are available depending on geographic location and local light levels).

<table>
<thead>
<tr>
<th>System Sizes</th>
<th>Width x Length</th>
<th>Plant Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freestanding Greenhouse</td>
<td>30 x 128</td>
<td>6,192</td>
</tr>
<tr>
<td>Single Bay Gutter Connect Greenhouse</td>
<td>22 x 128</td>
<td>4,653</td>
</tr>
<tr>
<td>2-Bay Gutter Connect Greenhouse</td>
<td>44 x 128</td>
<td>9,306</td>
</tr>
<tr>
<td>4-Bay Gutter Connect Greenhouse</td>
<td>88 x 128</td>
<td>18,612</td>
</tr>
<tr>
<td>6-Bay Gutter Connect Greenhouse</td>
<td>132 x 128</td>
<td>27,918</td>
</tr>
<tr>
<td>8-Bay Gutter Connect Greenhouse</td>
<td>176 x 128</td>
<td>37,224</td>
</tr>
<tr>
<td>16-Bay Gutter Connect Greenhouse</td>
<td>352 x 128</td>
<td>74,448</td>
</tr>
</tbody>
</table>

CropKing can customize systems for your existing greenhouse.
CROPKING FERTROLLER FOR NFT

The CropKing Fertroller enables the grower to automatically control the EC and pH of the nutrient solution in recirculating NFT type growing systems. With automatic EC and pH control the grower can expect higher production, better crop quality and more time for other greenhouse duties. CropKing Fertroller is more than just a controller. It is supplied completely assembled and mounted on a tubular steel stand and wired for 120 volt power. The unit includes a purpose-designed controller specifically for use with greenhouse hydroponic growing systems. The Fertroller includes a pre-mounted two head pump to deliver “A” & “B” nutrient concentrates. Recently improved with the addition of an adjustable pH pump.

The Fertroller will provide continuous control of EC and pH of the nutrient solution by adding nutrient and/or pH control solutions as needed. Easily adjustable set points and dosing cycles are displayed along with your desired targets on large (1/2”) digital readouts. The Fertroller also has user adjustable alarm triggers to work with your alarm system. The Fertroller has a preset safety lockout feature to prevent dosing if EC, pH and/or solution flow is out of range. The EC control measurement range is 0.0 – 9.9 mS/cm with a control range of 0.2 – 9.8 mS/cm. Resolution is 0.1 EC with accuracy of ±3%. The EC probe has auto temperature compensation. The pH control measurement range is 4.0 – 7.2 pH with a control range of 5.0 – 7.2 pH. Resolution is 0.1 pH unit with accuracy of ±0.1 pH unit. The EC probe is factory calibrated with no adjustment needed. The pH probe is user calibrated. The controller and EC probe are warranted for 2 years and the pH probe warranty is 6 months. Other components carry the manufacturers warranty. Nutrient Concentrate Tanks (3) must be purchased separately, see page 33.

40” x 10” x 80” 100 lbs

NFT Fertroller Item FERT100 Each $ 2,795.00

Replacement Parts for Fertroller

- Single Head 1 inch Bellows Pump Item PUM6001 Each $ 353.80
- pH/ Automatic Temperature Control Probe for Dosetronic Item DOSETRONIC-ATC Each $ 140.00
- EC Probe for Dosetronic Item DOSETRONIC-EC3 Each $ 60.00
- Temperature Sensor for Dosetronic Item DOSETRONIC-TEMP Each $ 65.00
- Replacement Parts for Older Versions before 2010
  - EC Probe for Sample Board Item DOSETRONIC-EC2 Each $ 75.00
**NFT CHANNEL**

CropKing’s NFT channels are easy to use and easy to clean. One unique feature of our NFT channel is the removable lid or top cap for ease of cleaning and harvesting. There are end caps that cover both ends of the channel keeping out the light and thus preventing algae growth in the channel. It is constructed from food grade, UV stabilized plastic for safety and long life. Lids snap on and remain secure until they need to be removed for harvesting and cleaning. No need to spend hours punching or drilling holes in the lids because they come pre-punched with a 1”square hole on 8” centers. These holes as well as the depth of the channel are the perfect size to accept a 1” square cube of either Rockwool or Oasis. A slight “v” in the bottom of the channel directs the nutrient down the center of the channel to insure all plants receive the necessary nutrients.

- Manufactured using non-toxic food grade plastics
- Lids remain secure, yet are easily removed for cleaning
- The tops are pre-punched to save you hours of drilling
- Standard holes in the top caps are square to accept a 1” seedling cube—no need to use net pots. Ask your salesperson about the availability of custom channels
- Channel is available in standard lengths of 4’, 8’, 10’ and 12’ with top cap available in 4’ and 5’ lengths

**NFT Accessories**

- **Poly Pipe Feed Line 1/2 inch, 500 foot roll**
  - Item FEE1500
  - Each $ 50.80

- **Barbed Tee Emitter 5/3**
  - Item EMI1013
  - Each $ 0.19

- **Emitter 5mm**
  - Item EMI1005
  - 1-49, Each $ 0.15

- **Feed Tube 5/3 mm, per foot**
  - Item FEE0054
  - Each $ 0.20

- **Variflow Valve**
  - Item EMI1015
  - Each $ 0.50

- **Shut Off Valve “Greenback” for 1/2 inch Poly Pipe**
  - Item EMI1014
  - Each $ 2.10

- **Threaded Shut Off Valve** for 1/2 inch Poly Pipe
  - Item EMI1016
  - Each $ 2.40
## NFT Growing Channel Extruded Food-Grade PVC

*Call for special pricing on large orders.*

### 4-5/8” WIDE x 1-1/8” DEEP CHANNEL

**8 Foot Length**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-249</th>
<th>250-624</th>
<th>625-1249</th>
<th>1250+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9008</td>
<td>5 Foot Length, 7 Square holes</td>
<td>$8.53</td>
<td>$7.68</td>
<td>$6.91</td>
<td>$6.21</td>
</tr>
</tbody>
</table>

**10 Foot Length**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-199</th>
<th>200-499</th>
<th>500-999</th>
<th>1000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9010</td>
<td>5 Foot Length, 8 Square Holes</td>
<td>$10.65</td>
<td>$9.59</td>
<td>$8.53</td>
<td>$7.78</td>
</tr>
<tr>
<td>CHA9012</td>
<td>4 Foot Length, 6 Square Holes</td>
<td>$11.73</td>
<td>$10.56</td>
<td>$9.50</td>
<td>$8.45</td>
</tr>
</tbody>
</table>

**12 Foot Length**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-166</th>
<th>167-416</th>
<th>417-833</th>
<th>834+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9012</td>
<td>4 Foot Length, 6 Square Holes</td>
<td>$11.73</td>
<td>$10.56</td>
<td>$9.50</td>
<td>$8.45</td>
</tr>
</tbody>
</table>

**4 Foot Length**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9400</td>
<td>Each</td>
<td>$5.20</td>
</tr>
</tbody>
</table>

### TOP COVERS

The top cover has 1 inch square holes punched on 8 inch centers. For a 10 foot channel you will need one 5 foot top cover with 7 holes and one 5 foot top cover with 8 holes.

**5 Foot Length, 7 Square holes**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-399</th>
<th>400-999</th>
<th>1000-1999</th>
<th>2000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9005-7</td>
<td>5 Foot Length, 7 Square holes</td>
<td>$5.23</td>
<td>$4.70</td>
<td>$4.24</td>
<td>$3.81</td>
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</tbody>
</table>

**5 Foot Length, 8 Square Holes**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-399</th>
<th>400-999</th>
<th>1000-1999</th>
<th>2000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9005-8</td>
<td>5 Foot Length, 8 Square Holes</td>
<td>$5.23</td>
<td>$4.70</td>
<td>$4.24</td>
<td>$3.81</td>
</tr>
</tbody>
</table>

**4 Foot Length, 6 Square Holes**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-499</th>
<th>500-1249</th>
<th>1250-2499</th>
<th>2500+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9004</td>
<td>4 Foot Length, 6 Square Holes</td>
<td>$4.30</td>
<td>$3.87</td>
<td>$3.48</td>
<td>$3.13</td>
</tr>
</tbody>
</table>

**4 Foot Length, 6 Square Holes**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9414</td>
<td>45° Elbow</td>
<td>$1.80</td>
</tr>
</tbody>
</table>

### END CAP

Each channel needs one end cap, one spouted end cap and an elbow. The one on the drain end has a spout built in designed to connect to standard PVC pipe with the elbow.

**100 x 40mm End Cap**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-249</th>
<th>250-624</th>
<th>625-1249</th>
<th>1250+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9100</td>
<td>100 x 40mm End Cap</td>
<td>$1.50</td>
<td>$1.30</td>
<td>$1.15</td>
<td></td>
</tr>
</tbody>
</table>

**100 x 40mm End Cap with Spout**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-249</th>
<th>250-624</th>
<th>625-1249</th>
<th>1250+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9102</td>
<td>100 x 40mm End Cap with Spout</td>
<td>$1.50</td>
<td>$1.30</td>
<td>$1.15</td>
<td></td>
</tr>
</tbody>
</table>

**45° Elbow**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9414</td>
<td>45° Elbow</td>
<td>$1.80</td>
</tr>
</tbody>
</table>

### Wide Channels Used for CropKing Microgreen/Forage Crop

**9-1/2” WIDE x 1-1/8” DEEP CHANNEL**

**13 Foot Channel**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-199</th>
<th>200-499</th>
<th>500-999</th>
<th>1,000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9630</td>
<td>13 Foot Unpunched Cover</td>
<td>$51.25</td>
<td>$45.70</td>
<td>$40.65</td>
<td>* Cut fee is added when shipping UPS</td>
</tr>
</tbody>
</table>

**13 Foot Unpunched Cover**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9608</td>
<td>Each</td>
<td>$16.10</td>
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</tbody>
</table>

**End Cap**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-10</th>
<th>11+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9612</td>
<td>End Cap</td>
<td>$7.35</td>
<td>$6.50</td>
</tr>
</tbody>
</table>

**End Cap with Spout**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-10</th>
<th>11+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA9613</td>
<td>End Cap with Spout</td>
<td>$7.80</td>
<td>$6.85</td>
</tr>
</tbody>
</table>

**Splice**

| Item Code | Description | |
|-----------|-------------||
| CHA9614   | Splice | $6.22 |

**12 Foot Channel**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-199</th>
<th>200-499</th>
<th>500-999</th>
<th>1,000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA3000</td>
<td>12 Foot Channel</td>
<td>$55.00</td>
<td>$51.15</td>
<td>$47.45</td>
<td>* Cut fee is added when shipping UPS</td>
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</table>

**End Cap**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-74</th>
<th>75-199</th>
<th>200+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA3001</td>
<td>End Cap</td>
<td>$5.75</td>
<td>$4.90</td>
<td>$4.05</td>
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</table>

**End Cap with Spout**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>1-74</th>
<th>75-199</th>
<th>200+</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA3002</td>
<td>End Cap with Spout</td>
<td>$6.00</td>
<td>$5.10</td>
<td>$4.20</td>
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</table>
CropKing Greenhouses

GUTTER CONNECT GREENHOUSE

A gutter connect greenhouse is a series of arches (bays) connected together at the gutter level. Each bay is 22’ wide. Additional bays can be added for expansion.

HIGH TUNNEL

CropKings High Tunnel is a gothic style arch with high side walls.

HOOP HOUSE

CropKing’s freestanding greenhouse is a hoop or arch design.

PERFECT LITTLE GREENHOUSE

The Perfect Little Greenhouse is 10’ x 12’ and is designed for the hobbyist. It is the perfect greenhouse for a residential area.
22 Foot Wide Gutter Connect Greenhouse

Featuring:

- Expandable structure
- More growing space
- Structural aluminum gutters
- Tensile strength of 50,000-55,000 PSI
- Gutter has base extruded into the aluminum gutter
- Tubing is Allied Gatorshield Steel

<table>
<thead>
<tr>
<th>Length</th>
<th>48'</th>
<th>72'</th>
<th>96'</th>
<th>128'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame with 8 foot high gutters</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Bay</td>
<td>$4,398</td>
<td>$6,269</td>
<td>$7,785</td>
<td>$9,930</td>
</tr>
<tr>
<td>Additional Bay</td>
<td>3,143</td>
<td>4,407</td>
<td>5,492</td>
<td>7,010</td>
</tr>
<tr>
<td>Cover with 8 foot high gutters</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1 Bay</td>
<td>1,465</td>
<td>1,967</td>
<td>2,036</td>
<td>2,491</td>
</tr>
<tr>
<td>Additional Bay</td>
<td>490</td>
<td>613</td>
<td>774</td>
<td>933</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length</th>
<th>48'</th>
<th>72'</th>
<th>96'</th>
<th>128'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame with 10 foot high gutters</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Bay</td>
<td>$5,377</td>
<td>$7,571</td>
<td>$9,417</td>
<td>$11,993</td>
</tr>
<tr>
<td>Additional Bay</td>
<td>3,798</td>
<td>5,243</td>
<td>6,513</td>
<td>8,279</td>
</tr>
<tr>
<td>Cover with 10 foot high gutters</td>
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<td></td>
</tr>
<tr>
<td>1 Bay</td>
<td>1,757</td>
<td>2,364</td>
<td>2,455</td>
<td>3,030</td>
</tr>
<tr>
<td>Additional Bay</td>
<td>490</td>
<td>613</td>
<td>774</td>
<td>933</td>
</tr>
</tbody>
</table>

Specifications:

*Engineered for 20 Pound Roof Load, 90 MPH Wind Load*

Column Post Spacing: 8 Foot
Height to Gutter: 8 or 10 Foot
Arch Spacing: 4 Foot
Purlins: 3, 1-3/8" OD / 16 Gauge
Wind Braces: 4, 1-3/8" OD / 16 Gauge
Column Post, 8 Foot Gutter: 2" round OD / 13 Gauge
Column Post, 10 Foot Gutter: 2-1/2" square OD / 12 Gauge
Arch: 1-5/8" OD / 14 Gauge
End Wall Posts: 1-5/8" OD / 14 Gauge
End Wall Bracing: 1-5/8" OD / 14 Gauge
Gutter: 10" Aluminum Extruded
Cross Tie: 1-3/8" OD / 16 Gauge
# Hoop House Structure

**Featuring:**
- Arches on 4’ centers -for added strength and snow load
- Heavy duty ground stakes
- Gatorshield™ galvanized steel
- Steel made in the USA
- Heating and cooling options are available. Ask your salesperson.

<table>
<thead>
<tr>
<th>12’ Wide Greenhouse with 3 purlins</th>
<th>15’ Wide Greenhouse with 1 purlin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Center height is 7’7”</strong></td>
<td><strong>Center height is 7’</strong></td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td><strong>Frame</strong></td>
</tr>
<tr>
<td>24</td>
<td>$ 712</td>
</tr>
<tr>
<td>36</td>
<td>939</td>
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<tr>
<td>72</td>
<td>1621</td>
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<tr>
<td>96</td>
<td>2043</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>18’ Wide Greenhouse with 3 purlins</th>
<th>24’ Wide Greenhouse with 3 purlins</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Center height is 9’6”</strong></td>
<td><strong>Center height is 12’5”</strong></td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td><strong>Frame</strong></td>
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<td>96</td>
<td>2378</td>
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<table>
<thead>
<tr>
<th>30’ Wide Greenhouse with 5 purlins and cross brace</th>
<th><em>Double Cover Clear 6 mil UV Film</em>&lt;br&gt;Includes Inflation fan and Quick Lock to fasten covers</th>
<th><em>Single Layer Cover White 4 mil Film</em></th>
</tr>
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<tbody>
<tr>
<td><strong>Center height is 12’</strong></td>
<td></td>
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<tr>
<td><strong>Length</strong></td>
<td><strong>Frame</strong></td>
<td><strong>Double Layer Cover</strong></td>
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<td>$ 1296</td>
<td>$ 960</td>
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<td>36</td>
<td>1797</td>
<td>1016</td>
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<tr>
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<td>2321</td>
<td>1055</td>
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<td>72</td>
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<td>1397</td>
</tr>
<tr>
<td>96</td>
<td>4211</td>
<td>1808</td>
</tr>
</tbody>
</table>
Greenhouses

High Tunnel
This greenhouse is perfect to extend the growing season, or to grow all year long with optional heating and cooling packages. Start your seeds, grow in the dirt, or add one of CropKings hydroponic dutch bucket or NFT growing systems.

The gothic style arches and high side walls create a very workable greenhouse with no wasted space. Add a lot of production to your produce business with very little cost. Other add ons to this greenhouse include roll up, or down side walls, metal end walls, and roll up or sliding end wall doors.

Featuring:

• Manufactured in the USA from high strength triple galvanized steel
• Gothic style arches placed on 4 foot centers for heavy snow and wind load
• Includes all necessary hardware to complete the greenhouse
• Variety of widths and lengths to fit your space
• CropKing is an NRCS approved vender

Call a sales representative today for your custom quote!
Greenhouses

The Perfect Little Greenhouse
The perfect backyard greenhouse for the hobby grower

PLG Greenhouse Structure 10’ x 12’
This 10’ x 12 greenhouse is manufactured by CropKing a company that has been building strong commercial greenhouses for over 30 years. Unlike the small greenhouses sold by many of the big box stores, this greenhouse will not twist and blow away with the first big wind. The steel frame is made of high grade structural steel which has “Gatorshield” galvanizing for a cost effective, strong, greenhouse frame to survive strong winds and heavy snow loads. There are four arches which come in two pieces for easier shipping and are placed on 4’ centers. This greenhouse also features ground stakes, and three purlins that run the full length of the greenhouse. Also included are all of the needed connectors, hardware and brackets for attaching the end wall framing.

Greenhouse structure includes:

- Entrance door is a high quality aluminum screen door with self-storing glass.
- Greenhouse Covering The center of the greenhouse is covered with two layers of greenhouse grade, 6 mil polyethylene plastic. A high quality inflation fan pumps air between the two layers. The two covers are locked down to the greenhouse fame with an aluminum “C” channel and wiggle wire. The pillow of air between the two layers of greenhouse plastic provide insulation and rigidity (helps keep the plastic from flapping during windy weather).
- The front and back walls included in the greenhouse package consist of 8mm twin wall, rigid polycarbonate panels. “H” and “U” polycarbonate channel to join the sheets of polycarbonate panels together are included. Polycarbonate is strong, clear and impact resistant and comes with a 10-year warranty.
- Baseboard: Treated 2” x 10” lumber baseboards pre-cut to greenhouse dimensions and pre-drilled to accommodate connecting hardware.

Complete Greenhouse Structure  Each $ 1,899

Heating System  Each $ 799
Cooling System  Each $ 1,199
8- Bucket Hydroponic Growing System  Each $ 629
NFT  Each $ 600
Shade Cloth  Each $ 169

Total  $5,295*

*Save $600 by purchasing the complete package...

Package Special Pricing
ONLY $4695!

Visit PerfectLittleGreenhouse.com for more information

CropKing, Inc.
This look back article is from 1995; I can still smell the hair gel and hear the boy bands.

It is crazy to think that back in '95 we were already an established company that had been in business for over 10 years.

The systems, location, and musical preferences may change at CropKing, but the high level of customer service never will.

We hope you enjoy this article as much as we do, and if you haven't worked with us before we would love to show you how dedicated we are to our customers.

We judge our success on the success of our customers.
AIR INFLATION KIT
For double poly greenhouses you’ll need an air inflation kit to provide the “dead air space” between the two covers. Our air inflation kit contains the cover blower (60 cfm), the air jumper tube, damper and the mounting bracket. Outside vent not included.

**Air Inflation Kit, 60 CFM**
Item AIK6000 Each $90.00

**Air Inflation Kit, 70 CFM**
Item AIK0100 Each $118.00

AIR INFLATION FAN
**Air Inflation Fan, 60 CFM with Damper**
Item AIK0060 Each $68.95

**Air Inflation Fan, 70 CFM**
Item AIK0100 Each $118.00

AIR JUMPER TUBE
Use this tube when connecting double layer poly film from roof to sidewall or endwall to allow pressurized air in both locations.

**Air Jumper Tube**
Item AJK0200 Each $15.30

CROSS CONNECTORS
**1-3/8 x 1-3/8 inch Cross Connector with bolts**
Item CRO1315 Each $2.00

**1-5/8 x 1-3/8 inch Cross Connector with bolts**
Item CRO1660 Each $2.16

**2 x 1-3/8 inch Cross Connector with bolts**
Item CRO2000 Each $2.20

BRACE BANDS
**1-3/8 inch Brace Band**
Item BRT1315 Each $0.93

**1-5/8 inch Brace Band**
Item BRT1660 Each $1.32

**1.90 inch Brace Band**
Item BRT1900 Each $1.32

GREEN-SHIELD DISINFECTANT
(Not for direct application on plants)
Green Shield is used to disinfect greenhouse structures, tools, floors, benches, etc., and is longer lasting, yet less irritating than bleach.

When used as part of Integrated Pest Management, Green-Shield can minimize the occurrence of disease problems in a crop by killing the resting structures of plant pathogens before they infect your crop.

**Green Shield, 1 Gallon**
Item FUN1010 Each $39.95

INSULATED ALUMINUM DOOR
White 3-inch aluminum door; and 3 inch aluminum with a nailing flange. The door system comes pre-hung with 3 stainless steel hinges, weather stripping and door panel seals included. It is a 4 way universal system with center lite panel with lockset included.

**White 3 inch aluminum door**
Item DOO1000 Each $382.20

PATCH TAPE
**Poly Patch Tape, 48 Feet**
- 2 inch Item PAT2000 Each $8.95
- 4 inch Item PAT4000 Each $17.95
- 6 inch Item PAT6000 Each $24.95

**Poly Patch Tape, 24 Feet**
- 10 inch Item PAT9999 Each $42.95

WHITE FELT TAPE
Provides a soft barrier between the greenhouse frame and cladding. Prevents heat from penetrating to poly sheet and degradation as film does not rub against the frame.

1/8” thick x 1 1/2” wide x 48’ long

**White Felt Tape**
Item TAP2000 1-9 $19.95
Item TAP2000 10+ $16.95

SHOP ONLINE AT CropKing.com
Greenhouse Supplies

Greenhouse Covering - Tufflite Film

Tufflite Infrared™ – a Tufflite greenhouse product designed to last up to three years. Contains both the Drip-Less feature and an additive that will delay the exit of infrared waves from the greenhouse, maintaining heat factors and saving energy.

- Reduced energy costs.
- Improved light diffusion reduces shadows.
- Improved night time heat retention allows for lower fuel bills.
- Rapid payback in fuel savings after only a few short months.

Combine the extraordinary clarity and light transmission of Tufflite IV with Tufflite Infrared and reap the rewards. Your combination double of Tufflite IV on the inside and Tufflite Infrared on the inside gives you:

- The highest light transmission.
- Anti-condensation protection.
- Energy savings.

6 mil IR/TEES Film, 4-year:
- 20’ x 100’ Item FIL2010 Roll 258.30
- 20’ x 130’ Item FIL2013 Roll 335.75
- 24’ x 100’ Item FIL2410 Roll 309.95
- 24’ x 130’ Item FIL2413 Roll 402.90
- 24’ x 150’ Item FIL2415 Roll 464.90
- 32’ x 100’ Item FIL3210 Roll 413.25
- 32’ x 130’ Item FIL3213 Roll 537.20
- 32’ x 150’ Item FIL3215 Roll 619.85
- 40’ x 100’ Item FIL4010 Roll 516.55
- 40’ x 130’ Item FIL4013 Roll 671.50
- 40’ x 150’ Item FIL4015 Roll 774.80
- 48’ x 100’ Item FIL4810 Roll 619.85
- 48’ x 130’ Item FIL4813 Roll 805.80
- 48’ x 150’ Item FIL4815 Roll 929.75

Tufflite IV™ – the one and only, original “super-clear” greenhouse covering. After all these years and all the imitators, Tufflite IV is still unmatched in PAR (photosynthetic active radiation) transmission.

- Retains Clarity – Tufflite IV stays clear – no discoloration or cracking. Even after three years, it looks practically new.
- Outstanding Durability – proprietory manufacturing yields tough sheeting that resists tears, punctures and UV degradation.
- Easy Installation – heavy duty packaging protects every roll and improved center slit folding makes installation fast and easy.

6 mil UVA Film, 4-year:
- 14’ x 100’ Item FIL1401 Roll $ 157.25
- 20’ x 100’ Item FIL2001 Roll $ 224.60
- 20’ x 130’ Item FIL2031 Roll $ 291.95
- 20’ x 150’ Item FIL2051 Roll $ 336.85
- 24’ x 100’ Item FIL2401 Roll $ 269.50
- 24’ x 130’ Item FIL2431 Roll $ 350.35
- 24’ x 150’ Item FIL2451 Roll $ 404.25
- 32’ x 100’ Item FIL3201 Roll $ 359.35
- 32’ x 130’ Item FIL3231 Roll $ 467.10
- 32’ x 150’ Item FIL3251 Roll $ 539.00
- 40’ x 100’ Item FIL4001 Roll $ 449.15
- 40’ x 130’ Item FIL4031 Roll $ 583.90
- 40’ x 150’ Item FIL4051 Roll $ 673.65
- 48’ x 100’ Item FIL4801 Roll $ 539.00
- 48’ x 130’ Item FIL4831 Roll $ 700.70
- 48’ x 150’ Item FIL4851 Roll $ 808.45

6 mil White UVA Film, 4-year:
- 24’ x 100’ Item FIL6240 Roll $ 296.45
- 32’ x 100’ Item FIL6320 Roll $ 395.30
- 40’ x 100’ Item FIL6400 Roll $ 494.15
- 48’ x 100’ Item FIL6480 Roll $ 593.00

One year overwintering Film
4 mil White Film, 70% Opacity:
- 24’ x 100’ Item WHI2410 Roll $ 120.10
- 24’ x 110’ Item WHI2413 Roll $ 132.10
- 24’ x 125’ Item WHI2425 Roll $ 150.15
- 24’ x 150’ Item WHI2415 Roll $ 180.10
- 24’ x 200’ Item WHI2420 Roll $ 240.20
- 32’ x 100’ Item WHI3210 Roll $ 160.10
- 32’ x 110’ Item WHI3211 Roll $ 176.15
- 32’ x 125’ Item WHI3225 Roll $ 200.15
- 32’ x 150’ Item WHI3215 Roll $ 240.20
- 40’ x 100’ Item WHI4010 Roll $ 200.15
- 48’ x 100’ Item WHI4810 Roll $ 240.20
- 48’ x 150’ Item WHI4815 Roll $ 360.30

Black Nursery Vapor Barrier
- 24’ x 130’ Item FIL1003 Roll $ 150.00

8 mil Polycarbonate
- H-Profile, 8MM Item POL1011 24 Feet $ 27.55
- U-Profile, 8MM Item POL1012 12 Feet $ 12.90
- 4 x 8’ Item POL1010 Roll $ 42.05
- 4 x 9’ Item POL1009 Roll $ 47.25
- 4 x 10’ Item POL1015 Roll $ 52.05
- 4 x 11’ Item POL1027 Roll $ 56.85
- 4 x 12’ Item POL1014 Roll $ 62.05
- 4 x 15’ Item POL1025 Roll $ 78.75
- 6 x 8’ Item POL1020 Roll $ 63.05
- 6 x 9’ Item POL1016 Roll $ 71.25
- 6 x 10’ Item POL1021 Roll $ 79.05
- 6 x 11’ Item POL1017 Roll $ 86.15
- 6 x 12’ Item POL1018 Roll $ 95.05
- 6 x 13’ Item POL1022 Roll $ 102.90

Film should not come into contact with PVC or chlorine bleach.

WIGGLE WIRE
Wiggle wire poly lock is easy to use and is an effective method of attaching your polyfim roof and/or shade cloth. Wiggle wire lock will hold from 4 mil to 20 mil thickness of material. Use one wire to hold the roof in place and then use a second wire to hold your shade cloth. When it is time to remove the shade cloth, you will not disturb the roof plastic.

Universal Base (WIG2000) is used on the top of the end arch to cap the end wall covering.

Standard Base (WIG1000) is used along the length of your greenhouse.

4 Foot Wiggle Wire, 1.25 inch wide
- Item WIG1002 Each $ 1.63

12 Foot Standard Wiggle Wire Base
- Item WIG1000 Each $ 12.00

24 Foot Universal Wiggle Wire Base
- Item WIG2000 Each $ 44.14

QUICKLOCK
QuickLock is our extruded aluminum poly locking device. It is designed to provide an attractive and efficient method of securing either single or double layers of poly greenhouse film. The base is screwed onto the baseboard of your greenhouse, as well as the end arches if desired. Then, the poly is laid over the base, pulled down to remove wrinkles, and then the top cap is snapped into place. Over 300 lbs. holding power per lineal foot.

10 Foot Quicklock Cap Only
- Item SUR1003 Each $ 10.10

10 Foot Quicklock Base Only
- Item SUR1004 Each $ 6.95

SUN CLEAR
Stops Condensation and Increases Light Transmission
When diluted and applied to dry plastic surfaces, such as flexible or rigid greenhouse coverings, prevents the formation of water droplets. As a result, the plastic remains clear, admitting up to 50% more light. Drying, which can be injurious to plants and is annoying to personnel, is eliminated.

For best results Sun Clear should be applied with a sprayer producing a forceful spray. Both new and old plastic materials can be treated. If new plastic is to be treated, Sun Clear is best applied 2 weeks after installation of the plastic this is to allow oxidation of oily residues on the new plastic to achieve maximum adhesion of Sun Clear. The Sun Clear coating reduces water surface tension, so that condensation occurs rather like a film and stops dripping.

Sunclear, 1 Quart
- Item SUN1000 Each $ 39.95
**SHADE**

**SHADE CLOTH**

Our shade cloth is a high quality, knitted shade net that resists tearing. Unlike woven shade cloth, our knitted shade net will not unravel at the edges or at a tear. It contains UV inhibitors and resists deterioration better than polypropylene. There is also less wind resistance due to the knitted construction. Other types, sizes and colors are available by custom order.

White shade cloth is ideal for cooler greenhouses as it keeps the heat off the plastic and allows more light in than black shade cloth. It is available in 40% and 50% shade, in rolls 26 x 130 foot, or can be customized. Please call your salesperson at 330-302-4203.

Add Seam Charge of .30 per foot for custom widths. $25 Minimum order fee may apply

### 40% White Shade Cloth

<table>
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<tr>
<th>Size</th>
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<td>26' x 130'</td>
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### 50% White Shade Cloth

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<td>SHA2017</td>
<td>$262.80</td>
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<td>26' x 130'</td>
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### 40% Black Shade Cloth

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<td>Per SqFt</td>
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### 50% Black Shade Cloth

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### 60% Black Shade Cloth

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### 70% Black Shade Cloth

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<tr>
<td>Per SqFt</td>
<td>SHA1042</td>
<td>$0.14</td>
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**ALUMINET® COOL SHADE**

ALUMINET is a special knitted screen made from metalized HDPE. The fibers are produced from mono-oriented HDPE, giving the fiber durability and longeviety. After an aluminum metallization process, the films are covered with a special antioxidation coating. The net is knit into a precise uniform texture; meets the ASTM-D 3887 standard.

**SPECIFY %**: Minimum order fee may apply.

- **30%**, **40%**, **50% Aluminet**, per foot

<table>
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<th>Item Code</th>
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<td>SHA3100</td>
<td>$0.34</td>
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**Ez Kool Ray Liquid Shade** is a liquid shading compound for coating greenhouse glass, fiberglass or polyethylene. Effectively controls the rays of summer sun and prevents burning or scalding of plants.

**Standard Dilution is 1500 Sq. Ft.**

**Ez Kool Ray Liquid Shade**, 1 Gallon

<table>
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<th>Item Code</th>
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</thead>
<tbody>
<tr>
<td>SHA1000</td>
<td>$28.50</td>
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**Our shade cloth is a high quality, knitted shade net that resists tearing. Unlike woven shade cloth, our knitted shade net will not unravel at the edges or at a tear. It contains UV inhibitors and resists deterioration better than polypropylene. There is also less wind resistance due to the knitted construction. Other types, sizes and colors are available by custom order.**

**Keep Unwanted Pests Out**

Decrease unwanted pests and expensive pesticide usage naturally!

U.V. stabilized Insect Screens correctly installed prevent insect penetration, yet provide maximum possible air flow that is essential for optimal crop yield.

All greenhouse openings including intake vents, service door, etc., should be screened for best results.

**Thrip Insect Screening**

- **134 inch Width and can be seamed**

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Each</th>
</tr>
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<tbody>
<tr>
<td>INS4000</td>
<td>$0.84 per square foot</td>
</tr>
</tbody>
</table>

**For a complete insect exclusion system for a CropKing Greenhouse**

Call for pricing at 330-302-4203
ROCKWOOL

- Proven to be as one of the best and most reliable growing medium available.
- Completely sterile rockwool provides an optimum air/water ratio for the roots, insuring an abundant supply of oxygen to the roots.
- Used among commercial vegetable and floral producers throughout the world.
- Available in propagation cubes, propagation blocks, mini-blocks, and growing slabs.

The AO25/40, AX25/40, and AO36/40 rockwool cubes are designed for seed and cutting propagation. The individually shaped individual “cells” within the pad allow for effective air pruning which encourages rooting within, rather than between individual blocks. Each of these cubes comes in a 10 x 19.5 inch sheet or “pad” and fits into a standard 10 x 20 inch flat.

Rockwool Cubes

The AO25/40 rockwool cube is slightly under 1 inch square at the top, and is slightly over 1-1/2 inch in depth. The hole on the AO25/40 is on the wide end of the cube. It is commonly used for starting lettuce and some herbs, and is designed to fit into the square holes in our NFT channel top covers. Each “pad” contains 200 cubes.

1 inch AO25/40 Cube, Pad of 200 Cubes
- Item ROC1004 Each $ 9.50

The AX25/40 has the hole on the narrow end of the cube, and is used for the same purposes as the AO25/40. Some growers prefer it because its base is wider and does not tip over as easily.

1 inch AX25/40 Cube, Pad of 200 Cubes
- Item ROC1006 Each $ 10.00

The AO36/40 rockwool cube is slightly under 1-1/2 inch square at the top, and is slightly over 1-1/2 inch in depth. The hole on the AO36/40 is on the wide end of the cube. It is commonly used for tomatoes, cucumbers, and peppers. Some growers prefer the large block which gives them the capability of holding the seedling longer before transplanting into the greenhouse.

1 inch AO36/40 Cube, Pad of 200 Cubes
- Item ROC1008 1-11 $ 176.70

Rockwool Blocks

Propagation or growing blocks, are used for holding the seedling transplants longer prior to putting them out onto the Bato bucket or rockwool slabs. Some of the blocks have “planting” holes already in them to accept the AO36/40 propagation cubes. The blocks are individually wrapped in UV resistant plastic on all four sides. The base of the propagation blocks is grooved to promote drainage.

The MM40/40 block is slightly over 1-1/2 inch square and comes in strips of 15 blocks, 150 strips per case. MM50/40 block measure slightly under 2 inches square and comes in strips of 12 blocks, 150 strips per case. Each block is wrapped on the four sides and has a hole punched in one end. This block is not tapered like the AO25/40 or AO36/40. The MM40/40 is used primarily for propagating cuttings. The MM40/40 has a 6/15 hole for seeds or cuttings.

1-1/2 inch MM40/40 Cube, Pad of 98 Cubes
- Item ROC1006 Each $ 9.83

The MM50/40 block is slightly over 1-1/2 inch square and comes in strips of 12 blocks, 150 strips per case. Each block is wrapped on the four sides and has a hole punched in one end. This block is not tapered like the AO25/40 or AO36/40. The MM50/40 is used primarily for propagating cuttings. The MM50/40 has a 6/15 hole for seeds or cuttings.

1-1/2 inch MM50/40 Cube, Pad of 98 Cubes
- Item ROC1011 Each $ 177.90

The DM4-G propagation block is 4 inch square by 2-1/2 inch deep. It has a hole to accept the AO36/40 cube. It is also used for tomatoes, cucumbers, and peppers. Some growers prefer the large block which gives them the capability of holding the seedling longer before transplanting into the greenhouse.

4 inch DM6-G 42x40 Block with 2-1/2 inch Holes
- Item ROC1019 Each $ 0.60

Vital Slabs

5.9 x 3 x 39.4 inch slab
- Item ROC1000 Each $ 5.81

The DMG-G propagation block is 4 inch square by 2-1/2 inch deep. It has a hole to accept the AO36/40 cube. It is also used for tomatoes, cucumbers, and peppers. Some growers prefer the large block which gives them the capability of holding the seedling longer before transplanting into the greenhouse.

Customer Service: Call CropKing at 330-302-4203
Shipping costs vary on all growing medium. Call CropKing at 330-302-4203
LECA STONE

Hydro Rokz maintains perfect air-to-water ratio promoting vigorous root development so plant roots stay healthy and oxygen rich. Rokz unique shape provides a strong structure and a staple base for plant roots while allowing water to drain freely providing maximum oxygen to the root zone, preventing rotting and excess acidity. Hydro Rokz's porous inner core absorbs water and nutrients releasing them to the plant as required.

40 Liter Leca Stone
Item LEC1005 Each $19.95

Burlap for Microgreens
Untreated Agricultural Grade. Price per roll

PERLITE GROW BAGS

Horticultural perlite has an excellent record as a propagating and growing medium. Since it is free draining, it is also extremely well-aerated. Its neutral pH, negligible nutrient content, and freedom from pests, pathogens, and weed seeds combine to make it an excellent growing medium for hydroponic culture. Each bag, approximately 42 inch long and 8 inch in diameter, is sealed and designed to hold three tomato plants.

Empty Perlite Grow Bag, 3 mil
Item PER1001 Each $0.82

Empty Perlite Grow Bags, 3 mil, Case of 250
Item PER1001 1-4 $97.50
Item PER1001 5-9 $95.00
Item PER1001 10+ $92.50

Perlite Bag Sealer, 12 inch with a 3 mm thick seal
Item PER4001 Each $78.40

Filled Perlite Grow Bag (1-1/3 cubic foot of perlite)
Item PER3000 1-100 $6.75
Item PER3000 101-999 $5.80
Item PER3000 1000+ $5.45

5 GALLON POLY GROW BAGS

Poly grow bags are a great, inexpensive container for your plants. The white exterior reduces heat build-up and the black interior keeps light from root growth. 400 bags in a case.

Cost efficient and simple disposal. Size: 9W x 8L x 17-1/2H inches

Grow Bag with Holes, white/black
Item BAG3001 1-499 $0.50
Item BAG3001 500-999 $0.36
Item BAG3001 1000-2499 $0.33
Item BAG3001 2500+ $0.29

OASIS HORTICUBES

A low density, high-drainage foam, Oasis Horticube growing medium is specifically engineered for hydroponics seed germination of vegetables and herbs. This growing media is designed to drain off excess water from the base of the seed, allowing an optimal balance of oxygen and water, even when the foam is completely saturated. Horticube growing medium is sterile upon receipt and provides a clean start, pathogen-free, environment which reduces disease and insect problems for plant germination.

• Pre-dibbled holes make it easy to set the seed into place in the media
• Case of 20 sheets

Thincut 276ct. Single Dibble
Item OAS1100

Thincut 276ct. Multi Dibble
Item OAS1500

Regular 162ct. Single Dibble Bottom Groove
Item OAS2500

1 1/2" 50ct. Single Dibble, Bottom Groove
Item OAS3500

1 1/4" 104ct. Multi Dibble, Top Groove
Item OAS4200

1 1/4" 104ct. Single Dibble, Bottom Groove
Item OAS4500

Pricing
OAS3500 & OAS4500 have no quantity breaks

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<th>Quantity Range</th>
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Growing Accessories

**LIGHTS**

**GLX**


- 8 foot Power Cord with 240v Plug
- Warranty: 2-Year Ballast; 1-Year Reflector and Bulb
- Ships in 3 boxes

**Magnetic Ballast 1000W Halide**

- Ships in 3 boxes
- Warranty: 2-Year Ballast; 1-Year Reflector and Bulb
- 8 foot Power Cord with 240v Plug
- Includes fluorescent 6400K tube

**GLX Lens System**

- Includes fluorescent 6400K tubes
- 2.75”H x 19.75”W x 46.25”L

**T5 4FT 8 Bulb Fixture with Bulbs**

- Dual On/Off switches allow you to control the amount of lumens as needed (6 and 8 tube models only)
- Powder coated steel housing
- Low profile
- Hangs 3 ways - overhead, vertical, or horizontal
- 10’ grounded power cord
- Includes fluorescent 6400K tubes
- 3”H x 39”W x 46”L

**T5 4FT 12 Bulb Fixture with Bulbs**

- 3”H x 39”W x 46”L
- Rated up to 60,000 lumens
- Includes 12 54W HO T5 tubes (6400k)
- Multiple on/off switches on 6, 8, and 12 tube fixtures allow you to control the amount of light output/coverage as needed
- High efficiency specular aluminum for maximum reflectivity
- Powder coated steel housing
- Hangs 3 ways - overhead, vertical, or horizontal
- 10’ grounded, 120 volt power cord

**T5 4FT 4 Bulb Fixture with Bulbs**

- Powder coated steel housing
- Low profile
- Hangs 3 ways - overhead, vertical, or horizontal
- 10’ grounded power cord
- Includes fluorescent 6400K tubes
- Rated up to 18,800 lumens
- 3”H x 13”W x 46”L

**T5 4FT 6 Bulb Fixture with Bulbs**

- Dual On/Off switches allow you to control the amount of lumens as needed (6 and 8 tube models only)
- Powder coated steel housing
- Low profile
- Hangs 3 ways - overhead, vertical, or horizontal
- 10’ grounded power cord
- Includes fluorescent 6400K tubes
- 2.75”H x 19.75”W x 46.25”L

**Commercial DE Open Lighting System, 240V**

- DE1000Zh Reflector: Hydrofarm engaged a renowned American lighting engineer to design the most efficient DE Enclosed type reflector on the market. This reflector delivers focused light, and effectively dissipates heat while operating the DE bulb at ideal temperatures, for maximum light output and lamp life.
- Double-ended system delivers higher PAR value with incredible uniformity
- Enclosed design for maximum focused light output, optimum heat management, and longer lamp life
- Highly efficient in overlapping multi-light configurations
- Premium aluminum European hammer-tone interior: 99.85% pure, 95% reflectivity
- European-made V5 K12 x 305 high temperature lamp holders
- DE Bulb: This package features a European made premium DE lamp with a rated PAR output of 2100 umol

**LED**

**Intense Light, Intense Savings**

The powerPAR Greenhouse LED Fixture, available in three power variations (530W, 390W, and 185W), delivers a higher PPFD (usable light that actually reaches the plant) per watt value to the plant canopy than other equivalent LED greenhouse fixtures. The powerPAR’s scientifically developed horticultural growth spectra and proprietary, patented optics ensure that nearly every single watt of energy is used for optimum plant growth and the highest yields.

- All aluminum construction with white gloss finish protects against corrosion in humid environments
- Patented Digital DistributionTM optical technology ensures that 65% of the light emitted is contained in the grow space
- Two-part, high-temperature silicone potting protects against corrosion and prevents heat dissipation
- Dual, high-temperature silicone potting protects against corrosion and prevents heat dissipation
- ETL/Etl listed for damp locations
- 50,000 hour life to L70
- Made in USA

**LED**

**powerPAR 200W Greenhouse LED Fixture**

LIG6020 $889.95

**powerPAR 400W Greenhouse LED Fixture**

LIG6040 $1049.95

**powerPAR 600W Greenhouse LED Fixture**

LIG6060 $1499.95

**Commercial DE Enclosed Lighting System, 240V**

- DE1000Zh Reflector: Hydrofarm engaged a renowned American lighting engineer to design the most efficient DE Enclosed type reflector on the market. This reflector delivers focused light, and effectively dissipates heat while operating the DE bulb at ideal temperatures, for maximum light output and lamp life.
- Double-ended system delivers higher PAR value with incredible uniformity
- Enclosed design for maximum focused light output, optimum heat management, and longer lamp life
- Highly efficient in overlapping multi-light configurations
- Premium aluminum European hammer-tone interior: 99.85% pure, 95% reflectivity
- European-made V5 K12 x 305 high temperature lamp holders
- DE Bulb: This package features a European made premium DE lamp with a rated PAR output of 2100 umol

**HID**

The Commercial DE Lighting System is state-of-the-art double-ended technology that uniformly delivers optimum PAR value. The Commercial DE Lighting System gives you the unique ability to remove the ballast from the reflector so it can be used remotely, allowing you to operate the ballast outside of your grow room, to effectively reduce heat load.

The Phantom Ballast Commercial DE drives maximum PAR value. This ballast is designed with a high precision microprocessor that makes it totally silent, lightweight, highly efficient, and extremely reliable.

- High frequency design optimized for double-ended 1000W lamps
- High-precision microprocessor control
- Four-way dimming: 60%, 75%, 100%, and Super Boost (up to 1150W lamp output)
- Robust commercial design
- Superior reliability
- LED status indicator
- Internal RF shielding
- Patented ignition control
- End of lamp life signal
- Auto restrike feature protects valuable lamps from damaging power interruptions
- Cooling fins for maximum heat dissipation
- Suitable for use in damp locations
- Features an IEC power connection and comes with a 8’ 240V 16/3 AWG power cord

**LIG0018 $199.95**

**LIG0019 $333.95**

**LIG0037 $26.95**

**LIG0016 $124.95**

**LIG0017 $162.95**

**Item LIG7502 Each $235.00**

**Item LIG7503 Each $74.95**

**Item LIG7504 Each $49.95**

**Item LIG7501 Each $14.95**

**LIG00018 $199.95**

**LIG00019 $333.95**

**LIG00037 $26.95**

**LIG00016 $124.95**

**LIG00017 $162.95**

**LIG0000 $424.95**

**LIG6000 $424.95**
Trays

Seedling Starter Tray holds 72 seedlings
Item TRA0072 Each $1.70

10/20 Seed Tray with Holes
Item TRA1100 1-50 $1.40
10/20 Seed Tray with Holes, Case of 100
Item TRA1100 1-9 $122.00
Item TRA1100 10+ $117.00

10/20 Seed Tray without Holes
Item TRA1101 1-50 $1.40
10/20 Seed Tray without Holes, Case of 100
Item TRA1101 1-9 $122.00
Item TRA1101 10+ $117.00

Web Seedling Tray
Item TRA1104 1-50 $1.00
Item TRA1104 51-200 $0.95
Item TRA1104 201+ $0.90

Humidity Domes

Domes fit on standard and rapid rooter starter trays and keep seedlings or clones moist until they develop root systems. We recommend using these and propagation mats for a fast healthy start with seeds or clones.

2-1/2 inch Humidity Domes
Item DOM3000 Each $2.50

7 Inch Humidity Domes
Item DOM6000 Each $6.50

Net Pots

Net pots are used in hydroponics with several types of growing media for either seeding, propagation, or growing on NFT or artificial media systems. They are excellent to use in science fair projects since the root system can remain visible when lifted out of the nutrient solution. With net pots, root growth can be monitored and demonstrated easily, without damaging the roots.

2 inch Net Pot
NET1000-E 1-100 $0.20
NET1000-E 101-999 $0.10
NET1000-E 1000+ $0.05

2 inch Net Pot, Case of 5,418
Item NET1000 Case $230.85

First Name of Contact

Propagation Heat Mats

The HEAVY DUTY modular commercial heat mats will provide uniform heat for hundreds of seedlings or cuttings. Bottom heat is one of the most important and effective ways to improve germination and rooting.

• Increases success of seedlings and cuttings
• Warms root area 10-20˚F over ambient temperature to improve germination
• Light, watering and planting information on mat
• Waterproof construction
• 6 foot power cord
• The only UL Listed seedling heat mats on the market!
• 50% thicker construction
• Rugged and durable with waterproof connectors
• Plug into Digital Heat Mat Thermostat (required, sold separately)

60 x 21 inch Propagation Heat Mat, 140 watts, can add up to 4 add-on units
Item PRO6000 Each $129.95

Add-On Propagation Heat Mat, 140 watts
Item PRO6001 Each $114.95

20 x 20 inch 2 Tray Propagation Heat Mat
Item PRO1002 Each $46.95

48 x 20 inch 4 Tray Propagation Heat Mat
Item PRO1000 Each $79.95

Thermostat for Propagation Heat Mats

Thermostat for use with propagation heat mats. It keeps the propagation mat set at the proper temperature for optimum seed germination and cutting growth. Unit plugs into the mat in a receptacle on the backside.

• Digital temperature controller for heat mats
• Provides constant optimum temperatures for specific crops
• Controls temperature in colder or warmer environments
• Illuminated indicator light; 3-prong ground plug

Digital Thermostat, 1 Plug
Item THE1000 Each $39.95

Berry Seeder Complete System includes seeder, both seeder plates, dibbler, inspection light, seed hopper with stand, and shopVAC.

Complete Seeder System
Item SEE1000 Each $1100.00

Seeder System with Base (plate not included)
Item SEE1001 Each $585.00

200 Seed Base Plate for Pelletized Seeds
Item SEE1002 Each $195.00

200 Seed Base Plate for Precision Seeds
Item SEE1003 Each $210.00

Dibbler Plate
Item SEE1004 Each $210.00

* additional sized plates available
**DIGITAL TIMER**

**Multiple Purpose 2-Outlet**

**Digital Timer**
- For Indoor use only
- Variable ON/OFF times up to +15 minutes for added security.
- Auto adjusts sunset/sunrise time for dusk/dawn setting.
- Automatic Daylight Saving Time Option.
- Battery backup with low battery indicator.
- up to 28 ON/OFF settings.
- 2 timed receptacles.
- Sunrise, sunset, daily, weekday, weekend options.

Limited one year warranty

**Intermatic Digital Timer**

Item TIM2008  Each $ 34.95

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**IRRIGATION TIMER**

- Six independent programs can run concurrently
- Up to 9 daily cycle starts per program; or, loop watering optional in all 6 programs for unlimited cycles
- Station timing adjustable from one minute to 24 hours in one minute increments
- Automatic, semi-automatic, manual, and timed manual operation
- Programmable “system check” cycle that can be initiated at any station
- Non-volatile memory holds program information during power outages of any length
- 10 year lithium battery (included) keeps real-time during power outages of any length

**Sequence Timer:**

- 4 Station  
  Item SEQ0050  Each $ 420.45
- 8 Station  
  Item SEQ1000  Each $ 460.80
- 12 Station  
  Item SEQ1001  Each $ 518.75
- 18 Station  
  Item SEQ1002  Each $ 705.00

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**ARKAL FILTERS**

3/4 inch Arkal Filter, 140 Mesh:
  - Item STR1009  Each $ 25.00
1 inch Arkal Filter, 140 Mesh:
  - Item STR1010  Each $ 79.00

3/4 inch Replacement Cartridge, 140 Mesh:
  - Item STR1013  Each $ 16.00
1 to 1-1/2 inch Black Replacement Cartridge, 140 Mesh:
  - Item STR1011  Each $ 38.00
1 to 1-1/2 inch Red Replacement Cartridge, 120 Mesh:
  - Item STR1018  Each $ 38.00
Replacement O-Ring for 3/4 inch Arkal Filter
  - Item STR1016  Each $ 3.50
Replacement O-Ring for 1 inch Arkal Filter
  - Item STR1015  Each $ 5.00

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**SOLENOID VALVE**

Heavy duty design for long life, versatile performer. Excellent for use in drip systems because it operates well at extremely low flow.

**1 inch Solenoid Valve**, 24 Volt, PVC

Item SOL4000  Each $ 31.00

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**TANKS**

- 25 Gallon Polyethylene Nutrient Tank and Lid  
  Used for Small Home Systems  
  Item TAN2001  Each $100.50

- 52 Gallon Polyethylene Tank and Lid  
  Used for CropKing’s Fertroller, Injection Systems, and as a nutrient mixing tank  
  Item TAN3000  Each $189.95

- 4’ x 8’ x 12” Aqua Blue Polyethylene Tray  
  Used for 200 Gallon Aquaponics System Tray  
  Item TAN4000  Each $520.00

- 200 Gallon Blue Round Polyethylene Tank  
  Used for Aquaponics System Tank  
  Item TAN4001  Each $370.00

- 300 Gallon Blue Round Polyethylene Tank  
  Used for Aquaculture System Tank  
  Item TAN4002  Each $430.00

- 3 Quart Round Polyethylene Tank and Lid  
  Used for Fertroller sample pot  
  Item TAN4003  Each $24.50

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**Growing Accessories**

**50 Mesh Strainer**

- Item STR3003  Each $ 95.00

**1-1/2 inch Strainer Screen, 100 Mesh**

- Item STR1003  Each $ 25.95
- Item STR1006  Each $ 25.95
- Item STR1007  Each $ 24.85

**Replacement O-Ring for 1-1/2 inch T-Strainer**

- Item STR1012  Each $ 3.25

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**T S Trainer**

Use a T strainer on the inlet and/or outlet side of your nutrient pump to strain out any debris that may find its way into the nutrient tank. This commercial grade strainer may be easily cleaned and flushed. The 1-1/2” strainer comes with a 100 mesh nylon screen.

**1-1/2 inch T Strainer, 100 Mesh**

Item STR1000  Each $ 82.45

**1-1/2 inch Clear Cartridge Cover**

Item STR1001  Each $ 44.35

**1-1/2 inch Black Filter Cover**

Item STR1005  Each $ 8.85

**2 inch Black T Strainer, 100 Mesh**

Item STR3000  Each $ 138.60

**100 Mesh Strainer**

Item STR3001  Each $ 94.30

**O-Ring for STR3000**

Item STR3002  Each $ 3.50
SUBMERSIBLE PUMPS

NK Little Giant Pumps are for commercial, industrial, and home use worldwide where liquid must be transferred or recirculated. Applications include aquariums, swimming pools, water displays, ice makers, air conditioners, boat bailings, fuel oil transfer, circulating water for welding and pipe threading machines, pumping mild chemicals such as soap solutions, acids, plating solutions and fertilizers.

NK1 Little Giant Pump
• 210 GPH @ 1 ft
• Operates submersed
• Corrosion-resistant nylon housing
• Sump-type screened inlet
• 1/4” MNPT outlet accepts 1/2” I.D. tubing
• Thermally protected
• 70 watts, 1 Amps
• 4.13 x 0 x 4.56 inch LWH
• 3.67 pounds
Item PUM1000  Each $ 85.00

NK2 Little Giant Pump
• 325 GPH @ 1 ft.
• Operates submersed.
• 6’ cord
• Corrosion-resistant nylon housing
• Five position options
• 1/4” MNPT outlet accepts 1/2” I.D. tubing
• Thermally protected
• 100 watts, 1.7 Amps
• 4.13 x 0 x 4.56 inches LWH
• 4.5 pounds
Item PUM2000  Each $ 103.00

The Active Aqua is designed to run completely submerged in water. It may be utilized in either fresh water or saltwater, but not in foreign fluids, flammable liquids, or any chemical; also used for mixing. 1/2 inch discharge. Aeration Kit included.

400 GPH Submersible Pump
Item PUM8000  Each $ 26.95

1000 GPH Submersible Pump
Item PUM8200  Each $ 69.95

CIA Little Giant Pumps
Applications include commercial, industrial, and home uses where liquid must be transferred or recirculated.

6 CIA Little Giant Pump
• 1/3 hp shaded pole motor with overload protection
• Designed for continuous duty
• Epoxy coated cast iron housing
• 1-1/4” (31.7 mm) adapter and 3/4” (19 mm) garden hose adapter available
• Carbon/ceramic shaft seal
• Upper and lower sintered sleeve bearings
• cCSAus listed
• 720 watts, 9 amps
• 17.5 pounds
• 46 GPM at 5 foot
Item PUM3000  Each $ 177.85

8 CIA Little Giant Wet Wall Pump
• 4/10 hp shaded pole motor with overload protection
• Designed for continuous duty
• Epoxy coated cast iron housing
• Carbon/ceramic shaft seal
• Upper and lower sintered sleeve bearings
• cCSAus listed
• 1-1/2 inch FPT discharge
• 830 watts, 10 amps
• 9.5 x 8.5 x 6 inches LWH
• 18.75 pounds
• 54 GPM at 5 foot
Item PUM3100  Each $ 251.30

DOLPHIN PUMPS

Dolphin Super Amp Master

1/3 HP Dolphin Super AMP Master Marine
Item PUM7500  Each $ 446.00

1 HP Dolphin Aqua Sea 9250 Pump
115v
Item PUM8300  Each $ 522.00

1 HP Dolphin Aqua Sea 9500 Pump
230v 50/50Hz
Item PUM8400  Each $ 522.00


3 HP Dolphin Super Aqua Sea 12,500 Pump
115v or 230v (must specify)
Item PUM8700  Each $ 580.00

CROPKING INJECTOR SYSTEM PUMP

• All stainless steel pump head
• 115 Volt
• 1-1/4 inch inlet, 1 inch Outlet
• Open impeller for solids handling, or enclosed impellers for higher heads and efficiencies American Stainless pumps have a one-piece shell with an internal design that prevents air from being trapped in the pump case. These pumps do not have a volute design case which can put a radial load on the motor bearing. There is no diffuser to plug up or wear out.

3/4 HP SSPI Pump, 60 Hz, 115v, Single Phase
Item PUM5001  Each $ 680.00

1-1/2 HP SSSPCI Pump, 50/60Hz, Single Phase
Item PUM5002  Each $ 755.00

Feed Pump Adaptor, 1-1/4 x 1 inch Reducer
Note: To convert the pumping from PUM5000 to PUM5001
Item PUM5010  Each $ 9.95
LETTUCE CRISPER

Keeps lettuce fresh and prevents damage from handling in the grocery store. One piece, crystal clear crisper has hinged lid and has a cup in the bottom for the roots. It is also ideal for basil. Made from PETE material.

- 7-3/4 x 7-1/4 x 5-1/4 inches
- Dimensions LxWxH

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LETTUCE BOX

Our one piece lettuce box is designed for quick and easy fold-together assembly. It is pre-printed with green lettering on a white background and will hold 20 heads of hydroponic bibb lettuce. Use with our white lettuce box liners. Quantities of 5,000 or more could be custom printed.

- **Lettuce Bulk Pack Box**, Minimum of 1,200 - Size: 24 x 16 x 8-1/4 inches LWH
  - Item BOX3000 1200 $ 3.40
  - Item BOX3000 1201-2399 $ 3.25
  - Item BOX3000 2400+ $ 3.15

- **White Lettuce Box Liner**, Roll of 500
  - One sheet of liner is 54” x 45”
  - Item LIN0500 Each $ 123.65
  - 10+ $ 121.00

TOMATO PACKAGING

It is low cost, and very simple to use. It is a brown, one piece box with red and black printing, and the top is open allowing easy viewing of the tomatoes. End tabs allow easy stacking.

- **10 Pound Open Tomato Box**, Skid of 500
  - Size: 19-1/4 x 13 x 3-1/2 inch LWH
  - * Minimum order of 1000
  - Item BOX1011 1-999 $ 3.00
  - Item BOX1101 1000-2499 $ 1.70
  - Item BOX1011 2500-4999 $ 1.55
  - Item BOX1011 5000+ $ 1.40

- **15 Pound Open Tomato Box**, Skid of 520
  - Size: 23 x 15 x 3.5 inch LWH
  - Item BOX3001 1040 - 2499 $ 2.10
  - Item BOX3001 2500+ $ 1.95

CUCUMBER LABELS

Identify Locally Grown Gourmet Cucumber and includes bar code.

- **Cucumber Label**, Roll of 2,000
  - Item LAB2000 1-19 $ 26.95
  - Item LAB2000 20+ $ 21.60

Custom Labels Available

Approved art needed.
Call for custom labels at 330-302-4203.

50 roll minimum on Tomato Labels
25 roll minimum on Crisper Labels
**pH TESTING**

Because of the importance of the pH in hydroponic solutions, we believe it is advisable to have an accurate and reliable means of determining the pH of the solution. This inexpensive pH test kit is ideal for testing nutrient solutions for pH. It is used by many commercial growers and is often preferred over the more expensive pH meters that are available. The kit comes complete with an accurate Fisher pH Color Chart, Bottle and Eyedropper, two glass testing vials, pH indicator solution, and instructions. Note: This is not like a swimming pool pH kit – the accuracy of this kit is far superior. The color chart consists of a number of transparent gelatin preparations showing the color of the solution at each pH division and each half division from 5.5 to 9.5. The gelatin color blocks are more accurate and easier to use than charts printed with colored ink.

**Fisher pH Test Kit**

- Item PHK1000 Each $ 72.80**

**BlueLab Combo Meter**

A conductivity, pH and temperature meter all in one. It comes with a pH probe and conductivity/temperature probe (reads in both EC and PPM), which are simply placed into the solution and the selected reading is displayed on screen. As the Blue Lab Combo Meter is portable and does not require a power supply to operate, it can be used anytime and anywhere to help you manage your crops daily nutrient requirements.

- Item PHM3000 Each $ 260.00
- Item PHM3001 Each $ 65.00

**BlueLab Guardian Monitor**

The BlueLab Guardian Monitor Connect is not only a constant indicator of the desired levels of pH, conductivity and temperature of your nutrient solution, it also data logs these critical parameters to your computer for you. It does not stop there. You can access the data via the cloud from a remote mobile device or computer to check for extreme variances to ensure these critical parameters are hitting the mark for crop success. Just one BlueLab Connect Stick is required to receive wireless data from one or more Guardian Monitor connects. For remote or cloud access, the computer you are already data logging to will need permanent internet access.

- Item PHM3002 Each $ 295.00

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**Use conductivity standard for verifying, calibrating, or adjusting the readings on your conductivity meter. Standard expected reading 2.00 millimhos/cm.**

**TDS CONDUCTIVITY STANDARD**

- TDS Standard, 1/2 Pint Item TDS1001 Each $ 7.50
- TDS Standard, 1 Pint Item TDS1002 Each $ 10.50

**REFRACTOMETER**

Check sugar content of ripening fruit

Easily calibrated, the refractometer measures from 0-32% Brix, with +0.5% accuracy, with or without automatic temperature compensation. Simply place one or two drops of fruit or vegetable juice on the scale and read the results in Brix percentages through the shaded area on the eyepiece. Includes case and instructions.

- Item REF1000 Each $ 54.00

**Bluelab Guardian MonitorConnect**

The BlueLab Guardian Monitor Connect is not only a constant indicator of the desired levels of pH, conductivity and temperature of your nutrient solution, it also data logs these critical parameters to your computer for you.

**Guardian Monitor Connect**

- Item PHM3005 Each $ 375.00

**Connect Stick**

- Item PHM3006 Each $ 120.00

**Connect Range Extender**

- Item PHM3007 Each $ 125.00

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**pH SUPPLIES**

**pH Test Strips**, 100 Pack
- Item PHK1020 Each $ 30.00

**pH Buffer Solution 4.0**
- 1/2 Pint Item PHB1000 Each $ 7.50
- 1 Pint Item PHB1001 Each $ 10.50

**pH Buffer Solution 7.0**
- 1/2 Pint Item PHB1003 Each $ 7.50
- 1 Pint Item PHB1004 Each $ 10.50

**Fisher pH Color Chart**

- Item PHK1001 Each $ 65.00

**pH Eyedropper Bottle**

- Item PHK1003 Each $ 4.50

**pH Eyedropper Bottle with Indicator Solution**

- Item PHK1004 Each $ 5.25

**pH Indicator Solution**, 1 Pint

- Item PHI1001 Each $ 59.95**

**pH Indicator Solution**, 1 Quart

- Item PHI1002 Each $ 109.00**

**pH Test Vials**

- Item PHK1002 Each $ 0.70

**CLEANING KITS**

**BlueLab pH Cleaning Kit**

Includes detailed instructions, decanter vessels, probe cleaner, cleaning tool, toothbrush, and calibration solutions

- Item PHM3100 Each $ 19.95

**BlueLab EC Cleaning Kit**

Includes detailed instructions, decanter vessel, probe cleaner, probe chamois, and conductivity standard solution.

- Item PHM3200 Each $ 9.95

**KCl Storage Solution 100ml**

We know it is extremely important to care for and store pH probes correctly. pH probes are sensitive glass instruments which age through normal use. The life and performance of pH probes is reduced heavily when they are used or stored dry. BlueLab pH Probe KCI Storage Solution is made specifically for use with BlueLab pH products. It is designed to increase response time and maximize the life of BlueLab pH pens and pH probes. For best results, use the KCl solution to store the pH pen/probe after use and hydrate monthly. Instructions are on the bottle label. BlueLab pH Probe KCI Storage Solution is manufactured specifically for BlueLab products are NIST certified and are made to a traceable standard to ensure your BlueLab products last longer and maintain accuracy.

- Item PHM3400 Each $ 9.95

*See page 49 for PH Control solutions*
iGrow 1400™
Greenhouse Environmental Manager

The compact, highly versatile iGrow 1400™ represents state-of-the-art greenhouse environmental automation. Using the iGrow1400 you can easily integrate and control virtually every piece of equipment in your greenhouse, giving you powerful control of the heating, cooling, shading, venting, humidity and irrigation. All of these functions are integrated into one easy-to-use system.

The iGrow 1400 features 12 relay outputs, 2 alarm outputs, 8 sensor inputs, and manual override switches to control all your greenhouse equipment. It has intelligent heating/cooling, humidity, CO2, shading, vent, bottom heat, HID lighting and irrigation control to create the perfect environment for your plants. Advanced features like 12 stages of heating/cooling, stage overrides, 4 setpoints that can be adjusted, flexible dehumidification control, heat boost, up to 30 day historical data storing, and smart irrigation make this the perfect controller for all your greenhouse needs.

The iGrow1400™ comes in a watertight NEMA4 clear lockable enclosure to protect it from moisture and prevent rust. The iGrow1400™ is also the first controller of its kind to have a context-specific “HELP” button on the front panel to give you helpful hints as you use the controller. The controller can be programmed or monitored via its own control panel, or through your computer (minimum Windows 2000 operating system) through the use of the optional iControl Software. A USB port makes it easy to connect your laptop to the system for programming, downloading historical information or troubleshooting. Should the need arise for analysis or troubleshooting, CropKing technical staff can access your iGrow1400 remotely once you grant access to the system.

- Enclosure is a white, NEMA 4, watertight case with clear lockable cover(9 x 9 x 4inch)
- 12 relay outputs, all user-definable
- Mechanical interlock jumpers for adjacent channels
- Bus jumpers for wet contact outputs (e.g. 24VAC)
- Backlit graphical display
- Keypad for local programming
- 2 alarm outputs – dry contacts – compatible with Sensaphone telephone autodialer
- 8 analog sensor inputs
- 4 serial communication channels
- 11 digital inputs
- Manual override switches and green LED status lights for each relay output
- Red LED alarm status lights
- Powered by 12 volt DC external power supply

iGrow 1400 with Digital Temperature/Humidity Sensor

Item IGROW1400THS Each $ 2250.00

iGrow 1400 Environmental Controller Only

Item IGROW1400 Each $ 2050.00

iGrow Environmental Control Software
(Minimum Windows 2000 Operating System)

Item IGROWICONTROL Each $ 1030.00

iGrow Weather Station

Item IGROWWEASTA Each $ 1230.00

iGrow Solar Light Sensor

Item IGROWSOLAR Each $ 245.00

iGrow Bottom Heat and Water Temperature Probe with 50 ft Cable

Item IGROWTEMP Each $ 192.00

iGrow Digital Temperature and Humidity Sensor

Item IGROWDTHS Each $ 298.95

iGrow 2-24 Cable, per foot

Item IGROW224CABLE Each $ 0.80

iGrow 4-24 Cable, per foot

Item IGROW424CABLE Each $ 0.90

CO2 Transmitter

Item CO2GMW25 Each $ 435.00

CUSTOM PRE-WIRED ELECTRICAL PANEL

with pre-mounted environmental controls

CropKing offers a pre-wired electric panel for your greenhouse, built to your specifications to integrate the heating, cooling, or irrigation equipment.

Features:
- CropKing features the iGrow 1400 by Link 4 as the environmental controller.
- The iGrow is pre-mounted and programmed to best operate your particular greenhouse operation.
- 100 or 200 Amp Main breaker panel, Single or Three Phase
- Separate relay panel with terminal strip connections for all equipment (each connection is clearly marked)
- Wiring diagrams included for all equipment in the greenhouse
- Indoor rated electrical enclosures used as standard equipment

Options:
- NEMA/4 rated (watertight) enclosures
- Backup generator transfer switches
- Sensaphone alarms systems

Call for an equipment specification worksheet for your greenhouse. This allows us to accurately quote the electrical panel for your operation.

Electrical Panel

Item ELE2000 PRICED PER QUOTE

Our Sales Staff Can Assist You...
We offer retrofit growing systems for any size greenhouse. Our sales associates will help you with your layout; our engineering staff will design a system for your current structure. Hydroponic seed varieties, nutrients and growing media are available.

Please call us at 330-302-4203 and ask to talk with one of our helpful sales people.
CERTIFIED HYGROMETER
The Abbeon Certified Hygrometer is a high quality instrument certified to be accurate within ±2%. The dial indicates the complete range of 0 to 100% relative humidity and each instrument has been tested at three different positions of the dial at temperatures ranging from 32° to 230°F.

**Certified Hygrometer**
- Item HYG1000  Each $ 180.00

THERMOMETER
5460 Indoor/Outdoor Minimum/Maximum Thermometer
Features highest and lowest daily temperature records, large easy-to-read face, convenient push-button reset and temperature range from -40°F to 120°F.

**Taylor Thermometer**
- Item THE1002  Each $ 31.50

**Precision Thermometer**
- Item THE1003  Each $ 32.50

**Dial Thermometer**, 8 inch Stem
- Item THE1006  Each $ 31.50

CO₂ GENERATOR
As you know, the shorter daylight hours of winter limit plant growth. To bring this growth to a maximum rate, it is essential to not only provide normal summertime CO₂ saturation rate but to “fertilize” the air with additional CO₂. Plants can use more CO₂ than normal atmosphere provides. And the more they use, the faster they grow. Our low cost generator provides the necessary CO₂ to speed up plant growth during the shorter daylight hours of winter. Plant quality is also improved as you add low cost warmth to your greenhouse.

**CO₂ Generator**, Propane
- Item COG2000  Each $ 795.00

**CO₂ Generator**, Natural Gas
- Item COG2001  Each $ 795.00

SENSAPHONE 400 Monitoring System
**Built-in Features**
- Four user-selectable inputs, temperature or dry-contact
- Voice messages for each of the input alarms can be customized. User can record messages through unit’s built-in microphone
- Microphone monitors high sound alarms and enables remote listen-in
- AC power failure sensing with variable recognition time
- Phone circuit monitors the integrity of the phone line. If phone line is cut or disconnected, an LED will flash and optionally the output relay can be tripped at the same time for a local indication of a problem
- Battery condition monitor; backup power via C cell batteries accessible from front of unit
- Standard power plug so that power cord can be easily removed and fed through enclosure openings
- Clock

**Sensaphone, Model 400**
- Item SEN0400  Each $ 395.00

**Temperature Sensor**
Measures temperatures at a location away from the Sensaphone. Triggers alarm when temperature passes user-programmed high/low limits. Temperature range: -20° to +150°F.

**25 foot Cord Sensaphone Temperature Sensor, 2.8K Weather Proof Temperature Probe**
- Item SEN0005  Each $ 33.75

Already have a greenhouse?  
Looking to grow something different?
CropKing can help you retrofit your greenhouse and assist you in the production of many different crops. Our trained sales and technical staff can recommend the optimal and most cost-efficient solution for your situation.

ELECTRONIC TEMPERATURE CONTROL (ETC)
With its wide temperature setpoint range and selectable heating or cooling modes, the ETC can be used for a wide variety of applications. Closer control with electronic thermostats results in lower heating and cooling bills!
- Digital display allows simple and accurate setting of controls
- Wide setpoint range (-30°F to 220°F) and differential adjustment (1°F to 30°F).
- Diagnostic program checks for hardware, software, or system problems and displays different error codes for easy troubleshooting.
- Keypad lockout switch prevents tampering.
- EPROM memory retains control settings during power outage.
- On power up, time delay protects equipment from simultaneous restarts.

**1 Stage Electronic Temperature Controller**, 120/208/240 Volt
- Item THE2003  Each $ 80.05

**2 Stage Electronic Temperature Controller**, 120/208/240 Volt
- Item THE2004  Each $ 142.50

POCKET SLING PSYCHROMETER
Simple to operate: saturate the wick of the wet bulb thermometer in clean water and whirl the sling psychrometer until the temperature stops dropping. Read the two thermometers. Place wet bulb temperature over the dry bulb temperature scale on the slide rule. The arrow will then point directly to the accurate relative humidity. Comes complete with carrying case and slide rule. Range on thermometers is 20 to 110°F.

**Pocket Sling Psychrometer**
- Item SLI1000  Each $ 77.50

Shop Online at CropKing.com
**FANS & SHUTTERS**

**HORIZONTAL AIR FLOW FAN**

A high efficiency air circulator that effectively cools plants. Reduces condensation, controls insects and creates a uniform temperature throughout your building to reduce heating costs.

**Features:**
- Aluminum propeller designed to reduce ambient noise levels while maintaining maximum circulation requirements.
- OSHA approved guard
- Efficient variable speed motor
- Corrosion resistant white powder coated guard and hot dip galvanized bracket
- Fan and guards come completely assembled
- Prewired with 115V attached 6 foot cord and 3-prong plug
- Totally enclosed, maintenance free direct drive high efficiency motors have completely sealed ball bearings, UL/CUL certification and are covered by a full two year warranty

1/15 HP, 100W, 1400 RPM, 2000 CFM, 115 Volt

**20 inch Horizontal Air Fan**

Item FAN1001 Each $ 150.00

**SHUTTERS, ALUMINUM**

Motorized Shutter KIt includes the aluminum shutter, motor (115 or 230V), and the mounting hardware.

**Motorized Aluminum Shutter**

- 16 x 16 inch Item SHU1600 Each $ 158.40
- 21 x 21 inch Item SHU2100 Each $ 169.60
- 27 x 27 inch Item SHU2700 Each $ 191.20
- 33 x 33 inch Item SHU3300 Each $ 216.00
- 39 x 39 inch Item SHU3900 Each $ 273.60
- 45 x 45 inch Item SHU4500 Each $ 309.60
- 51 x 51 inch Item SHU5100 Each $ 347.20
- 57 x 57 inch Item SHU5700 Each $ 400.00
- 60 x 36 inch Item SHU6036 Each $ 412.80

**SHUTTER MOTOR KIT**

Kit for 16-33 inch shutters. Over 33 inch shutters requires double-arm.

**Shutter Motor Kit, 115V, Coolair (motor only)**

Item SHU1000 Each $ 82.00

**Double Arm Linkage Kit** for over 33 inch shutters, Motor not included.

Item SHU1100 Each $ 44.00

**Vertical Airflow Fan**

Vertical air flow (VAF) fan. Manufactured by Vostermans, the Multifan V-FloFan produces an air current that is forced outward and downward along the roof and walls of the greenhouse and then pulled upward through the crop (see image below). Potential improvements that we have observed in trials in our on-site research and demonstration greenhouses include reduced condensation on the inner plastic roof surface and the potential for reduced condensation on plant leaf surfaces. Such factors could have benefits in both plant production and plant health. We look forward to further trials and continued optimization of these air movement tools in our controlled environmental vegetable greenhouses.

Item FAN2000 Each $ 540.00

**Cooling Package $2395.00**

- Cools Approximately 450 Square Foot Greenhouse
- 30 inch Exhaust Fan, 1/3 HP, 230V, 2 speed, Single Phase motor
- (2) 60 x 36 inch Motorized Inlet Shutters
- 3’ x 10’ x 4” Evaporative Cooling Package with Sump Pump
- Additional Sizes Available

**PVC EVAPORATIVE COOLING SYSTEM**

Need to Cool Your Small Greenhouse?

- Cools Approximately 450 Square Foot Greenhouse
- 30 inch Exhaust Fan, 1/3 HP, 230V, 2 speed, Single Phase motor
- (2) 60 x 36 inch Motorized Inlet Shutters
- 3’ x 10’ x 4” Evaporative Cooling Package with Sump Pump
- Additional Sizes Available
**FAN PACKAGES**

**Coolair Fans**

**Basic Components**
- Fan packages are single speed, two speed also available.
- Frames are fabricated from heavy gauge steel with all welded construction offering the rigidity and strength for years of quiet trouble-free operation. A wide flared orifice is recessed and welded into the frame.
- Coolair’s new super tough paint finish is a baked powder polyester coating for years of long wear and low upkeep.
- Box wall housings are available at a lower cost. Aluminum housings are available at a higher cost.
- Fans and cooling equipment are shipped direct from the factory in Jacksonville, Florida, and prices are FOB factory. Indicate voltage needed.
- Fan Package includes Shutter, Slope Wall Housing and Fan.

**24 inch Fan Package:**
- 1/4 HP Item FAN2414 Each $ 610.40
- 1/3 HP Item FAN2413 Each $ 610.40
- 1/2 HP Item FAN2412 Each $ 630.40
- 3/4 HP Item FAN2434 Each $ 664.80

**30 inch Fan Package:**
- 1/4 HP Item FAN3014 Each $ 676.00
- 1/3 HP Item FAN3013 Each $ 676.00
- 1/2 HP Item FAN3012 Each $ 696.00
- 3/4 HP Item FAN3034 Each $ 722.40

**36 inch Fan Package:**
- 1/3 HP Item FAN3613 Each $ 772.00
- 1/2 HP Item FAN3612 Each $ 792.00
- 3/4 HP Item FAN3634 Each $ 818.40
- 1 HP Item FAN3610 Each $ 833.60

**42 inch Fan Package:**
- 1/2 HP Item FAN4212 Each $ 920.00
- 3/4 HP Item FAN4234 Each $ 946.40
- 1 HP Item FAN4210 Each $ 961.60

**Replacement Parts for 42 inch:**
- Fan Blade Pair Item FAN4200 Each $ 54.00
- Fan Shaft Assembly Item FAN4201 Each $ 47.00
- Fan Disc Assembly Item FAN4202 Each $ 102.00

**48 inch Fan Package:**
- 1/2 HP Item FAN4812 Each $ 1,025.60
- 3/4 HP Item FAN4834 Each $ 1,052.00
- 1 HP Item FAN4810 Each $ 1,067.20

**Replacement Parts for 48 inch:**
- Fan Blade Pair Item FAN4800 Each $ 48.00
- Fan Shaft Assembly Item FAN4801 Each $ 62.00
- Fan Disc Assembly Item FAN4802 Each $ 158.00

**54 inch Fan Package:**
- 1 HP Item FAN5410 Each $ 1,241.60
- 1-1/2 HP Item FAN5415 Each $ 1,301.60

---

**GSWH (Slope) Wall Housing Dimensions**

**NBF Fan Dimensions**

**PERFORMANCE DATA • Type NBF Fan (all specifications subject to change without notice)**

- Fan Blade Motor Fan Fan RPM Approx. Ship Wt. 0.5 S.P. BHP* C.F.M. 0.5 S.P. BHP* C.F.M. 1.0 S.P. BHP* C.F.M. 1.25 S.P. BHP* C.F.M.
- FAN2414 1/4 474 130 18210 1.085 17515 1.121 16685 1.157 16265 1.186
- FAN2413 24" 1/3 706 122 14025 0.496 13070 0.523 12495 0.569 12155 0.599
- FAN2412 1/2 815 118 13700 0.783 13105 0.815 12495 0.839 12155 0.893
- FAN2434 3/4 972 93 8370 0.877 8140 0.897 7970 0.915 7885 0.925
- FAN3014 1/4 486 77 7620 0.268 7100 0.282 6480 0.295 6040 0.301
- FAN3013 30" 1/3 533 70 8360 0.353 7890 0.369 7360 0.383 7040 0.390
- FAN3012 1/2 627 86 9830 0.575 9430 0.594 9020 0.611 8790 0.619
- FAN3034 3/4 706 106 11070 0.821 10715 0.842 10350 0.862 10160 0.872
- FAN3613 1/3 419 100 10600 0.364 9840 0.387 8890 0.399 8225 0.405
- FAN3612 36" 1/2 474 110 12000 0.527 11325 0.554 10580 0.572 10120 0.578
- FAN3634 3/4 541 118 13700 0.783 13105 0.815 12495 0.839 12155 0.893
- FAN3610 1 609 120 15415 1.117 14895 1.153 14360 1.184 14080 1.196
- FAN4812 1/2 365 122 14025 0.496 13070 0.523 12495 0.546 11600 0.560
- FAN4234 42" 3/4 433 128 16635 0.827 15865 0.860 14930 0.888 14435 0.903
- FAN4210 1 474 130 18210 1.085 17515 1.121 16685 1.157 16265 1.186
- FAN4812 1/2 303 146 20410 0.577 19240 0.589 17650 0.593 16875 0.619
- FAN4834 48" 3/4 350 152 24520 0.889 23060 0.904 21360 0.910 20250 0.917
- FAN4810 1 373 154 21750 1.076 20665 1.104 19220 1.122 18500 1.130
- FAN5410 54" 54 280 24520 0.986 23060 1.104 21360 1.122 20250 0.917
- FAN5415 1-1/2 414 296 26475 1.257 25750 1.313 24030 1.345 22570 1.375

Note: Motors have been tested at maximum BHP conditions and operate within standard allowable NEMA temperature, limits, and carry full warranty. Performance shown is for Type NBF fans without ducts.

*BHP does not include drive losses. Bearing losses are included.

**Assembled Fans in slope wall housing, motor mounted, shutter and wall housing guard shipped in separate cartons.**

We accept Visa, Mastercard and Discover on all orders at 330-302-4203
GLACIER-COR™ SYSTEM

Evaporative Cooling Pads are 4 or 6 inch thick, 12 inch wide with height increments every 12 inch from 24 to 96 inch. The Evap Pads are positioned adjacent to each other to form a continuous pad of the required height and length. The Evap Pads are made of specially formulated cellulose paper, impregnated with insoluble anti-rot salts, stiffening saturants and wetting agents. 4 inch Evaporative Pads up to 48 inch tall and 6 inch Evaporative Pads up to 72 inch tall are self-supporting, and therefore they do not require wire baskets or other supporting materials. The pads are held in place by component parts of the system. Tall pad supports are required on 4 inch pad systems over 48 inch tall and 6 inch pad systems over 72 inch tall.

- Completely self-contained
- Sump included
- Energy Efficient cooling
- Custom designs available.

REPLACEMENT COOLING PAD

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Width</th>
<th>Height</th>
<th>Item Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; x 1' x 3'</td>
<td>12&quot;</td>
<td>24&quot; to 96&quot;</td>
<td>GCP3600</td>
<td>$14.40</td>
</tr>
<tr>
<td>6&quot; x 1' x 3'</td>
<td>12&quot;</td>
<td>24&quot; to 96&quot;</td>
<td>GCP3601</td>
<td>$21.60</td>
</tr>
<tr>
<td>4&quot; x 1' x 4'</td>
<td>12&quot;</td>
<td>24&quot; to 96&quot;</td>
<td>GCP4800</td>
<td>$19.35</td>
</tr>
<tr>
<td>6&quot; x 1' x 4'</td>
<td>12&quot;</td>
<td>24&quot; to 96&quot;</td>
<td>GCP4801</td>
<td>$28.80</td>
</tr>
<tr>
<td>4&quot; x 1' x 5'</td>
<td>12&quot;</td>
<td>24&quot; to 96&quot;</td>
<td>GCP6000</td>
<td>$24.40</td>
</tr>
<tr>
<td>6&quot; x 1' x 5'</td>
<td>12&quot;</td>
<td>24&quot; to 96&quot;</td>
<td>GCP6001</td>
<td>$36.00</td>
</tr>
</tbody>
</table>

Cool - N - Clean
For water pipes, cool cell pads and hard environmental surfaces. For use in poultry, swine, dairy, and operations

1. Wet Pad thoroughly using a house washer or water hose. Do NOT use too high of pressure or it will harm the pad
2. Combine (2) gallons of Cool-N-Klean with (10) gallons of water into a backpack/ pump up sprayer
3. Spray mixture thoroughly onto entire length of pad and let sit for 30 minutes
4. Then spray with clear water from top to boom, removing all minerals deposits and algae
5. To control the growth of algae, spray pads once a week with EVAP 100 at a rate of 1 ounce to 20 gallons of water during periods of use For 6" Recirculating Systems:

1 Gallon | Item Code  | Price Each |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GCP1000</td>
<td>$25.00</td>
<td></td>
</tr>
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</table>

VENT DOOR
Endwall Vent Door Package with extruded aluminum frame, 8mm polycarbonate covering, heavy duty gear motor with internal limit switches, and related hardware for mounting onto an endwall. The vent door assembly is attached to the structure itself. The gear motor includes an exterior wiring box with manual switches and connections for an iGrow or other computer systems. The door covers inside openings of 4 foot high to any length up to 175 foot.

**Please call for a price quote**

CropKing Vent Door Motor
Mounting Kit

<table>
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<tr>
<th>Item Code</th>
<th>Price Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>VEN4000</td>
<td>$1635.10</td>
</tr>
<tr>
<td>VEN4001</td>
<td>$49.50</td>
</tr>
</tbody>
</table>

THE PUMP AND SUMP
The pumps are sized for the system to supply at least 1/2 gallon of water per minute per linear foot of pad system. The integral PVC sump and trough hold an adequate water supply for systems up to 60 foot long and 8 foot high.

WATER DISTRIBUTION SYSTEMS
The water distribution systems for both PVC and Aluminum designs are composed of the water distribution PVC pipe with metered outlet holes, top and bottom pad support material, water distribution pipe cover, water return trough, water filter, float and volume control valves and various parts and fasteners.

Environmental Control

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Environtmental Control
Roll-Up Sidewall Curtain package for freestanding Greenhouses

Side-Clasp Roll-Bar System Packages use 2 inch Side-Clasp Roll-Bar with built in wirelock channel

- One-Piece Roll-Bar with integrated WireLock Channel
- Double WireLock to attach your roof covering to the top clasp and the roll-up curtain to the lower clasp.
- Wind Rope System that holds curtain to the structure, and materials for creating end panels. Curtain laps 4 foot on each end.
- Packages include End Panel, WireLock and installation aids.
- Film for curtain sold separately.
- 4 foot 6 inch tall opening.

**Package Option 1**
Includes options above, plus the unique Roll-Lock system to securely lock down curtain and provide an airtight seal.
* Curtains must be ordered in 4 foot increments.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROL2000</td>
<td>20 - 44 Foot</td>
<td>$17.25 per foot</td>
</tr>
<tr>
<td>ROL2000</td>
<td>48 - 92 Foot</td>
<td>$15.70 per foot</td>
</tr>
<tr>
<td>ROL2000</td>
<td>96 - 240 Foot</td>
<td>$14.35 per foot</td>
</tr>
</tbody>
</table>

**Package Option 2**
Cost effective roll-up curtain package. Includes options above, without the Roll-Lock system.
* Curtains must be ordered in 4 foot increments.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROL2100</td>
<td>20 - 44 Foot</td>
<td>$11.50 per foot</td>
</tr>
<tr>
<td>ROL2100</td>
<td>48 - 92 Foot</td>
<td>$10.50 per foot</td>
</tr>
<tr>
<td>ROL2100</td>
<td>96 - 240 Foot</td>
<td>$  9.50 per foot</td>
</tr>
</tbody>
</table>

**Manual Gear Crank Package**
13:1 Gear ratio with internal brake. Package includes guidepipe, gear crank, 30 inch handle, adapters, and guidepipe hardware.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROL2500</td>
<td></td>
<td>$207.00</td>
</tr>
</tbody>
</table>

**Tube Motor Package**
Automatic opening and closing of curtains. Includes guidepipe, counterweight, roller guide, & guidepipe mounting hardware.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROLMTMP</td>
<td></td>
<td>$739.80</td>
</tr>
</tbody>
</table>

**Additional Options**

**7 Foot Guidepipe** 1.315 inch OD (not included in Gear Crank Package or Tube Motor Package)

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROL2600</td>
<td></td>
<td>$22.00</td>
</tr>
</tbody>
</table>

**Automatic Inflation Kit**
Inflates curtains and end panels on locked down curtain systems. Includes fan, jumpers, & switch.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROLIFKM</td>
<td></td>
<td>$209.90</td>
</tr>
</tbody>
</table>

**Hand Held Poly Sealer**
Seals ends of 2 layer curtains

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROLPSHH</td>
<td></td>
<td>$124.50</td>
</tr>
</tbody>
</table>

**Environmental Control**

**Ventilation Control Unit**
Quick and easy programming, featuring LED digital temperature display, manual override and 2-year warranty.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROLVCU1</td>
<td>Ventilation with One Motor</td>
<td>$419.90</td>
</tr>
<tr>
<td>ROLVCU2</td>
<td>Ventilation with Two Motors</td>
<td>$769.30</td>
</tr>
</tbody>
</table>

**Limit Switch Assembly for Roll-Lock**
Compensates for expansion and contraction of poly with Roll-Lock System.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROLLSARL</td>
<td></td>
<td>$109.90</td>
</tr>
</tbody>
</table>
Environmental Control

**Heaters**

**MODEL PDP, POWER VENTED**

- Power vented (less heat loss in off cycles)
- Flue can be run horizontally
- Helps overcome negative pressure in house
- Can use smaller diameter single wall flue
- No blocked vent switch
- Higher seasonal efficiency
- Spark ignition (saves energy)
- Requires Single Heater Hanger Kit

**Features:**
- 80% thermal efficiency, maximizing seasonal efficiency through the use of a collector box and the power exhauter.
- A power exhaust that can be rotated 180°. The unit can be vented vertically or horizontally.
- A 100% shut-off, intermittent pilot-ignition system with continuous retry, at no extra charge. This ignition system allows for all PDP units to be field-converted to propane.
- A safety pressure-switch to assure safe venting conditions.
- Designed to utilize the smallest-diameter vent pipe possible.
- PDP models are designed to operate against 0.5 inches of external static pressure.
- "Wing" screws so that the bottom pan can be dropped without a screwdriver or nut driver.
- A leveling hanging mechanism for easy field adjustments after adding accessories that may change the unit's center of gravity.

**PROPUTE:**
- 150,000 BTU
  - Item HEA3014 Each $1011.00
  - Item HEA3016 Each $1092.00
  - Item HEA3018 Each $1157.00
  - Item HEA3020 Each $1445.00
  - Item HEA3022 Each $1599.00

**NATURAL GAS:** 150,000 BTU
- Item HEA3015 Each $1011.00
- Item HEA3017 Each $1092.00
- Item HEA3019 Each $1157.00
- Item HEA3021 Each $1445.00
- Item HEA3023 Each $1599.00

**EFFINITY 93 HEATER (model PTC)**

The most efficient gas-fired unit heater in North America.

All operating at 93% efficiency, the Effinity93 will dramatically lower energy costs through decreased gas/propane consumption. For those looking to feel even more green, each unit will reduce CO2 output by roughly 13% versus comparable sized heaters.

**Features:**
- Uses 100% outside air for combustion.
- Sealed compartment protects combination gas control, ignition control, manifold and burner.
- Industry-proven, AL29-4C stainless steel secondary heat exchanger relieves fears of failure.
- The PTC condensing unit heater line utilizes a bent tube heat exchanger and is ready for quick PVC pipe connections.
- 93% thermal efficiency, maximizing seasonal efficiency through the use of a collector box and the power exhauter.
- Horizontal or vertical concentric vent kits are available.
- 20 gauge aluminized steel cabinet
- Aluminized steel heat exchanger (409 stainless steel optional)
- Adjustable air-deflector blades
- Fans engineered for quiet operation
- Totally enclosed fan/blower motors
- Permanently-lubricated motor for trouble-free dependability.
- High temperature limit protection.
- Gas control step down transformer with 24V supply.
- Gas control, ignition control, manifold and burner.
- Sealed compartment protects combination gas control, ignition control, manifold and burner.
- Uses 100% outside air for combustion.
- 93% thermal efficiency maximizing seasonal efficiency.
- 80% thermal efficiency, maximizing seasonal efficiency through the use of a collector box and the power exhauter.
- A safety pressure-switch to assure safe venting conditions.
- Designed to utilize the smallest-diameter vent pipe possible.
- PDP models are designed to operate against 0.5 inches of external static pressure.
- "Wing" screws so that the bottom pan can be dropped without a screwdriver or nut driver.
- A leveling hanging mechanism for easy field adjustments after adding accessories that may change the unit's center of gravity.

**PROPUTE:**
- 135,000 BTU
  - Item HEA4000 Each $2448.00
  - Item HEA4002 Each $2630.00
  - Item HEA4004 Each $2711.00
  - Item HEA4006 Each $3096.00
  - Item HEA4008 Each $3249.00

**NATURAL GAS:** 135,000 BTU
- Item HEA4001 Each $2448.00
- Item HEA4003 Each $2630.00
- Item HEA4005 Each $2711.00
- Item HEA4007 Each $3096.00
- Item HEA4009 Each $3249.00

**HOT DAWG: MODINE GAS-FIRED LOW PROFILE UNIT HEATER**

Model HD – Modine’s gas-fired, low profile unit heaters are available in 115V/60Hz/1Ø power, come standard for use on natural gas, and are equipped with hot surface ignition. All Hot Dawg models come standard with a power exhauter and are certified for residential, commercial and industrial applications. They can be easily installed from a ceiling with two angle brackets supplied with the unit.

**Features:**
- 80% thermal efficiency.
- Electrostatic polyester powder finish.
- TEFC motors with vibration mounts.
- Large easily accessible junction box.
- Hinged bottom access for easy service.
- Adjustable mounting brackets.
- Requires a Double Heater Hanger Kit.

For high altitudes, when ordering include:
- Type of gas: Propane or Natural
- BTU content (BTU/gallon of fuel used)
- Specific altitude in feet

**PROPUTE:**
- 30,000 BTU
  - Item HOTHD30B Each $632.00
  - Item HOTHD30A Each $632.00

**NATURAL GAS:** 30,000 BTU
- Item HOTHD30A Each $632.00

**PROPUTE:**
- 45,000 BTU
  - Item HOTHD45B Each $663.00
  - Item HOTHD45A Each $663.00

**NATURAL GAS:** 45,000 BTU
- Item HOTHD45A Each $663.00

**PROPUTE:**
- 60,000 BTU
  - Item HOTHD60B Each $756.00
  - Item HOTHD60A Each $756.00

**NATURAL GAS:** 60,000 BTU
- Item HOTHD60A Each $756.00

**PROPUTE:**
- 75,000 BTU
  - Item HOTHD75B Each $780.00
  - Item HOTHD75A Each $780.00

**NATURAL GAS:** 75,000 BTU
- Item HOTHD75A Each $780.00

**PROPUTE:**
- 100,000 BTU
  - Item HOTHD100B Each $894.00
  - Item HOTHD100A Each $894.00

**NATURAL GAS:** 100,000 BTU
- Item HOTHD100A Each $894.00

**PROPUTE:**
- 125,000 BTU
  - Item HOTHD125B Each $959.00
  - Item HOTHD125A Each $959.00

**NATURAL GAS:** 125,000 BTU
- Item HOTHD125A Each $959.00

*Except Hot Dawg Heaters*

**FREE SHIPPING ON ALL HEATERS!**

Page 46  CropKing, Inc.  We accept Visa, Mastercard and Discover on all orders at 330-302-4203
Convection Tube Hangers, PVC, 10 pack

Item TUB1000 Each $13.30

Coolair Power Tube Fan

In controlled environments where a precise tempering of air is critical to production, American Coolair offers the Power Tube Fan. Coolair Power Tube Fans are specially designed units developed for compatibility with polyethylene tubes. For the necessary low velocity tempering of air, these fans and tubes are perfectly matched.

Construction

constructed of heavy gauge steel, the Coolair Power Tube Fan is offered in diameters from 12 to 30 inches. The 12, 18 and 24 inch fans are direct drive units. The 30 inch fans are belt driven and incorporate the Coolair exclusive stationary shaft design from the Coolair NBF type units. Belt drive models have two sealed lifetime lubricated oversized shaft bearings. The propellers have six steel die formed blades.

All Power Tube Fans employ air straightener vanes for efficient air distribution.

All Coolair motors are of heavy duty type, totally enclosed, for fan operation. They employ sealed ball bearings for continuous trouble-free performance.

Fan Jet Systems, or power tube fans, include the fan housing, fan, motor, motorized air inlet shutter, and heat kit (the 12 inch does not use a heat kit). Order poly tube, cable and hangers separately. Guards are optional but highly recommended and are not included in the prices below.

Single Phase (3 phase is Optional):

12 inch Fan Jet System (no heat kit):
1/6 HP, Direct Drive, 1250 CFM

Item JET1216 Each $531.20

18 inch Fan Jet System
1/3 HP, Direct Drive, 1625 CFM

Item JET1813 Each $704.00

24 inch Fan Jet System
1/3 HP, Direct Drive, 4850 CFM

Item JET2413 Each $792.00

30 inch Fan Jet System
1/2 HP, Belt Drive, 7550 CFM

Item JET3012 Each $920.80

30 inch Fan Jet System
1 HP, Belt Drive, 10450 CFM

Item JET3010 Each $879.20

12 inch Punched, per foot

Item CON0012 Each $0.65

12 inch Unpunched, per foot

Item CON0013 Each $0.60

18 inch Punched, per foot

Item CON0018 Each $0.75

18 inch Unpunched, per foot

Item CON0019 Each $0.70

20 inch Punched, per foot

Item CON0020 Each $0.85

20 inch Unpunched, per foot

Item CON0021 Each $0.80

24 inch Staggered Punched, per foot

Item CON0024 Each $1.00

per roll

Item CON2400 $124.50

24 inch Unpunched, per foot

Item CON0025 Each $0.95

30 inch Staggered Punched, per foot

Item CON0029 Each $1.15

per roll

Item CON3000 $146.25

30 inch Unpunched, per foot

Item CON0031 Each $1.00

*24 and 30 inch in stock at 100 and 130 foot
**BiOWiSH™-Hydroponic**

BiOWiSH™-Hydroponic is an organic enzymatic additive that stimulates microbial activity in hydroponic systems, helping to increase micronutrient uptake in plants and improve plant vigor. Developed for the protected cropping and hydroponics industries, BiOWiSH™-Hydroponic also prevents sludge build-up and problematic scaling in dripper lines, micro-tubes and Nutrient Film Technique (NFT) gulley floors.

**BiOWiSH™ helps increase micronutrient uptake in plants and improves plant vigor**

BiOWiSH™ technology creates a composite biocatalyst that enhances biochemical reactions more quickly than available alternatives, and performs effectively in a wide range of environmental conditions. Derived from a proprietary manufacturing process, the robust blend of biocatalysts enhances the beneficial role of microbial activity to break down organic matter and increase nutrient availability. Use 10 grams of biowish for every 250 gallons of water per day.

**BiOWiSH™-Hydroponic, 1,000 grams (2.2 lbs)**

*Item BIO0159 Each $ 108.88*

Nylon Mesh Bag, 50 micron

*Item STR4001 Each $ 8.50*

---

**Leafy Greens**

**GUARANTEED ANALYSIS**

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Nitrogen (N)</td>
<td>4.30%</td>
</tr>
<tr>
<td>Available Phosphoric Acid (P$<em>{2}$O$</em>{5}$)</td>
<td>9.30%</td>
</tr>
<tr>
<td>Soluble Potash (K$_{2}$O)</td>
<td>35.00%</td>
</tr>
<tr>
<td>Magnesium (Mg)</td>
<td>3.90%</td>
</tr>
</tbody>
</table>

**TRACE ELEMENTS**

- Boron (B) .................................................. 200 mg/kg
- Copper (Cu) ............................................. 105 mg/kg
- Iron (Fe) .................................................. 2100 mg/kg
- Manganese (Mn) .......................................... 190 mg/kg
- Molybdenum (Mo) ........................................ 42 mg/kg
- Zinc (Zn) .................................................. 210 mg/kg

**Hydro-Gro Hydroponic Fertilizer**

Hydro-Gro fertilizer is the premier hydroponic fertilizer! It can be shipped easily by UPS or by motor freight.

**Vine Crop**

**GUARANTEED ANALYSIS**

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Nitrogen (N)</td>
<td>4.40%</td>
</tr>
<tr>
<td>Available Phosphoric Acid (P$<em>{2}$O$</em>{5}$)</td>
<td>13.00%</td>
</tr>
<tr>
<td>Soluble Potash (K$_{2}$O)</td>
<td>34.00%</td>
</tr>
<tr>
<td>Magnesium (Mg)</td>
<td>3.70%</td>
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</table>

**TRACE ELEMENTS**

- Boron (B) .................................................. 275 mg/kg
- Copper (Cu) ............................................. 95 mg/kg
- Iron (Fe) .................................................. 1000 mg/kg
- Manganese (Mn) .......................................... 800 mg/kg
- Molybdenum (Mo) ........................................ 40 mg/kg
- Zinc (Zn) .................................................. 270 mg/kg

---

**Hydro-Gro Vine Crop, 50 Pounds**

*Item FER1000 Each $ 126.00*

<table>
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<th>Each</th>
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<tbody>
<tr>
<td>FER1000</td>
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<td>FER1000</td>
<td>$94.50</td>
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<tr>
<td>FER1000</td>
<td>$91.00</td>
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</table>

**Hydro-Gro Leafy Greens, 50 Pounds**

*Item FER1500 Each $ 126.00*

<table>
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<th>Item</th>
<th>Each</th>
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<td>FER1500</td>
<td>$94.50</td>
</tr>
<tr>
<td>FER1500</td>
<td>$91.00</td>
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</table>

**Hydro-Gro Vine Crop, 5 Pounds**

*Item FER3022 $ 19.00*

**Hydro-Gro Leafy Greens, 5 Pounds**

*Item FER3020 $ 19.00*

**Hydro-Gro Leafy Greens, 1 Pound**

*Item FER3019 $ 9.50*

**Calcium Nitrate, 50 Pounds**

*Item FER3014 $ 29.95*

**Calcium Nitrate, 5 Pounds**

*Item FER3025 $ 7.00*

**Calcium Nitrate, 1 Pound**

*Item FER3024 $ 2.60*
MICRO NUTRIENTS

Copper Sulfate, 1 Pound
  Item FER3003  1-4 $ 3.65
  Item FER3003  5+ $ 3.40
Iron Chelate, 5 Pounds
  Item FER3015  1-5 $ 67.50
  Item FER3015  6-9 $ 61.50
  Item FER3015  10+ $ 58.50
Manganese Sulfate, 1 Pound
  Item FER3005  Each $ 9.20
Micro Fine Sulfur, 1 Pound
  Item FER3042  Each $ 4.45
Sodium Molybdate, 1/4 Pound
  Item FER3033  Each $ 16.00
Sodium Molybdate, 1/2 Pound
  Item FER3033  Each $ 30.00
Sodium Molybdate, 1 Pound
  Item FER3033  Each $ 40.00
Solubor (Boron), 1 Pound
  Item FER3006  Each $ 4.40
Zinc Sulfate, 1 Pound
  Item FER3016  Each $ 3.90

CALCIUM NITRATE

For best results, use only Greenhouse Grade Calcium Nitrate in your hydroponic growing system. You will have less residue and sediment from mixing, and less plugging of your feedlines and drippers. 15.5-0-0

Greenhouse Grade Calcium Nitrate is a refined, prilled (uncoated) highly soluble material.

Calcium Nitrate, 50 Pounds
  Item FER3014  1-20 $ 29.95
  Item FER3014  21-40 $ 28.05
  Item FER3014  41+ $ 27.60

GUARANTEED ANALYSIS
  Total Nitrogen (N) .................................................. 15.5%
  Nitrate Nitrogen (NO₃) ............................................. 14.4%
  Ammoniacal Nitrogen (NH₄) .................................... 1.1%
  Calcium (Ca) .......................................................... 19.0%

FERTILIZER COMPONENTS

Citric Acid, 1 Pound
  Item FER4000  Each $ 4.95
Citric Acid, 50 Pounds
  Item FER4000  Each $ 108.00
Magnesium Sulfate, 1 Pound
  Item FER2900  Each $ 1.70
Magnesium Sulfate (Epsom Salt), 55 Pounds
  Item FER2900  Each $ 39.60
Mono-Potassium Phosphate, 1 Pound
  Item FER3009  Each $ 3.50
Mono-Potassium Phosphate, 50 Pounds
  Item FER3009  Each $ 70.00

GuARANTEED ANALYSIS
Total Nitrogen (N) .................................................. 0%
Available Phosphate (P₂O₅) .................................. 51.5%
Soluble Potash (K₂O) ............................................. 34%

Potassium Nitrate, 50 Pounds
  Item FER3012  1-20 $ 69.00**
  Item FER3012  21-40 $ 65.55**
  Item FER3012  41+ $ 62.10**
Potassium Nitrate, 1 Pound
  Item FER3035  Each $ 5.10**
Potassium Sulfate(Potash), 50 Pounds
  Item FER3010  Each $ 60.75

GuARANTEED ANALYSIS
Soluble Potash (K₂O) ............................................. 52%
Sulfur (S) .............................................................. 18%

Mono-Ammon-Phosphate, 1 Pounds
  Item FER3008  Each $ 2.45
Mono-Ammon-Phosphate, 50 Pounds
  Item FER3008  Each $ 94.50

PH Adjusters

To maximize plant growth, the pH content of your nutrients should be slightly acidic. Experienced growers consider the ideal pH for most crops to fall between 5.5 and 6.5. Users of General Hydroponics nutrient products generally do not experience problems maintaining the proper pH range because our formulas are pH buffered. However, some important exceptions do exist. Acid content can reach unacceptable levels when nutrient solutions are mixed with poor quality water, or pH unstable media - such as rock wool and gravel products - are used, and when high plant growth rates destabilize the nutrient mix due to rapid nutrient absorption by the crop.

PH Up
  pH Up: Base formulated using Potassium Hydroxide and Potassium Carbonate. Add a little at a time if your nutrient pH is too low in order to raise the pH to the proper level.

  PH Up, 1 Gallons  Item HYD5003  Each $26.90

PH Down
  pH Down: Acid formulated using food grade Phosphoric acid. Just add a little at a time if your nutrient pH is too high in order to lower the pH to the proper level.

  PH Down, 1 Gallons  Item HYD5002  Each $26.90

*For PH Testing see page 39

Page 49  CropKing, Inc.  We accept Visa, Mastercard and Discover on all orders at 330-302-4203
**PEST CONTROL**

**FUNGICIDE**

**OXIDATE 2.0**

Broad Spectrum Bactericide / Fungicide

OxiDate 2.0 Broad Spectrum Bactericide/Fungicide kills bacterial and fungal pathogens, offering superior crop protection. Use for curative and preventative applications, or tank mix with other residual fungicides to help provide immediate knockdown control. With OxiDate 2.0, zero days to harvest and zero hour re-entry interval allow growers to spray right up to harvest. After contact, OxiDate biodegrades leaving no residue on crops. Use as seed treatment, transplant water application, foliar spray, or with overhead or drop irrigation.

**CEASE**

Cease can be used as a foliar spray and soil drench on ornamentals, trees, shrubs, flowering plants and greenhouse crops and vegetables grown under cover. It is a broad spectrum biofungicide targeting common fungal and bacterial diseases such as Botrytis, Pseudomonas, Xanthomonas, Erwinia, Powdery Mildew, Leaf Spot and Speck, Anthracnose and Rust.

**Green Cure**

Green Cure® is an all-natural potassium bicarbonate-based fungicide that kills powdery mildew on contact by pulling water from spores and their growing strands. A potassium bicarbonate-based, foliar fungicide that kills powdery mildew on contact by pulling water from spores and their growing strands. Use as seed treatment, transplant water application, foliar spray, or with overhead or drop irrigation.

**MYCOSTOP**

A biofungicide for vegetable & ornamental crops grown in greenhouses. For control of Fusarium, damping-off, root rot and Phomopsis and has shown suppression of Botrytis Gray mold, Pythium and Phytophthora root rots in the greenhouse. Formulated as a wettable powder, containing living spores and mycelium of a selected strain of naturally occuring Streptomyces soil bacteria which deprive pathogen fungi of living space and nourishment. Application should begin at the time of seeding and should be repeated every 3 – 6 weeks. Apply at a rate of 5 grams per 540 square foot of “root area”.

**AZAGUARD**

AzaGuard is a 3% Azadirachtin formulated Insect Growth Regulator (IGR) that offers broad spectrum insecticidal control on over 300 insect species. AzaGuard prevents molting between larval, pupal and nymphal stages reducing insect infestations in/around the facility.

**Botanicals**

AzaGuard’s natural botanical formula meets all of the requirements of the National Organic Program (NOP), and is an important tool in Integrated Pest Management (IPM) and sustainable disease control programs.

**INSECTICIDE**

**BOTANIGARD WP**

When combined with a beneficial insect control program, BotaniGard will greatly enhance the control of whiteflies, thrips, and aphids. Available in wettable powder only.

**DIPEL DF**

The active ingredient, Bt kurstaki, is a naturally occurring bacteria which works against the tomato hornworm, loopers, cutworms, imported cabbage worm, armyworms, etc.

**PYRETHRUM TR**

Total Release Insecticide Canisters Ready to use, these insecticide canisters are placed in the center of section to be treated. Safe on greenhouse vegetables and herbs up to day of harvest. Effective on: ants, aphids, beetles, cabbage worm, caddles, centipede, cockroaches, crickets, flies, fungus gnats, hornworm, house flies, leafhoppers, mealy bugs, mites, moths, rose chafer, rose slug, scale, silverfish, spider mites, spiders, trogoderma, weevils and whiteflies.

**M-PEDE INSECTICIDE SOAP**

Safe Methods For Controlling Pests M-Pede is a biodegradable, fatty acids contact insecticide for control of aphids, spider mites, whitefly, and thrips. M-Pede is generally effective on larval, nymphal and adult life stages. M-Pede is an excellent organic alternative to conventional insecticides.

**Pylon® TR**

Total release insecticide provides control of mites, thrips and adult fungus gnats. It is a miticide/insecticide that offers quick and easy application, thorough coverage, excellent plant safety and flexible re-entry times. For use in: Commercial greenhouses only on ornamental crops and fruiting vegetables. Use on bedding plants, cut flowers, foliage, potted flowering plants, ornamentals and on flowering hanging baskets. Pylon TR total release insecticide is labeled for use on ornamental crops and fruiting vegetables grown in commercial greenhouses. It also may be used on bedding plants, cut flowers, flowering hanging baskets, foliage, fruiting vegetables, potted flowering plants and ornamentals.

**INSECT TRAPS**

**STICKY STRIPS AND STICKY RIBBONS**

Sticky Strips and Sticky Ribbons provide a safe method of trapping insects and can reduce or eliminate the use of harmful chemicals in your hydroponic garden.

**PYLON**

Pylon® TR total release insecticide provides control of mites, thrips and adult fungus gnats. It is a miticide/insecticide that offers quick and easy application, thorough coverage, excellent plant safety and flexible re-entry times. For use in: Commercial greenhouses only on ornamental crops and fruiting vegetables. Use on bedding plants, cut flowers, foliage, potted flowering plants, ornamentals and on flowering hanging baskets. Pylon TR total release insecticide is labeled for use on ornamental crops and fruiting vegetables grown in commercial greenhouses. It also may be used on bedding plants, cut flowers, flowering hanging baskets, foliage, fruiting vegetables, potted flowering plants and ornamentals.

**STICKY TRAPS**

**STICKY STRIPS**

**STICKY RIBBONS**

Sticky Strips and Sticky Ribbons provide a safe method of trapping insects and can reduce or eliminate the use of harmful chemicals in your hydroponic garden.
BENEFICIALS

Aphid Control Use:
- Lacewings (Chrysopa Carnea)
- Ladybugs (Hippodamia Convergens)
- Gall-midge (Aphidoletes Aphidimyza)

For aphid control, we suggest a combination of lacewing larvae and eggs. Lacewing larvae arrive ready to work as soon as released. Lacewing eggs should be sprinkled around the plants that are infested with aphids.

To stop the growth in population of aphids, release approximately one lacewing for every 10 aphids that are infested with aphids.

Lacewing, 1,000

Ladybugs (Hippodamia Convergens) are an additional predator insect effective in controlling aphids. They are not always available, however. They may be used in conjunction with lacewings.

Ladybugs (seasonal)

- Gall-midge (Aphidoletes aphidimyza) adults are active at night. They find aphid colonies by the smell of the honeydew. The female gall-midge deposits small orange eggs near the aphids. The emerging larvae paralyze one aphid after another and sucks each dry.
- Aphidoletes Aphidimyza:
  - APHIDEND
    - Target: wide range of aphid species; recommended especially when aphid colonies are present.
    - To use: Open bottle in the greenhouse, hang the bottle in between the plants. Store in the dark.
    - 100 ml bottle (2,000 pupae)

Aphius Colemani:
- APHIPAR
  - Target: aphids, in particular the cotton aphid, tobacco aphid and the peach potato aphid; especially useful when aphid infestations are beginning.
  - To use: Spread material on rockwool slabs or in application boxes. Store in the dark.
  - 100 ml bottle (1,000)

Aphidius Ervi:
- ERVIPAR
  - Target: aphids, in particular the potato aphid and glasshouse potato aphid; especially useful when aphid infestations are beginning.
  - To use: Sprinkle mummies with buckwheat on rockwool and leave it there for at least one week. Store in the dark.
  - 250 ml bottle (500 adults)


Leaf-Miner Control Use:

- Dacnusa Sibircia
- Diglyphus Isaea

Dacnusa Sibircia:
- MIGLYPHUS
  - Target: leaf-miners in second and third stages.
  - To use: Release parasitic wasps between leaves in the morning or in the evening.
  - Store in the dark.
  - 100 ml bottle (500 adult)

Diglyphus Isaea:
- MINUSA
  - Target: leaf-miners in first and second stages.
  - To use: Release parasitic wasps between leaves and in the morning or evening. Store in the dark.
  - 100 ml bottle (500 adult)

Fungus Gnat Control Use:

- Steineremema Feltiae
- Hypoaspis

Steineremema Feltiae/ Nematodes:

ENTONEM
- Target: sciarid flies, larvae.
  - To use: Put in the contents of the package into a bucket containing 5 liters of water. Stir well and leave the solution to soak for 20-30 seconds. Stir well again and pour the entire content into spray tank. Spray immediately after preparation. Store in the dark.
- Pot in a box (50 million larvae) (in clay carrier)

Hypoaspis:
- ENTONITE
  - Target: small soil living insects and some nematodes.
  - To use: Turn and shake the bottle or bag gently before use. Spread material evenly on rockwool blocks. Do not apply close to stem to avoid plant damage. Store in the dark.
- Bottle (10,000 mites)

Vine Weevil Control Use:

Heterorhabditis Megidis:
  - LARVANEM
    - Target: curculionids, such as the vine weevil, larvae.
    - To use: Put the contents of the package into a bucket containing 20 liters of water. Stir well and leave the solution to soak for 5 minutes. Mix well again. Poor entire content through a fine sieve into spray tank. Spray immediately after the preparation. Store in the dark.
    - (50 million larvae)

有益生物

有益生物的使用方法

1. 购买有益生物时，建议使用介纹蝇（Chrysopa Carnea）
2. 购买瓢虫（Hippodamia Convergens）
3. 购买蚜虫科（Aphidoletes Aphidimyza）

介纹蝇科的使用方法：
- 介纹蝇（Chrysopa Carnea）
- 瓢虫（Hippodamia Convergens）
- 蚜虫科（Aphidoletes Aphidimyza）

用于介纹蝇的控制，我们建议使用介纹蝇和卵的组合。介纹蝇已经准备就绪。

用于介纹蝇的控制，我们建议使用介纹蝇和卵的组合。介纹蝇已经准备就绪。

瓢虫（Hippodamia Convergens）是一种额外的猎食性昆虫，可以有效控制蚜虫。它们并不总是可用的，但可以与介纹蝇一起使用。

瓢虫（季节性）

- 介纹蝇（Aphidoletes aphidimyza）成虫在夜间活动。它们通过蚜虫种群的气味来寻找蚜虫。卵成虫的幼虫将蚜虫麻痹后吸食。
- 介纹蝇（Aphidoletes aphidimyza）：
  - APHIDEND
    - 目标：广泛范围的蚜虫种类；特别推荐当蚜虫种群存在时。
    - 使用方法：在温室中打开瓶子，将瓶子挂在植物之间。存放在黑暗中。
    - 100 ml瓶子（2000个幼虫）

介纹蝇Colemani：
- APHIPAR
  - 目标：蚜虫，尤其是烟草蚜虫和番茄土豆蚜虫；特别推荐当蚜虫种群正在形成时。
  - 使用方法：将材料铺在岩棉板或应用盒中。存放在黑暗中。
  - 100 ml瓶子（1000个）

介纹蝇Ervi：
- ERVIPAR
  - 目标：蚜虫，尤其是番茄土豆蚜虫和玻璃温室土豆蚜虫；特别推荐当蚜虫种群正在形成时。
  - 使用方法：将介纹蝇撒在岩棉板上并覆盖一层旋花。存放在黑暗中。
  - 250 ml瓶子（500个）

叶矿虫的控制使用：

- Dacnusa Sibircia
- Diglyphus Isaea

Dacnusa Sibircia：
- MIGLYPHUS
  - 目标：叶矿虫的第二和第三阶段。
  - 使用方法：在清晨或傍晚在叶片之间释放寄生性黄蜂。
  - 存放在黑暗中。
  - 100 ml瓶子（500个）

Diglyphus Isaea：
- MINUSA
  - 目标：叶矿虫的第一和第二阶段。
  - 使用方法：在清晨或傍晚在叶片和早晨存放在黑暗中。
  - 100 ml瓶子（500个）

真菌蛾的控制：

- Steineremema Feltiae
- Hypoaspis

Steineremema Feltiae/ 线虫：

ENTONEM
- 目标：真菌蛾和幼虫。
  - 使用方法：将瓶子内容物放入一个装有5升水的桶中。搅拌均匀，并将整个内容物倒入喷雾罐。立即喷雾。存放在黑暗中。
  - 50百万条线虫

Hypoaspis：
- ENTONITE
  - 目标：小型土壤生物和一些线虫。
  - 使用方法：将瓶子内容物轻轻地摇晃一次。将湿润的材料均匀涂抹在岩棉块上。请远离茎部以避免植物损害。存放在黑暗中。
  - 10,000条

葡萄象鼻虫的控制：

Heterorhabditis Megidis：
  - LARVANEM
    - 目标：曲尾甲，如葡萄象鼻虫，幼虫。
    - 使用方法：将瓶子内容物放入一个装有20升水的桶中。搅拌均匀，并将整个内容物倒入喷雾罐。喷雾后立即存放在黑暗中。
    - 50百万条

有益生物的订购信息

- 计划使用有益生物时，请在12:00 noon前订购，以便在Next Day Air Thursday送货。
- 订购12:00 noon Wednesday前的订单将在星期三送货。

我们将尽最大努力确保您的订单尽快送达。然而，由于不可预测的天气，一些运输可能会延迟。

任何害虫管理计划的成效将取决于早期发现、适当的管理方法和您的文化实践。生物控制方法需要一些时间来建立。

葡萄象鼻虫和瓢虫在星期一、星期二和星期三送货。

葡萄象鼻虫和瓢虫在星期一、星期二和星期三送货。

葡萄象鼻虫和瓢虫在星期一、星期二和星期三送货。
**Integrated Pest Management (IPM)** is the combination of several methods of managing insect problems.

These methods may include some or all of the following:

- Environmental Control
- Insect Barriers
- Insecticides and Fungicides
- Beneficial Organisms
- Insect Traps

The goal of IPM is not necessarily the eradication of all pests, but rather, the control of the pest population to achieve a balance so that no economic damage is being caused by the pests. A limited amount of the pest will continue to survive in your crop, regardless of the method of control you choose. Using chemical insecticides should only be considered as a last resort, and if IPM is begun early and practiced properly, chemicals may never have to be used.

Using beneficial insects is safer than chemicals, and is generally less expensive. It takes some time to get the beneficials established in your crop, so you need to begin planning your program early, preferably six months in advance. When using beneficials, monitoring the harmful pests is important. Use Sticky Strips or Sticky Cards at the rate of at least one per 250 sq. ft. If thrips are suspected, use blue sticky traps in addition to the yellow ones.

Our technical service staff can help you determine the right beneficials program for your greenhouse. We handle several beneficials, a few of which are listed below. If you are in need of one not shown, we can probably get it for you.

**Beneficials**

**Whitefly Control Use:**
- Encarsia Formosa
- Eretmocerus Ermicus

Encarsia formosa is a tiny parasitic wasp that will lay 50 to 100 eggs into greenhouse whitefly larvae. They work best if ordered as soon as the first whitefly is seen in the greenhouse. Usually three to four introductions, one to two weeks apart, at the rate of one per sq. ft. will establish them. Additional introductions may be necessary if whitefly persist. Be sure to use yellow sticky traps to monitor whitefly populations.

*NOTE: If you determine whiteflies in your greenhouse, it is important to identify the specific type. The more familiar Greenhouse Whitefly is very successfully controlled by the beneficial wasp, encarsia formosa. Sweet Potato Whitefly and Silver Leaf Whitefly are more effectively controlled by eretmocerus ermicus, which is also recommended for Greenhouse Whiteflies in the summer when temperatures in the greenhouse are higher.

**Encarsia Formosa**

- **EN-STRIP**
  - Target: greenhouse whitefly and sweet potato whitefly in the third and fourth larval stage.
  - Preference for greenhouse whitefly.
  - To use: open package carefully inside the greenhouse. Bend Strips and tear off. Start tearing opposite hang-up hole, suspend the cards in the crop. Not in direct sunlight. Do Not Touch the pupae. Store in the dark.
  - Box of 25 cards (1,500 pupae)
  - Item BEN1200 Each $ 24.75
  - Box of 50 cards (3,000 pupae)
  - Item BEN1210 Each $ 34.30

**Eretmocerus Ermicus**

- **ERCAL**
  - Target: greenhouse whitefly and sweet potato whitefly in the second and third larval stage.
  - To use: open package carefully inside the greenhouse. Bend Strips and tear off. Start tearing opposite hang-up hole, suspend the cards in the crop. Not in direct sunlight. Do Not Touch the pupae. Store in the dark.
  - Box of 50 cards (3,000 pupae)
  - Item BEN1433 Each $ 46.75
  - Box of 250 cards (15,000 pupae)
  - Item BEN1434 Each $ 199.50

**Enermix**

- **ENERMIX**
  - Target: greenhouse whitefly and sweetpotato whitefly in the second to fourth larval stage.
  - To use: open package carefully inside the greenhouse. Bend Strips and tear off. Start tearing opposite hang-up hole, suspend the cards in the crop. Not in direct sunlight. Do Not Touch the pupae. Store in the dark.
  - Box of 50 cards (1,500 pupae)
  - Item BEN1236 Each $ 41.75

**Thrips Control Use:**
- Amblyseius Cucumeris
- Orius Laevigatus
- Orius Insidiosus

Amblyseius cucumeris are predatory mites, tan to orange in color and are similar looking to the spider mite predator. The predator population must be established early in the crop, before you see evidence of thrips. Introduce at the rate of one predator per square foot, two weeks after transplanting. Repeat applications every month during periods of warm, dry weather.

**Amblyseius Cucumeris**

- **THRIPEX**
  - Target: various thrip species; hatching eggs and larvae. Predatory mites also eat spider mites.
  - To use: Turn and shake gently before use. Sprinkle material on leaves or apply on crop with mechanical blower. Store bottles horizontally in the dark.
  - 50,000 mites per bottle (all stages)
  - Item BEN1375 Each $ 38.50

**Orius Laevigatus or Orius Insidiosus**

- **THRIPOR**
  - Target: various thrips species; larvae and adults
  - In the absence of thrips can also survive on pollen.
  - To use: Turn and shake gently before use. Spread material on clean rockwool slab, leaves and/or in application boxes. Store in the dark.
  - 500 ml bottle (1,000 adults and nymphs)
  - Item BEN1401 Each $ 132.50

**Whitefly/Thrip Control Use:**

**Amblyseius Swirskii**

- **SWIRSKI-MITE**
  - Target: whitefly and thrip in all larval stages. Turn and shake gently before use.
  - To use: Press on center of cap to open dosage hole. Sprinkle material on leaves. Store in the dark.
  - (50,000 adult mites)
  - Item BEN1540 Each $ 117.50

**Phytophthora Control Use:**

**• Eretmocerus Ermicus**

**• Amblyseius Californicus**

Predatory mites can be very successful in controlling spider mites as they will multiply nearly twice as fast as the spider mite population. As a preventative measure, introduce Phytophthora persimilis at the rate of 1 predator for every 5 sq. ft. of greenhouse area, just after transplanting. Repeat this two weeks later. For control of an existing problem, introduce at the rate of 1 predator for every 25 to 50 spidermites. The more you introduce, the quicker you will gain control.

**Phytophthora Persimilis**

- **SPIDEX**
  - Target: two spotted spider mite and carmine spider mite: all stages, preferring younger stages. Now also effective on mites on tomato plants.
  - To use: Turn and shake gently before use. Sprinkle material on leaves or pour into application boxes. Store in the dark.
  - 100 ml bottle with dosage-plug (2,000 adults)
  - Item BEN1318 Each $ 19.25
  - 500 ml bottle (5,000 all stages)
  - Item BEN1490 Each $ 65.50

**Amblyseius Californicus**

- **SPIICAL (use in conjunction with SPIDEX)**
  - Target: two spotted spider mite, carmine spider mite and fruit tree red spider mite: all stages, preferring younger stages. Predatory mites also survive on other mites and can survive for a number of weeks without food.
  - To use: Turn and shake the bottle gently before use. Sprinkle material on leaves. Store in the dark.
  - 500 ml bottle (5,000 all stages)
  - Item BEN1490 Each $ 65.50

**Feltiella Acarisuga (gall-midge):**

- **SPIEND (use in conjunction with SPIDEX)**
  - Target: various species of spider mites, especially when spider mite occurs in colonies.
  - To use: Make a hole in the paper in the lid on the beaker and put it on the rockwool slab. Protect against direct sunlight. Store in the dark.
  - 750 ml bottle (pupae, from which 250 gall-midges will emerge)
  - Item BEN1435 Each $ 122.00
THE AQUACULTURE SYSTEM

The Aquaculture System is a great introduction to fish farming. Simple to set up and maintain, it incorporates all of the aspects of aquaculture on a smaller scale. Use it to produce clean, wholesome fish for you and your family year-round, or as an outstanding teaching tool for the classroom.

The System is suitable for many species such as, tilapia, catfish and ornamentals. Daily maintenance consists of feeding the fish and the simple act of opening a valve to flush the solids from the collection chamber. It is economical to operate. CropKing Aquaculture System uses less than 10 gallons of water a day and less electricity than a 60 watt light bulb.

CropKing Aquaculture System is made with durable, professional quality materials that are fully warranted. It comes complete and ready to set up with a 300 gallon fish tank, filtration unit, UL-listed air pump and all the plumbing you'll need to make it work right out of the package. The tanks will fit right through a standard doorway and the easy to follow instruction book guides you through the simple steps for set up.

Item AQUHS300 Each $3,345.00

THE AQUAPONIC SYSTEM

The Aquaponic System combines fish culture and true hydroponic plant production into one integrated ecosystem. Easy to set up and maintain, the Aquaponic System can provide you with fresh fish and vegetables from a clean and healthy environment year-round. The fish waste provides the nutrients for the plants, and the plants clean up the water to make it a better place for the fish to live in. This mutually beneficial arrangement is the same as what goes on in nature, but this one is completely within your control.

The 4 x 8 foot hydroponic growing bed is terrific for a kitchen herb cutting garden, dozens of heads of lettuce or other salad greens. In the classroom, there is ample space for individual student projects that simply makes learning fun and exciting.

The Aquaponic System is made with durable, professional quality materials. It comes complete and ready to set up with a 200 gallon fish tank, 4 x 8 foot hydroponic growing bed, an energy efficient, UL-listed air pump and hydroponic media. The Aquaponic System package can fit through a standard doorway.

Item AQUHILM01 Each $3,395.00

Aquaculture and Aquaponics Accessories

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQUHEAT01</td>
<td>1000 watt Submersible with Digital Controller- Industrial Quality</td>
<td>$415.00</td>
</tr>
<tr>
<td>AQUHWIN01</td>
<td>1 x 2 foot</td>
<td>$99.95</td>
</tr>
<tr>
<td>TESTKIT01</td>
<td>9 Elements</td>
<td>$240.00</td>
</tr>
<tr>
<td>TAPWA01</td>
<td>1 Gallon</td>
<td>$42.70</td>
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<tr>
<td>FLOV001</td>
<td>Automatic Filling</td>
<td>$43.00</td>
</tr>
<tr>
<td>AQUHBENBACPDR-1</td>
<td>Dry, 0.8 Ounces</td>
<td>$26.40</td>
</tr>
<tr>
<td>AQUHETHER</td>
<td>Digital Thermometer</td>
<td>$44.15</td>
</tr>
<tr>
<td>AQUA0013</td>
<td>Air pump for AQUHILM01, Outdoor, 81 inch max depth, 48 running watts</td>
<td>$349.70</td>
</tr>
<tr>
<td>AQUA0014</td>
<td>Air pump for AQUHS300, 100 inch max depth, 92 running watts, 115V/60 Hz</td>
<td>$431.80</td>
</tr>
<tr>
<td>AQUHSTAND</td>
<td>Stand for Aquaponics growing bed</td>
<td>$449.95</td>
</tr>
<tr>
<td>SEEDSTR01</td>
<td>seed starter Kit includes 10-20 Tray, 1 Pad of 1-1/2 inch Rockwool and 2 inch Dome</td>
<td>$24.95</td>
</tr>
<tr>
<td>AQUHWIN01</td>
<td>Viewing Window, 1 x 2 foot</td>
<td>$99.95</td>
</tr>
<tr>
<td>AQUHILM01</td>
<td>Tank Heater, 1000 watt Submersible with Digital Controller- Industrial Quality</td>
<td>$415.00</td>
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<td>AQUHWIN01</td>
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</tbody>
</table>

FUNDAMENTALS OF AQUACULTURE

By James Avault, Jr.

A very easy to follow text of practical aquaculture covered from A to Z.

Everyday problems worked on pond construction, feeding, disease control and more. Also included is a comprehensive guide for the beginning fish farmer or aquaculturist, and a reference for someone estashlished in aquaculture.

There are study questions and an extensive reference sention at the end of each chapter. This step by step guide to commercial aquaculture contains over 280 photos, and more than 50 illustrations.

Item BO00075 Each $99.95
CropKing Fodder Rack

Introduction to Fodder

Fodder is defined as “plant material, usually leaves and stems” however when it is grown hydroponically even the roots can be consumed by the animal. As a grass plant matures, its nutrient availability is more dramatically reduced. These young, tender, 8 day old plants are highly nutritious full of energy, protein, minerals and vitamins for your herd.

Our unique hydroponic fodder growing rack is designed to produce nutritious forage using an 8 day cycle. With 24 channels per rack, three channels can be seeded and three channels can harvest on a daily basis. It is possible to turn 10 pounds of barley seed into 70 pounds of living forage per channel, allowing you to harvest 210 pounds of high quality, protein and enzyme rich fodder on a daily basis.
**CropKing FodderKing 4-8**

The FodderKing 4-8 is our smallest system, perfect for those only needing a small amount of hydroponic fodder sprouts each day. Whether your feeding twenty chickens or one cow, the daily production of your own nutritious fodder is economically beneficial and lots of fun! Larger space between shelves allows room to mount supplemental lighting.

- Eight (8) 10 inch W x 4 foot L UV stabilized, food grade PVC growing channels
- 2 channels per level/ 4 levels high
- 400 GPH submersible pump
- Overall footprint of assembled system is 2'2" wide x 5'6" Tall x 4'6" Long
- 1 Soaking bucket with 2 mesh liners
- 27 Square feet of growing area
- Capable of producing 23 pounds a day!
- Perfect for the hobby farmer!

**Item FK48 $ 850.00**
CropKing FodderKing 6-24

The FodderKing 6-24 is identical to our large model in every way except for length. It is perfect for entry level growers or someone experimenting with the addition of fodder to their feeding regime. At an extremely competitive price this unit is a great way to “get your feed wet” growing hydroponic fodder sprouts.

- (24) 10 inch W x 6 foot L UV stabilized, food grade PVC growing channels
- 4 channels per level 6 levels high
- Pump, 1/8 HP pond
- Overall footprint of assembled system is 7’ Long x 4’ Wide x 6’4” Tall
- 3 Soaking buckets with 6 mesh liners
- 120 Square feet of growing area
- Capable of producing 105 pounds of fodder daily!

Item FK624 $1,950.00
CropKing FodderKing 12-24

Fodder is defined as “plant material, usually leaves and stems” however; when it is grown hydroponically even the roots can be consumed by the animal. As a grass plant matures, its nutrient availability is more dramatically reduced. These young, tender, 8 day old plants are highly nutritious full of energy, protein, minerals and vitamins for your herd.

Our unique hydroponic fodder growing rack is designed to produce nutritious forage using an 8 day cycle. It is possible to turn 1 pound of barley seed into 7 pounds of living forage, allowing you to harvest a large amount of high quality, protein and enzyme rich fodder on a daily basis. With only 20 minutes of labor a day, you can produce up to 210 pounds of hydroponic fodder sprouts a day. Each galvanized steel-supported system also includes all necessary plumbing, a submersible pump, timer and detailed operational instructions. All of these systems are recirculating and drain-to-waste compatible, making growing your own fodder a breeze!

- (24) 10 inch W x 12 foot L UV stabilized, food grade PVC growing channels
- 4 channels per level by 6 levels high
- Pump, 1/8 HP pond
- Overall footprint of assembled system is 13’ Long x 4’ Wide x 6’4” Tall
- 3 Soaking buckets with 6 mesh liner
- 240 Square feet of growing area

**Item FK1224**  **$2,950.00**
**CropKing MicroGreen Rack**

A MicroGreen is the shoot of a vegetable plant that is picked just after the first few true leaves have developed. MicroGreens are often used as a garnish and are tender, delicate and full of flavor! They are ready for harvest, on average, about two weeks after seeding.

Our unique hydroponic MicroGreen growing racks are designed to allow for more sunshine to reach between the levels. There is even enough space to add artificial lighting above each level. With 4 levels per rack and 4 channels per level, the 16 channels will allow you to harvest a full channel 3-4 times per week. Local Chefs get excited by the prospect of having fresh, beautiful, MicroGreens available all year around.

<table>
<thead>
<tr>
<th>Single Rack MicroGreen Growing System</th>
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</thead>
<tbody>
<tr>
<td>• Single rack with nutrient feed and drain plumbing.</td>
</tr>
<tr>
<td>• (16) 10 inch W x 12 foot L PVC growing channels</td>
</tr>
<tr>
<td>• 4 channels per level by 4 levels high</td>
</tr>
<tr>
<td>• Measurement of complete rack is 12.5’ x 50” x 6’ 4” LWH</td>
</tr>
<tr>
<td>• Support rack is made of square galvanized steel</td>
</tr>
<tr>
<td>• Pump, 1/8 HP 1900GPH</td>
</tr>
<tr>
<td>• 2 - 10” rolls of burlap</td>
</tr>
<tr>
<td>• Digital Timer</td>
</tr>
<tr>
<td>• Instruction Manual</td>
</tr>
</tbody>
</table>

**Item MGSINGLE RACK**  $2,350.00
Technical Service Package

This package offers you the most complete technical service program available in the hydroponic industry. You’ll receive all the following for less than half of the retail price when purchased separately.

- One Year Technical Support
- Unlimited interpretation of water and leaf analysis
- Custom fertilizer design
- Telephone support from our Technical Staff
- Grower Training Workshop for 2 participants
- Comprehensive Grower Training Manual
- Training Workshop on DVD, 3 Volume Set
- Growing System DVD

Item TEC1003 Each $2,995.00

Technical Assistance Packages

Ask about our full Technical Packages

Technical Services:
- Custom fertilizer recipe designed for grower’s water source
  - One 15-minute increment of technical support (phone only)
  - Review, interpretation, and advisement on leaf, tissue and solution analysis
  - Site visit to your greenhouse, per each 8 hour day (travel expenses are additional)

Item TEC1011 Each $500.00

DVDs

Introduction to Soilless Controlled Environment Agriculture

Item DVD 1200 Each $ FREE

+4.95 for Shipping & Handling

Advanced Cultural Practices

Topics covered in the video:
- Clipping
- Suckering
- Pollination
- Cluster Pruning
- Truss Support Installation
- Leaf Pruning
- Leaning and Lowering
- Growing Point Removal
- Fruit Picking

Item DVD 2003 Each $ 59.95

Advanced Fruit Load Management

Illustrates pruning and other factors that affect the setting, development and production of fruit.
- Benefits of Cluster Pruning
- Techniques for Pruning
- Abnormal Cluster Growth
- Differences in Cluster Growth
- Cluster Support
- Fruit Set
- Blossom Development

Item DVD 2002 Each $ 59.95

NFT Lettuce Production

Learn from Jim Brown, the details of NFT Lettuce Production. Starting with seeding to harvesting, demonstration and explanation of the procedures and techniques involved in growing Nutrient Film Technique Lettuce is presented.

Key topics include:
- Seeding and Harvesting Schedule Adjustments
- Seeding Media Selection and Preparation
- Seeding Procedure
- Sequence of Plant Ages on the Nursery Table
- Transplanting Seedlings into the Channels
- Placing the Channels into the Fertilizer Feed System
- Progressive Growth of Bibb lettuce
- Harvesting and Packing lettuce in Crispers
- Harvesting Basil
- Lettuce Storage in Refrigeration
- Nutrient Feed System Operation

Item DVD 1300 Each $ 29.95
TWO DAY GROWERS WORKSHOPS

With consumer demand for hydroponic produce increasing significantly, it is imperative to have the knowledge and tools available to make your hydroponic facility more productive and profitable. Why experiment or “reinvent the wheel” when you can benefit from years of accumulated knowledge in hydroponics that we cover in this Workshop? Starting off with the right information can have a significant impact on the success of your operation. This workshop can provide you with that information!

Grower Workshop: $595.00 (for 2 people)

To Reserve your Space:

Call our CropKing salespeople at 330-302-4203 or visit cropking.com for workshop locations

Workshop is filled based on first come first serve basis

Classroom session each morning with presentations on the following topics:

- Hydroponics
- Basic Botany
- Soilless Production Systems
- Environmental Control
- Source Water Needs
- Nutrient Management
- Resource Identification

Several types of soilless culture are covered with the primary focus on the Bato Bucket system for vine crops and NFT system for leaf crops. The main crops discussed are tomato, cucumber, lettuce and herbs.
Business Plan Template

Our Business plan helps with cost estimates, projected income and a complete background on the system you are considering. Whether it is NFT Lettuce System or a Bato Bucket System for Tomatoes, the Business Plan Template contains the information your banker will want to see.

Item CDR2020 Each $99.00

Grower Training

The classroom powerpoint portion of our workshop covers both botany and the environmental factors in the greenhouse. Also discussed are the different pieces of equipment and their specific function on a hydroponic greenhouse. The main cultural chores of a hydroponic greenhouse are described and demonstrated. This presentation can be used to train greenhouse workers on cultural procedures.

3-DVD Set

Item DVD1400 Each $495.00

Books

A Practical Guide to NFT
By C.J. Molyneux
This book sets out the principles and practices of the technique in a concise but thorough manner. With this guide at hand, anyone can introduce NFT.

Item BOO 0027 Each $49.75

A Tomato a Day
By Francisco Contreras
Discover why a tomato is the next superfood, a powerful anti-cancer agent, a foundation of youth and a promoter of heart health.

Item BOO 0099 Each $6.95

Hobby Hydroponics 2nd Edition
By Howard M. Resh
A guide to all aspects of home hydroponics culture and systems, providing the most up-to-date information on hobby hydroponic growing, including the numerous advancements in concepts, technology, and products since the first edition.

New this Edition:
• Discusses new hobby units and components including lights, CO2 generators, and testing equipment
• Updates available nutrients and new products such as mycorrhizae
• Includes many new photographs
• Provides up-to-date references, suppliers, and websites
• Making hydroponics accessible to everyone willing to learn and apply the knowledge, this book provides the information necessary to start, grow, and reap the rewards of having your own hydroponic crops.

Item BOO 1006 Each $26.95

Hydroponic Food Production
By Howard M. Resh
A complete manual and an encyclopedic reference work on soilless food production. Technically comprehensive with nearly 400 photographs and detailed drawings on every form of hydroponics for temperate, tropical, or cold climates.

Item BOO 0001 Each $99.50

Hydroponic Home Food Gardens
By Howard M. Resh
An abundance of new information, written for easy reading, and productive action. Shows home gardeners how to grow fruits and vegetables in a clean, nutritionally perfect soilless medium; how to say goodbye to problems of infertile or infested soil, weeds, pests; how to give plants super nutrition for super growth, appearance, and quality. Scores of photographs, drawings and diagrams make it easy to have a variety of gardens a simple home hydroponic window, deck trays, containers, full-scale hydroponic gardens or small greenhouse projects right at home.

Item BOO 0021 Each $15.50

Like Us On Facebook

We accept Visa, Mastercard and Discover on all orders at 330-302-4203
**Hydroponic Tomato Production**  
*By Jack Ross*
A practical guide for growing tomatoes in containers. Over 200 pages of tomato information, from nutrients to schedules. For greenhouse growers and hobbyists alike, hydroponics has become recognized as a way of producing tomatoes with flavor. This book looks comprehensively at the range of soilless techniques available and how to manage them successfully. Includes a listing of 20 tomato varieties for hydroponic production in containers, and how to grow them successfully. Chapters included on physiology of tomatoes, nutrient levels, and pH requirements, growth factors, pests & diseases, harvesting and packaging. Jack Ross has been involved in producing hydroponic tomatoes for over 16 years.

Item BOO 0080  Each $39.95

**Hydroponics “A Practical Guide for the Soilless Grower”**  
*By Dr. J. Benton Jones*
Gives detailed descriptions of the most commonly used hydroponic growing procedures. Provides clear explanations of the advantages and disadvantages of each hydroponic growth system. Describes the basic concepts of the plant growth and development. Lists the numerous solution formulas and ways these solutions can be used and monitored. Outlines experiments that can be used by students to successfully grow plants hydroponically.

Item BOO 0084  Each $87.00

**Hydroponics Q & A for Successful Growing**  
*By Howard M. Resh*
287 Questions and Answers on topics like nutrition, essential elements, water, diseases, environmental conditions, nutritional disorders, sterilization, herbs and other food crops. Finds helpful pointers on growing many specific products. This paperback book is well indexed and illustrated to easily find the answers you need.

Item BOO 0078  Each $16.85

**Know & Recognizing Pests and Natural Enemies**  
*By M. Malais and W.J. Ravensberg*
Book covers life cycles of pests and beneficials, background information on how to make a beneficial program work. A “must” for the grower who uses beneficials for pest control. Many diagrams and colored pictures.

Item BOO 0040  Each $140.00

**Tomato Diseases**  
*By Peto*
Over 60 pages of high definition color photos and complete verbal descriptions of tomato diseases. Chapters include Bacterial, Fungal, Parasitic or Virus, infectious or non-infectious diseases and control methods. This book was written by the Pathology Department of Petoseed. Easy to read color coded pages. From novice to advanced - hobbyist to commercial grower, this book is a necessity.

Item BOO 0006  Each $30.00

**Hydroponic Tomato Crop Production**  
*By Lynette Morgan, PhD,*
Filled with up-to-date information on hydroponic tomato production from expert growers. Complete guide includes background on the tomato plant, types of tomatoes and seed suppliers, proper growing environment, organic production, nutrient management, propagation, systems of production, fruit quality, pests and diseases, and harvesting and handling.

Item BOO 0010  Each $79.95

**Tomato Plant Culture**  
*By Benton Jones*
A comprehensive factual information about tomato plant culture and fruit production, beneficial to plant scientists and commercial field and greenhouse growers as well as the home gardener. Data compiled focuses on the more recent literature, including information about the cultural characteristics of the plant; fruit production and related quality factors; and environmental and nutritional requirements for both field-and greenhouse-grown plants.

Item BOO 0083  Each $88.30

**CropKing Growers Manual**  
*By Natalie Bumgarner, PhD,*
Growing instruction for use with CropKing growing systems. This guide will walk you through how to grow in a CropKing NFT or Bato Bucket system. This book is a great resource for anyone who has bought a CropKing system used.

Item BOO 4000  Each $495.00

**Shop Online at CropKing.com**
**TOMATO, BEEFSTEAK**

*Foronti, 250 Seeds*

This large beef tomato has good plant vigor and fruit set that contribute to its high yield potential in ungrafted greenhouse production. Round, smooth fruit are similar in size and shape to Torero. Powdery mildew resistance can make it a little low light sensitive under some conditions. More vigorous plant than Torero, but comparable fruit.

- **Item TOM1700**  
  Each $141.65

*DRW 7749*

Red big beef tomato with high yield potential. Open leaf structure and strong plant that should be steered generatively. Fruits have good taste and shelf life and also have a somewhat distinctive flatter shape with more ribbing. Average weight 220 grams. Powdery mildew resistance.

- **Item TOM1050**  
  Each $155.25

*GERONIMO*

Vigorous plant with good vegetative growth for warmer and more stressful production conditions. Average fruit weight is 240 grams, but can be more variable under summer conditions. Powderly mildew resistance along with good crack resistance and flavor.

- **Item TOM1150**  
  Each $121.55

*TOMIMARU MUCHOO*

This is an Asian style pink tomato preferred in japanese culture for its sweet, less acid flavor profile. This tomato is medium to firm in texture. These are vigorous plants with a broad range of disease resistance perfect for greenhouse growing.

- **Item TOM1950**  
  Each $89.15

**TORERO**

- **Item TOM1500**  
  Each $135.40

Red beef tomato with large (250 grams) fruit size (especially in early clusters) and good yield potential. Fruits are consistently round and firm with good shelf life. Plants are labor friendly as they are more generative than Geronimo, Foronti, and Rebelski. Torero can be grown ungrafted, but for long crops carried through hot summers, grafting could provide a benefit.

**TRUST**

- **Item TOM1037**  
  Each $105.20

Older greenhouse beef tomato cultivar with a more generative habit. This cultivar can be an easy to manage crop, but is not as strong through summer heat as some of the newer, more vegetative cultivars. Average fruit weight of 180-280 grams.

**BIG DENA**

This vigorous and productive cultivar is appropriate for ungrafted cultivation in heated greenhouses. The vigor of this cultivar makes it well suited to maintain summer growth. Large beefsteak tomato fruit (230-280 gram) are slightly ribbed with good taste.

- **Item TOM1760**  
  $120.00 (250 pack)
- **Item TOM1760**  
  $450.00 (1,000 pack)

**RAPSODIE**

This is a well balanced plant with less summer vigor than Big Dena. It is a thinner skinned fruit that is best for harvest near full color and short transport to market. The fruit are typically 200 to 260 grams.

- **Item TOM1860**  
  $106.00 (250 pack)
- **Item TOM1860**  
  $392.00 (1,000 pack)

**TOMATO, GRAPE**

*DASHER*

Red grape with a good taste and an average fruit weight of 20 to 25 grams. Open plant with moderate vigor. Really the only grape that we have with higher production. There are some other possibilities as far as yellows, but yield is lower.

- **Item TOM1275**  
  Each $143.55

**TOMATO, CHERRY**

*DRC-564, 250 Seeds*

A cherry tomato that can be sold loose or on trusses. The fruit has excellent red color and taste with fruit that average approximately 18 grams. Similar or just slightly smaller size than Conchita. Higher brix with deeper red color, but may have shorter shelf life than Conchita.

- **Item TOM1900**  
  Each $364.25

**MICRO-TOM / TINY TIM**

Dwarf cherry variety. Good for hanging baskets and small containers.

- **Item TOM3000**  
  Each $4.00

**FAVORITA**

Cherry, red, semi-greenback, average fruit weight 13-17 grams. Slightly stretched. Vigorous growth, long and many double trusses. Excellent fruit shape, good flavor.

- **Item TOM1023**  
  Each $100.60

**CONCHITA**

Cherry tomato with firm fruits. Average fruit weight 20 grams. Fruit tend to be less red- slightly orange with moderately good taste. May have lower brix levels than DRC 564. Consistent producer.

- **Item TOM1034**  
  Each $169.95
**RED DELIGHT**

Shiny and nice deep red cocktail tomatoes. Open plant with strong vigor. Nice dark green plant with good summer behavior. Good shelf life and the truss stem stays green and fresh for a long time. Very strong against cracking.

*Red Delight*, 250 Seeds

Item TOM1109   Each $ 255.35

**EGGPLANT**

**TAURUS**

Purple eggplant with high potential production due to it being very generative and its open plant habit. The shiny fruit are firm and have a small bow and slender shape, its color is very dark. The fruit have excellent shelf life.

*Taurus*, 100 Seeds

Item EGG1001   Each $ 85.10

**CUCUMBER**

**DENALI- Long English**, 100 Seeds

This vigorous and productive long english cultivar has high powdery mildew resistance for summer production and umbrella systems. Denali will maintain medium plant habit through summer stress. The fruit are dark green, 13 to 15 inches long with good shelf life.

Item CUC1900   Each $ 79.05

**UNISTAR- Cocktail**, 100 Seeds

This cocktail cucumber produces approximately 4 inch fruit. Under reproductive conditions, multiple fruit per node are produced.

Item CUC1950   Each $ 93.10

**CUCUMBER, Mini**

**JAWELL**

This cultivar is partially tolerant to powdery mildew and is suitable for lower light production. Low susceptibility to Fusarium in the vigorous yet easy to grow cultivar. Camero can perform well under a variety of conditions.

*Jawell*, 100 Seeds

Item CUC1600   Each $ 68.25

**DISCOVER**

Strong tolerance, vigorous growth. Good fruit length, recommended for late spring crops in the northern areas. Powdery mildew tolerant. Bitter free, resistant to leaf spot and scab.

*Discover*, 100 Seeds

Item CUC1082   Each $ 78.55

**DOMINICA**

Late spring, summer or fall. Good fruit length; easy to balance; high yield potential. Strong powdery mildew tolerance.

*Dominica*, 100 Seeds

Item CUC1100   Each $ 80.55

**ELDORA**

*Eldora*, 100 Seeds

Item CUC1800   Each $ 79.05

**DRL9510**

Good low light option similar to Camaro with slightly smaller fruit size.

*DRL9510*, 100 Seeds

Item CUC2000   $80.35 per pack of 100

**CUCUMBER, Mini**

**TAURUS**

Purple eggplant with high potential production due to it being very generative and its open plant habit. The shiny fruit are firm and have a small bow and slender shape, its color is very dark. The fruit have excellent shelf life.

*Taurus*, 100 Seeds

Item EGG1001   Each $ 85.10

**KOMEETT**

For the heated soilless glasshouse crops and the large size truss harvest segment in Europe and North America. Red, high round shape with an average fruit weight of 165 grams. Consistent all around performer, but does not have powdery mildew resistance.

*Komeett*, 250 Seeds

Item TOM1600   Each $ 138.50

**MANAR**

This powdery mildew tolerant cultivar has strong vigor and excellent fruit quality. Slightly larger fruit than jawell.

*Manar*, 100 Seeds

Item CUC1500   Each $ 51.55

**TOMATO, COCKTAIL**

**DRC 1183**, 250 Seeds

This cocktail truss tomato has an open, labor friendly plant habit with a high yield potential. The firm, light red fruit (35 to 40 grams) is strong against cracking and has good shelf life.

Item TOM1550   Each $ 339.50

**NEW!**

**DISCOVER**

Strong tolerance, vigorous growth. Good fruit length, recommended for late spring crops in the northern areas. Powdery mildew tolerant. Bitter free, resistant to leaf spot and scab.

*Discover*, 100 Seeds

Item CUC1082   Each $ 78.55

**DR510**

Good low light option similar to Camaro with slightly smaller fruit size.

*Dr510*, 100 Seeds

Item CUC2000   $80.35 per pack of 100

**CUCUMBER**

**CAMARO**

This cultivar is partially tolerant to powdery mildew and is suitable for lower light production. Low susceptibility to Fusarium in the vigorous yet easy to grow cultivar. Camero can perform well under a variety of conditions.

*Camaro*, 100 Seeds

Item CUC1700   Each $ 68.25

**DISCOVER**

Strong tolerance, vigorous growth. Good fruit length, recommended for late spring crops in the northern areas. Powdery mildew tolerant. Bitter free, resistant to leaf spot and scab.

*Discover*, 100 Seeds

Item CUC1082   Each $ 78.55
**BELL PEPPER**

**STRIKER (Yellow)**
Known for its strong performance, Striker is an industry leading yellow pepper that is extremely reliable under a majority of growing conditions. The large blocky fruit are uniform, weighing an average of 230 grams. It has high yield potential for producing quality fruit that have good shelf life.

**Striker, 100 Seeds**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEP2102</td>
<td>Striker</td>
<td>$64.55</td>
</tr>
</tbody>
</table>

**FANTASY (Red)**
Blocky fruit shape with beautiful shiny red color. Vigorous yet open plant habit.

**Fantasy, 100 Seeds**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEP2100</td>
<td>Fantasy</td>
<td>$64.55</td>
</tr>
</tbody>
</table>

**PARAMO (Orange)**
Bell Pepper that is 24 - 36 inches in height. Full Sun and water regularly; do not over water. Suitable for growing in containers.

**Paramo, 100 Seeds**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each Price</th>
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</thead>
<tbody>
<tr>
<td>PEP2101</td>
<td>Paramo</td>
<td>$57.45</td>
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</tbody>
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**LETTUCE, BIBB**

**TEODORE- Red Bibb**
A large red butterhead that has ruby coloration half way down the leaf while the lower portion has a brilliant green contrast color. Resistant to Bl: 1-26/Nr/LMV.

**Teodore, 5,000 Seeds**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>LET2015</td>
<td>Teodore</td>
<td>$110.00</td>
</tr>
</tbody>
</table>

**ALEXANDRIA**
An indoor lettuce variety for summer, which produces blonde to medium green heads with medium thick leaves and a large frame. Slow bolting and strong against tipburn. Similar to Flandria, but with a slightly wider range of downy mildew resistance. Bl: 1-23.

**Alexandria, 5,000 Seeds**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>LET2009</td>
<td>Alexandria</td>
<td>$99.00</td>
</tr>
</tbody>
</table>

**FLANDRIA**
Thick-leaved butterhead variety for year-round production; excellent quality and shelf life. The plant has a strong base with few yellow leaves and is strong against tipburn and bolting. Slightly more loose and open head than Rex with a wider range of downy mildew resistance. Resistant to Bl: 1-16,17,19,21.

**Flandria, 5,000 Seeds**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>LET1063</td>
<td>Flandria</td>
<td>$99.00</td>
</tr>
</tbody>
</table>

**NATALIA**
A blonde butterhead lettuce for summer production that was bred and is well adapted for the autumn and spring markets as well. Similar visually to Alexandria and Flandria. Resistant to Bl:1-26.

**Natalia, 5,000 Seeds**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>LET2013</td>
<td>Natalia</td>
<td>$103.00</td>
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</tbody>
</table>

**REX**
This cultivar has been well known as a reliable bibb crop in hydroponic greenhouses for many years. It can be grown as a year round crop, but is well suited for spring and summer production due to being strong against tipburn and bolting. Thick fairly dark green leaves mature to form a clear head. Resistant to Bl 1-7, 10, 11, 12.

**Rex, 5,000 Seeds**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>LET2003</td>
<td>Rex</td>
<td>$99.00</td>
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</tbody>
</table>

**SANTORO RZ**
A larger frame size bibb lettuce with excellent color under warm conditions with a broad resistance package. Leaves are smooth with good resistance to tipburn, and the heads are slow to bolt. This cultivar tends to have larger frame sizes and less dense heads under low light conditions. Resistant to Bl: 1,4-22,24,25/Nr/Pb/LMV.

**Santoro, 5,000 Seeds**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>LET2011</td>
<td>Santoro</td>
<td>$110.00</td>
</tr>
</tbody>
</table>

**SKYPHOS**
A large red butterhead that has ruby coloration half way down the leaf while the lower portion has a brilliant green contrast color. For a red cultivar, Skyphos is slow bolting and resistant to tipburn. Under lower light conditions, the frame size tends to increase and leaf coloration decrease. Resistant to Bl: 1-26/Nr/LMV.

**Skyphos, 5,000 Seeds**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>LET2014</td>
<td>Skyphos</td>
<td>$120.00</td>
</tr>
</tbody>
</table>

**GARDIA**
Butterhead variety similar to Flandria. Strong against tipburn and bolting.

**Gardia, 5,000 Seeds**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Each Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>LET2040</td>
<td>Gardia</td>
<td>$104.00</td>
</tr>
</tbody>
</table>

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All Lettuce Seeds are Pelleted.
LOLLA
CARMESI- Lolla Rossa
This triple red lolla rossa has a deep red color over a large portion of the leaf. It is slow bolting, but may have a slightly slower growth rate than a typical bibb crop. Bl:1-28,30,31/Fol:1/Nr:0
Carmesi, 5000 Seeds
Item LET2025 Each $121.00
ORVILLE- Lolla Rossa
This double red lolla rossa is quite similar to Carmesi in size and growth characteristics, but with a lighter red coloration more concentrated on the edges of the leaves. Bl: 1-31/Nr:0
Orville, 5000 Seeds
Item LET2030 Each $111.00
LOZANO- Lolla Bionda
This lolla bionda has a light green color and a compact frame size. The leaves have a very fine margin and the plant is strong against tipburn. Developed for autumn, winter, and spring greenhouse production. Bl:1-31/Nr:0
Lorano, 5000 Seeds
Item LET2035 Each $123.00

LETTUCE, ROMAINE
SALVIUS- Green Romaine
A tall, dark green romaine cultivar with medium savoyed leaves. Salvius tends to remain open for a longer period of time than Helvius and can have a bit more leaf texture. Bl:1-26,28/Nr:0, IR: Rs
Salvius, 5000 Seeds
Item LET2020 Each $96.00
HELVIUS RZ (41-64 RZ)
Medium green color with a very erect habit with a slight savoy leaves. It has fairly strong resistance to internal burn and is slow bolting. Bred more for main and fall seasons, does not perform as consistently under low light winter conditions. HR: Bl: 1-26/Nr:0, IR: LMV, Rs
Helvius, 5000 Seeds
Item LET2004 Each $80.00

LETTUCE, MIX
Mix Endless Summer, 1000/pack
Item LET2100 List: $75.00
Mix Endless Summer, 100/pack
Item LET2150 List: $10.00
Mix Wonder Wok, 1000/pack
Item LET2200 List: $75.00
Mix Wonder Wok, 100/pack
Item LET2250 List: $10.00

LETTUCE, OAKLEAF
KIREVE
Green oakleaf solid producer in greenhouse production.
Kireve, 5000 Seeds
Item LET2045 $119.00

RUTILAI
Red oakleaf with strong coloration on tip. Strong resistance to edge burn and bolting.
Rutilai, 5000 Seeds
Item LET2050 $105.00

SEED PACKETS
Basil, Packet
Basil, 1 Ounce
Cucumber, 10 Seeds
Lettuce, 100 Seeds
Micro-Toms, 20 Seeds
Pepper, 10 Seeds
Tomato, 20 Seeds

We accept Visa, Mastercard and Discover on all orders at 330-302-4203
High Level of Support and Expertise

One of the biggest advantages of purchasing a hydroponic greenhouse package from CropKing has always been the ongoing technical support that we offer. Our techs keep up to date with the newest products and the best growing methods by testing them first in our research greenhouse. This allows us to make good, practical suggestions to our family of growers.

We offer services that our competition cannot match, from our knowledgeable sales staff to our in-house technical support team with many years of hydroponic growing experience. Our products and competitive pricing create CropKing customers, but our great support keeps bringing them back.

For nearly three decades, we have been the nation’s hydroponics leader and have been helping hydroponic growers throughout the U.S. and across the globe to grow premium hydroponic vegetables. CropKing provides everything needed for hydroponic food production; from greenhouse structures, to state of the art growing systems, training, consulting and supplies.

Why Buy Local?

Locally produced vegetables taste better and are fresher than produce which has been shipped for long distances. Today’s consumers demand produce that is not only fresh, but also safe and free of pesticides for their family. Hydroponic tomatoes and lettuce, grown locally and without chemical pesticides will meet that demand. Most of our hydroponic growers are delivering their product within a 100 mile radius of their greenhouse. Why are locally grown vegetables more nutritious? Because the average fruit or vegetable at a grocery store may have already traveled more than 1500 miles and lost much of its nutrition along the way.

There are several possibilities for growing and marketing local, hydroponic produce in a greenhouse setting including vine ripened tomatoes, flavorful gourmet lettuce, herbs, and European cucumbers.

Buying local produce helps build communities. You can help ensure that small farms survive in your community and that future generations will have access to nourishing, flavorful and abundant produce by supporting your local farmers.
Hydroponic or Organic
Is There a Difference?

Many individuals believe that hydroponic and organic are the same thing. While there are certain similarities, there are definite differences between the two cultures. Most consumers who purchase organic produce have a high level of concern about their health and want to make sure that they consume produce which is as safe and nutritious as possible.

Small local hydroponic growers are very concerned about having a pesticide free environment inside the greenhouse. Many hydroponic growers use bees for pollination. Any pesticide would kill off the bees who are doing the pollination work in the greenhouse. The biggest difference between a hydroponic grower and an organic grower is they fertilizers that they use. Hydroponic growers used fertilizers that are mined out of the ground and can be dissolved in water. Organic growers use fertilizers that come from a living source such as manure, blood meal or fish emulsion. Whether plants are grown organically or hydroponically, they take in dissolved minerals or “ions” through their root system and convert it through photosynthesis. Whether phosphorus comes from mined rock phosphate or from bat guano, phosphorus is phosphorus. It can only be used by the plant as an “ion” of phosphorus… a charged elemental particle dissolved in water.

Both hydroponic plant growth and organic plant growth are looking for the same results: safe, nutritious vegetables that are not contaminated by pesticides or herbicides. The question becomes how do the two different cultures go about getting their desired results.

**Differences Between Hydroponic and Organic Growing:**

**Hydroponic:**
1. Hydroponics feed the plants directly.
2. We use clean water.
3. Plants use less energy to find the nutrients as they are dissolved in water that is fed directly to the roots.
4. We are very water conservative and used 1/10 of the amount of water that traditional soil growing uses.
5. Soil quality is not a factor as there is no soil involved.
6. Hydroponic vegetables are gown in a controlled environment.
7. Hydroponic produce is clean as it does not come in contact with soil.

**Organic:**
1. Organics feeds the soil.
2. Organics uses rain water and other available irrigation water.
3. Plants must spend more of their energy creating root mass to search out the necessary nutrients in the soil.
4. Organic production requires more water because much of it leaches away down into the soil.
5. Soil quality is very important to plant growth.
6. The Organic environment is dependent on the weather (rain, wind storms, etc).
7. Organic produce can have soil or animal residue on it, from the environment and should be washed.

The debate can continue as long as there are farmers, regardless of the growing method. For those of us who do not want to eat vegetables that are coated with pesticides, there are few choices. No matter the growing method, we know that clean food is better food. The search for safe, nutritious food needs to start outside your own front door. The best way to know if “organically grown” produce or any produce is clean and safe, is to know your farmer. We cannot be sure of the safety of either organic or hydroponic vegetables that are grown in foreign countries, and what sprays or contamination may be on them. Buying food from a local farmer is the final answer to eating the best and safest possible produce.
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Customer Service E-mail   cropking@cropking.com

Principles
Marilyn Brentlinger   mbrent@cropking.com
Paul Brentlinger, President   pbrent@cropking.com
HOW TO USE THIS CATALOG

Our entire product line is organized according to use in this catalog to make it easy to find the items you're looking for. You’ll also find an alphabetical index of products on page 71.

A product’s item number usually begins with the first three letters of the general name of the product. Some of them may begin with the first three letters of the category name that they would come under. For example, Calcium Nitrate would be found under “Fertilizer”, with an item number beginning with the letters “FER”.

Please be sure to use the Item Number when ordering. This will enable us to be sure that we're sending you exactly what you want. Also, let us know if you have suggestions for improving our catalog.

PLACING ORDERS

Your customer account number can be found on the left side of an order or invoice.

Occasionally, growers have different ship to addresses. Please specify to the person taking your order which address you wish your order shipped to. If any part of your address is incorrect, please let us know so that we can correct it.

TERMS AND ORDERING INFORMATION

Mailing Address:
CropKing Inc.
134 West Drive
Lodi, Ohio 44254
Phone: 330-302-4203  Fax: 330-302-4204

Hours:
Monday through Friday: 8:00 a.m. to 5:00 p.m. E.S.T.

Web Site:
www.cropking.com

E-Mail:
cropking@cropking.com

What About Credit?
We offer a variety of payment options, to allow you to choose the most convenient way to purchase your products. We accept most major credit cards including Visa, MasterCard, Discover, or a program called a Farm Plan. If you’d like to open a Farm Plan account with us, just let us know and we’ll be happy to send you an application.

We do not ship COD.

Check Policy:
Unless you are pre-approved for personal checks, your order will be held for ten days before shipping to allow time for the check to clear. If you are in a hurry and need your order shipped immediately, please send a Cashier’s or Certified Check or Money Order. There will be a $20.00 charge for any returned checks.

Minimum Orders:
We have a minimum order policy of $25.00. Orders less than $25 will result in a $5.00 service fee. To avoid this charge, try to plan ahead and order at least $25 worth of product.

Hazardous Materials:
All hazardous materials ships FEDEX(example, Potassium Nitrate) and are charged an additional fee of $28.50.

Foreign Shipments:
All foreign shipments are shipped with incoterms of EXW.

Hawaii and Alaska Shipments:
Actual shipping charges will apply along with any special handling charges required.

CPU:
Customer pickup available. Must call for arrangements.

Damage and Loss Replacement Policy:
The customer is responsible for inspecting all shipments—either refusing the shipment for damage or making any claims for damage with the carrier. The customer will have to obtain a refund from the trucking company if the customer accepts damaged merchandise.

Be sure to examine your shipment and have the driver note any discrepancies, damage, or appearance of damage or rough handling on the bill of lading.

Returned Merchandise:
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