


# Get Growing NFT 15K

## Small Business Bundle



		Call us for more information: (800) 458-6543	AmHydro.com
<b>Get Growing! NFT 15K Small Business Bundle</b>			6/24/16
Hydroponic System:	<b>NFT 15K</b>	3,780 Plants harvested per week (6 week cycle)	
Greenhouse:	<b>32' x 144'</b>	Standard size	(4,608 SQFT - quonset style)
Plant Sites:	<b>15,120</b>	Total sites	
Configuration of growing system:	7,560	Finishing	(2wks - 50% of NFT Sites)
	7,560	Nursery	(2wks - 50% of NFT Sites)
	9,936	Propagation	(2 wks - All Special Sites)
<b>Get Growing! NFT 15K Small Business Bundle</b>		<b>Quantity</b>	<b>Description</b>
Hydroponics NFT 15K Kit:			
	<i>GroClean</i> NFT Channel:	420	<i>GroClean</i> NFT Channel (12' Finishing Sections - HDPE)
		105	<i>GroClean</i> NFT Channel (12' Nursery Sections - HDPE)
	Plumbing:	22	10' Finishing manifolds
		3	10' Nursery manifolds
		25	10' Covered collectors with Drip Cap
		1	PVC package to plumb in system & reservoir
	Table Frames/Benching:	25	10' sections of AmHydro Pro table frames
	Tank House:	1	Kerick float valve
		1	Venturi
		2	1.5 horse power pumps (one is for backup)
		1	Water meter
		1	1,800 gallon Reservoir with manhole extensions (ordered locally)
	Controller Package:	1	NutriDose 1 controller with peristaltic pumps
		2	30 gallon nutrient stock tanks
		1	5 gallon acid tank
		1	NutriTest
		1	pH Probe (extra)
	Propagation Kit:	2	11-tray propagation system kit (8' x 12')
		2	11-tray propagation heating mat kit (4 heat mats with thermostat)
		1	Pump, float valve, float valve plumbing, water meter and 100 gal reservoir
		3	Lighting (for propagation only) - HID fixtures
		1	Vacuum seeder
	Additional Items:	1	Annual Grower Support
		2	Channel scrub brush and handle
		1	Electrical panel with mounted controllers
		1	Tool Kit
		1	Ground cover (for the floor of greenhouse)
	Installation of Hydroponics system	2	days supervision of system installation by an AmHydro Certified installer
	Grower Instruction	EITHER	- 2 days FREE attendance at AmHydro NFT Grower Seminar
		OR	- 1 day consulting at your greenhouse by AmHydro consultant
<b>Get Growing! Small Bus. Greenhouse (30' x 144') Kit</b>		1	Greenhouse plans, site-prep checklist
		1	Greenhouse quonset structure & covering, vents, heater, fans
		1	Environmental controller- Wadsworth
		1	CO2 burner & controller
<b>Get Growing! 15k Pro Grower Starter Kit (3 months)</b>	3 mos		Seeds (approx 50k) - 5-7 variety sample pack
		1	Consulting for varieties and customized nutrients
	3 mos		Oasis (thin cut) (approx 16 cases)
	3 mos		Nutrients 20kg (approx 12 bags) - Custom lettuce nutrient
		2	Essential Plus (1 gal)
		1	Buffer solution pH 4 & 7 (16 oz)
		1	Calibration solution 27.7 (16 oz)
		6	pH Down 10% (1 gal)
		2	pH Up 10% (1 gal)
	1,500		Plastic 'stakes' for labeling
		3	Water testing
<b>Get Growing! NFT 15K Small Business Bundle Total</b>			<b>\$100,000</b>
<b>Not Included in this package. Owner responsible for:</b>			
Capital investment - \$100,000+			
Site prep & construction for the greenhouse which includes:			
5,000+ sqft of space and building permits (if required)			
Utilities brought to the greenhouse site			
Level ground/ area for greenhouse			
Construction of greenhouse			
Ability to dig hole for the 1,800 gallon reservoir (approx 16'x9'x4.5')			
4-5 laborers to construct greenhouse (local tradesmen may be needed)			
Scissor lift or boom truck to raise greenhouse arches			
Freight for greenhouse & NFT system			
Travel expenses for AmHydro growing consultant (if this option is chosen)			
Airfare for AmHydro Install Supervisor			

- Finishing Tables
- Nursery Tables
- Propagation Tables

**NFT System Specifications**

**Harvest:**

**Crop Turn (CTT)** - A number determined by harvested plants per year, per finishing plant site.

13 CTT - 1,890 plants per week (8 week harvest cycle)

17 CTT - 2,520 plants per week (7 week harvest cycle)

26 CTT - 3,780 plants per week (6 week harvest cycle)

**System:**

Finishing sites: 7,560 (420 channels)

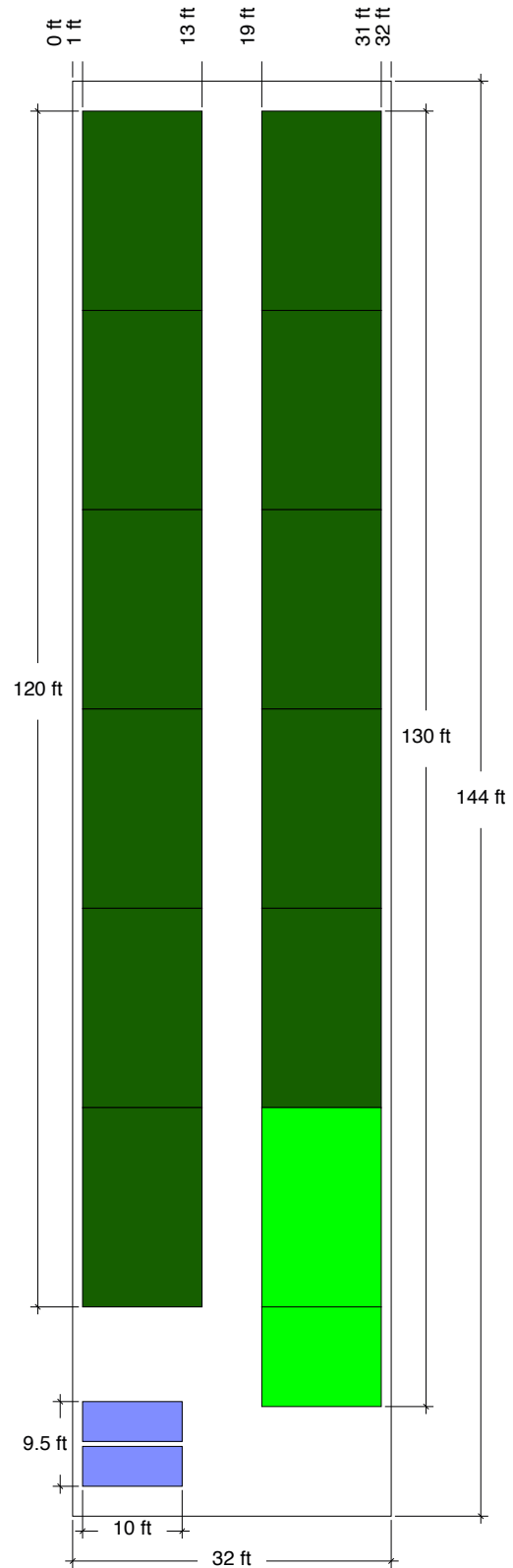
Nursery sites: 7,560 (105 channels)

Propagation sites: 12,144 (22 trays)

Reservoir size: 1,800 gallons

Greenhouse square foot: 4,608

NFT growing area square foot: 3,000



## AmHydro's Get Growing - Small Business 15K Bundle

### System Specifications

Total Square feet of system:	_____	3,000
Lineal feet of NFT system:	_____	250
Water usage per day:	_____	710
Recommended reservoir size:	_____	1,800
Greenhouse size:	_____	30x144
Number of bays:	_____	1
Number of finishing plant sites:	_____	7,560
Number of nursery plant sites:	_____	7,560
Number of propagation plant sites:	_____	12,144

### Projected harvest numbers per week

13 Crop turns per year (8 week seed to harvest):	_____	1,890
17.33 Crop turns per year (7 week seed to harvest):	_____	2,520
26 Crop turns per year (6 week seed to harvest):	_____	3,780



## NFT System Details

Our AmHydro Pro NFT system has been used in the field for over 30 years and has been refined for ease of use, longevity and versatility.

Each NFT system is comprised of 10 foot modules that connect together to make desired table length. The **15K NFT System** uses 25 of these 10 foot modules.

Each AmHydro Pro NFT module is made from **five** components that have been designed and refined over 30 years.

**TABLE FRAME** - Table frames are made from 10ga to 18ga galvanized steel that come pre-drilled for ease of assembly. Table frames are put together using a 5/16” hex bit, power drill and speed square.

**FEEDER** - Each feeder manifold feeds a 10’ section of table and is made from virgin LDPE plastic. These manifolds feed from the center for even pressure. Each manifold comes with a clean-out fitting on each end for maintenance and is controlled with a heavy duty PVC ball valve. Our leak-proof AmHydro grommet secures a 1/4” micro-tube for even delivery to each AmHydro channel. No glue is required when assembling feeder for ease of assembly and maintenance.

**COLLECTOR** - Each covered collector returns nutrient water from a 10’ section of table and is made from dual-wall LDPE pipe. Collectors have a hinged cover to keep sunlight off draining end of channels. No glue is required when assembling collector for ease of assembly and maintenance. Our AmHydro Drip Cap is attached, in conjunction with each collector, to eliminate leaks.

**FINISHING CHANNEL** - Finishing channels are 144” long and come with 1.75” holes on 7.75” center’s. There are 18 holes per channel. Our channels are made from 100% virgin FDA approved HDPE.

**NURSERY CHANNEL** - Nursery channels are 144” long and come with 1.6875” holes on 2” center’s. There are 72 holes per channel. These channels are also made from 100% virgin FDA approved HDPE. Both channel types are ready to use, right off the pallet.

## Tank House Components

The tank house components are the heart of the NFT system. These components can be housed inside the working greenhouse or in a separate building we term as head house. We can source the main reservoir, 1,200 gallon - below grade, but usually recommend the grower to source due to shipping requirements.

**DOSE BOSS CONTROLLER (DBC)** - The DBC takes care of your reservoir so you don't have to. This unit will monitor the pH and Nutrient concentration (EC/CF) of your working solution and make the necessary adjustments. Unit is touch screen and network compatible.

**STOCK TANKS** - Nutrient stock tanks are made from thick HDPE and will last a lifetime. pH stock tank is made to withstand breakdown form acidity of pH adjuster.

**PUMP** - The *15K NFT System* uses (1) 1.5HP pump. We use Max-E-Pro centrifugal pumps made by Sta-Rite for durability and longevity. We always include an extra pump.

**FLOAT VALVE AND WATER METER** - Float valve is a 3/4", 37 GPM Kerick valve and the water meter measures how much water your system is using per day/week.

## Propagation System

We have a handful of propagation systems. The *15K NFT System* utilizes the 812 propagation system. This system is the perfect size and most importantly, provides the necessary number of propagation sites to feed your nursery channels. All of our propagation systems are recirculating and use our commercial grade AmHydro propagation trays (cMPT). The 812 Propagation System is a stand-alone system that come complete with everything required

The propagation stage is one of the most important as it sets the pace for your harvest times. Strong seedlings make for quicker crop turns. The *15K NFT System* comes with a bottom heat package to keep your seedling at optimum temperature.



## Growing Supplies

**NUTRIENTS** - Our mineral fertilizers are manufactured right here at AmHydro and have been used in the field for over 25 years. Our two-part powders are made from the purest commercial grade minerals that follow California's strict guidelines on standards and quality. The **15K NFT System** comes with a 3 month supply (12 cases).

**GROWING MEDIUM** - We offer exclusively Oasis propagation cubes manufacture my Smithers Oasis. We have found them to be the most reliable and consistent and the easiest to work with. The **15K NFT System** comes with 1" thin-cut Oasis.

**BUFFERS** - Standard 4&7 buffers for calibrating pH probes on DBC controllers and hand-held meters as well as standard 27.7 calibration solution for CF probes.

**pH ADJUSTER** - Standard food grade 10% pH down and pH up.

**WATER TESTING** - The **15K NFT System** comes with (3) water tests. One will be used in the very beginning to see if water treatment is necessary. The remaining (2) are for monitoring the nutrient balance within the recirculating NFT system.

**SEEDS** - The **15K NFT System** comes with high quality, pelleted seeds. We provide enough for 3 months supply.

## Growers Support - The AmHydro Advantage™

All AmHydro systems are designed and manufactured to be the best in the industry. The equipment purchase, however, is only a first step in setting up a successful hydroponics business. That is why the **15K NFT System** come with AmHydro Advantage™, a specialized service and support program aimed at giving you the information you need.

Grower/Technical Support: American Hydroponics provides the grower with growing and technical support regarding any phase of the Hydroponic System for a twelve-month period commencing the date the customer receives system. Grower and technical support will be provided through faxes, email, Skype, and/or telephone communication. Our support covers installation assistance of the hydroponic system and includes advice/recommendations related to seed selection, propagation techniques, crop turn strategy, ergonomics, nutrient/water/tissue analysis, problem resolution, environmental control, how to anticipate and address upcoming climate change adjustments, packaging and general marketing strategies. Our goal is to maximize crop production at every stage and assist growers in becoming competent and successful in their growing operation. Extra charges for site visit, travel, custom parts and systems.

## Ovaltech III Greenhouse



SCOPE OF PROPOSAL: This proposal is for the supply of a Harnois Ovaltech III Automated Vent High Tunnel Greenhouse Systems, complete with foundation kit, Ovaltech III pre-engineered structure with the following specifications and scope of work:

Number of Buildings	1 Greenhouse
Building Style	Ovaltech III
Width	32 feet
Length	144 feet
Area	3,608 square feet
Arch Spacing	6 feet
Post Spacing	12 feet



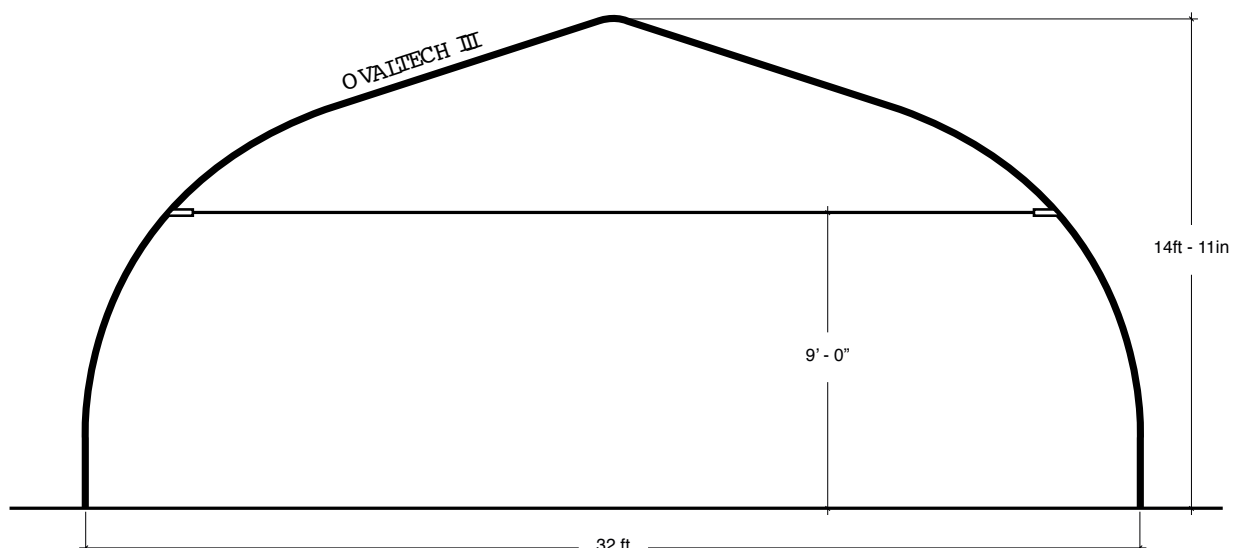
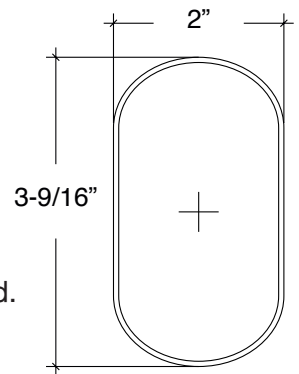


## Design

- Commercial Greenhouses generally fall under the greenhouse section of the Farm Building Code section of the international Building Code.
- The Ovaltech III Greenhouse exceeds the requirements of this section of code.
- The Ovaltech III with the oval arches spaced every 6 feet, has the following load specs:  
 Max Snow Load: 30 pounds per foot squared  
 Max Wind Load: 105 MPH

### The Ovaltech III Gothic shape provides the following benefits

- Minimum snow build-up on the structure.
- Helps the condensation to flow to baseboard of greenhouse.
- High side clearance maximizes the available space for your crop.
- All steel components are Galvalume and clear coated (no black poly markings).
- Curved braces and gable end diagonals ensure the structure stays properly aligned.
- “Swedged” ends simplify and shorten the set up time.
- Ovaltech III’s larger oval tube (2 inch by 3-9/16 inch) arch which offers more light transmission, less shadowing and increasing span without reducing loading capacity, no ‘webbing’ required.
- Bolt Fasteners: Nickel/Cadmium for high strength/corrosion resistant performance.



## Foundation

- STANDARD FOUNDATION KITS: Anchor with base plate for existing concrete, Installed with Hilti anchor bolts.

## Structural Components

- OVALTECH III STRUCTURE FOR DOUBLE POLY COVER: Including 32' galvanized steel pre-drilled 3-9/16 inch by 2 inch oval rib arches every 6 feet. Straight ridge tube, corner diagonals, end ribs with wire lock and 6 foot poly splice, tie plates for wood baseboard (wood supplies locally), nuts/bolts and attachments.
- 2 EXTRA RUNS 6 FOOT CURVED BRACES: 1-1/4 inches diameter includes attachments.
- CROSS-TIE SETS: 1.25 inch galvanized steel tube with two supports on each arch. Allows for superior snow and wind load as well as crop and equipment support.
- 2 STANDARD STEEL GABLE ENDS FOR 8MM TWIN-WALL POLYCARBONATE COVERING: Including vertical oval tube posts with anchor tubes, horizontal purlins (1.25 inch by 1.25 inch), steel baseboard, aluminum profiles, nuts/bolts and attachments, top vinyl flashing.

## Doors

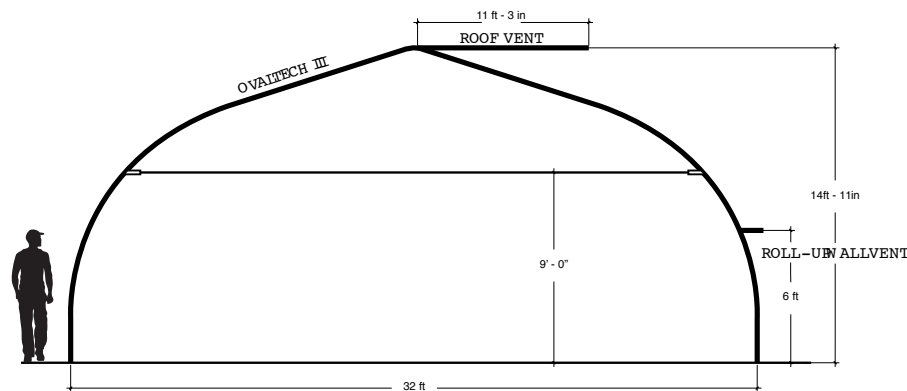
- 2 SLIDING DOOR KITS: for steel end walls, 8 foot wide by 8 foot tall, consisting of two sliding doors, of galvanized steel construction, complete with track, supports, stoppers, wheels, and all nuts and bolts.
- ONE SERVICE DOOR: Overall dimension: 35-3/8 inches wide by 82-3/8 inches tall insulated door. With frame, hinges, handle and key locking hardware.

## Roll-up sidewalls

- 2 ROLL UP SIDE KITS: Including 'Wire-Tek' combined poly locking system and base support (wood stringer NOT required at roll-up height), geared/self-stopping manual crank, roll-up tube with film collars, air inflation jumper and skirting support.

## Mid-roof vents

- ONE CONTINUOUS VENT SYSTEM: aluminum top/bottom sills and rails, galvanized vertical steel stiffeners, screws and closures for glazing. Double toothed steel rack and pinions, including couplings and shaft brackets, includes couplings and shaft hangers, stop collars.
- ONE MOTORIZATION KIT: for vent, includes Ridder motor/gear box, relay kit and motor starter.



## Covering materials

- ROOF SECTION: Sun Selector™ films are highly advanced, long lasting multi layer photo selective films for use in greenhouse and tunnel covering applications. Anti-drip effect by increasing the surface tension of the film through AD additives, we have a significant reduction on the water droplets under the films, improving light transmission and preventing dripping over the crops.
- One roll of polyethylene file, SUPER UVA 4 year, 6 mil, 54 foot outer layer
- One roll of poly file, 4 year THERMAL with anti-fog, 6 mil, 54 foot inner layer
- LS Econet 4045 Max. It has holes of .40 mm by .45 mm, allowing 96% direct light transmission and only 25% air reduction. Located on wall vents.
- END WALLS: Lexan 'Thermo clear' plus sheet has on two sides, proprietary UV protected surface providing long-term optical quality under intensive UV exposure. 8mm twin walled polycarbonate glazing with anti-condensate, as required to cover two complete end walls.
- ROLLUP SKIRTING: Two rolls of Sun Selector polyethylene film, SUPER UVA 4 year, 6 mil at 6 feet.
- LS Econet 4045 Max. It has holes of .40 mm by .45 mm, allowing 96% direct light transmission and only 25% air reduction. Located on wall vents.
- INFLATION KIT: One inflation fan system, complete with fan for outside install, steel shroud, Styrofoam insulation, adjustable blower with 5 inch tee, poly adapters, 20 feet of 5 inch diameter poly tube.



## Equipment

- **AIR DISTRIBUTION SYSTEM:** Canarm's HAF18 Horizontal airflow fan is designed to provide gentle circulation of air in greenhouses and other agricultural applications. It features open guard spacing for better air distribution and a hanging bracket, 115 V, 8 foot grounded cord and plug included. When suspended, the fan can be rotated up and down in swivel 360° for optimal control of airstream. Suitable for wet locations.
- **UNIT HEATERS:** Modine heating units. 200K BTU each. Powered by natural gas or propane. Designed especially for greenhouses.
- Stainless steel heat exchanger come standard on all units to withstand corrosive combustion air found inside a greenhouse.
- 10 year heat exchanger warranty is standard.
- Constructed with Modine's proven tubular heat exchanger design
- Installs quickly and easy with field wiring connections and knockouts for quick access to gas and electricity
- Standard power exhaust simplifies side-wall or roof venting with small 4 inch diameter vent pipe
- Permanently-lubricated motor for trouble-free dependability
- 80% thermal efficiency
- Made in the USA
- Includes heater hanger kits and horizontal exhaust chimney.

