The Greenhouse Structure

The greenhouse structure was developed by Airstream Innovations. The unique design of our commercial greenhouses provide enhanced growth in a positive pressure protected structure that meets or exceeds regulatory requirements (for insect protection) at a fraction of the cost and build time of a conventional greenhouse. These unique structures also bring year-round growing and protection to a variety of commercial farming operations in many climates, while handling winds of up to 80 miles per hour. The structures provide an optimal growing environment that enable growers to harvest highly tasty fruits and vegetables without costly insecticides, pesticides, fungicides, and herbicides.

Optimal airflow conditions enhance an array of agricultural and industrial operations ranging from plant, fish and livestock production to material drying and/or storage. These unique structures also provide a cost effective means of protection for sports and recreation activities, especially in cold climates.

Our wind-assisted air-supported greenhouse structures are designed to be inherently organic, by preventing the entry of pest insects and by maintaining proper airflow to control humidity levels and reduce fungal pressures. Our greenhouse structures have been certified by the USDA for protection of crops against insects that vector disease, such as the Asian citrus pysllid, which carries Huanglongbing and has devastated citrus trees around the world.

Airstream Structures are available in a number of footprints and optional mechanical services such as blackout screens (Easily deployed) lighting systems, as well as heating and cooling equipment.

With the ability to control airflow rates from zero to 6 miles per hour throughout the structure, the automatic control system can manage almost any humidity and temperature variation automatically. The wind assist air intake system utilizes natures own energy to reduce fan power required to manage the crop as well as to maintain an inflated structure. This feature can save as much as 50% of the energy required when no wind exists.

Cost Estimates

A typical 13,870 square foot Airstream greenhouse is delivered and erected on site is typically priced at $140,000.00 U.S. Dollars, or less than $12.50/square foot.
The standard structure includes;

- Internal Pressure Regulation
- 0-140,000cfm Ventilation
- High Strength Greenhouse Film (5 Year Service Life)
- Perimeter Skirt Anchoring
- Intake Insect Net-75 Mesh-Thrips Net
- 8 Foot by 8 Foot Automatically controlled Vent and Net Door
- 3 Foot by 6 Foot Man/Equipment Door
- Automatic Back Up Generator
- 1 Year Airstream Warranty

Where the following optional equipment is requested (dependant on location/climate) a completed fully operational ¼ acre facility (including the following budget Items) can be delivered for approximately $30.00/square foot.

Options include:

- Variable fogging system with controls
- Supplemental lighting support structures
- HPS/Ceramic Metal Halide or LED Lighting
- Timer Controlled Automatic Blackout Curtains
- 1.3 MBTUH Natural Gas or Propane Heater/Snow Melt Heater
- Greenhouse Control System
- Analog Temperature/Humidity Sensors.

Return on Investment Benefits

Where as few as four crops are delivered annually with a plant production rate of 8 oz. per crop (on average) the capital investment for a fully functional greenhouse ranges from $82,000 to $380,000.00. This represents a capital investment amounting to between 21% (smallest greenhouse) to only 10% for typical ¼ acre greenhouses and a solid first year net profit scenario.

Payment and Delivery

Due to the current demand for the Airstream Greenhouse Product, delivery and greenhouse erection and commissioning is estimated at 90 days from date of the 70% deposit payment. Specific Pricing is based on delivery location and site conditions. (Site to be inspected prior to receiving deposit.)

Photo Gallery

Greenhouses come is sizes from 22 feet wide and 90 feet long, to an entire full acre in size, with a width if 100 feet and 33 feet tall.

The structural “skin” is able to deliver high value of diffuse light and has a life cycle of 5 years. The unique diffuse light greenhouse cover maximizes U.V. light as well and providing light to the lower canopy area of crops. Optimal air flow rates for each specific stage of crop development can be achieved consistently for almost any temperature and humidity situation, allowing for optimal transpiration of moisture from the underside of leaves, which maintains lower leaf temperature, excellent moisture removal and hence increased plant intake of minerals and other nutrients from the soil.

Arizona Cannabis Greenhouse –Fogging Action

Project Cost Breakdown- ¼ Greenhouse Operations-Example

The following Table A summarizes the Capital Costs of the Greenhouse Structure and Associated Equipment.

Agricuctural Innovations						
Airstream Innovation Structure	**1/4 Acre Structure**					
Cost Breakdown						
Typical 13,870 Square Feet	**13,870**		**Square Feet**			
Green House Cost	$ 92,000.00					
Cost per Square Foot			**$ 6.63**	**Square Foot**		
Installation	$ 44,000.00					
Freight	$ 3,000.00		**Cost Erected**			
Structure/Delivery/Installation-Total	**$ 139,000.00**		**$ 10.02**	**Square Foot**		
Optional Equipment						
Fogging (Cooling)	$ 23,000.00					
Lighting Support Frames	$ 23,000.00					
270 1kW HPS Lamps	$ 124,200.00		**$ 500.00**	**Per Fixture**		
Timer Controller Rollout Black Out	$ 34,500.00					
Commercial Nat. Gas Heater	$ 26,450.00					
Greenhouse Controller	$ 3,450.00					
Analog Temperature Humidity Sensors	$ 920.00					
Optional Total	**$ 235,520.00**		**$ 16.98**	**Square Foot**		
All In Final Built-Out Facility- 5 Years	**$ 374,520.00**	**Total + Taxes**				
			Cost Erected			
			$ 27.00	**Square Foot**		

*Notes: Land Costs Not included. Installation of accessories is specific to location and equipment requested.

The following Table B summarizes a conservative *Projected Income* over the first year of operations

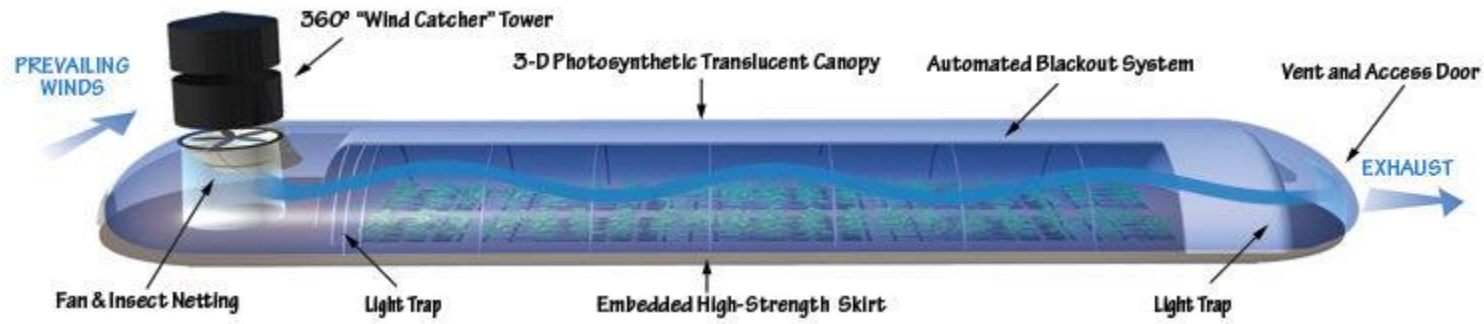
Income Estimates			
Number of Plants Per Crop	1000		
Projected Number of Annual Crops	4		
Projected Annual Average (Weighted 8 oz./pl	2000		*(8oz. Average per plant over the Year.
Current Wholesale Market Value/16 Ounces	$ 1,500		
Annual Projected Income		**$ 3,000,000**	

The following Table C summarizes the *Annual Operating Expenses* for the Facility including Management Fees for the facility including Wholesale Distribution Costs.

Annual Operating Expenses			
Cost for 12" Plants-Strain A @$14.00	$ (58,000)		*9 Square Feet of area per plant, +/-4000 plants
Labour Costs Extended from Summary	$ (815,000)		* See Sheet Two for Breakdown
Cost of Lighting@ $0.25/kw	$ (145,800)		* 270 Lights operating 12 hours/day for 180 days
Cost of water	$ (20,000)		
Nutrients and Soil	$ (50,000)		
Cost of ventilation@ $0.25/kW	$ (15,330)		
Farm Management and Sales Role 25%	$ (187,500)		
Total Operting Costs Per 1/4 Acre-1,000 Plants		**$ (1,291,630)**	
Profit - Projected Income less Variable Expenses		**$ 1,708,370**	**Annual Projected Positive Cash Flow**
First Year Operations - Capital Purchases			
Greenhouse Operations	$ (385,000)		
15% Budget Variable	$ (57,750)		
Land Purchase and preperations	$ (750,000)		
Allowance Projected for project management for Capital Project set-up, documentation and commissioning.	$ (120,000)		
Total Capital Investment		**$ (1,312,750)**	
Net First Year Positive Cash Flow after All Capital and Operating Costs			**$ 395,620 U.S. Dollars**

Media Releases and Real Testimony

These tables present a business opportunity to cover all Capital and operating expenses in a single year of operations, while still generating a reasonable profit at wholesale product prices.

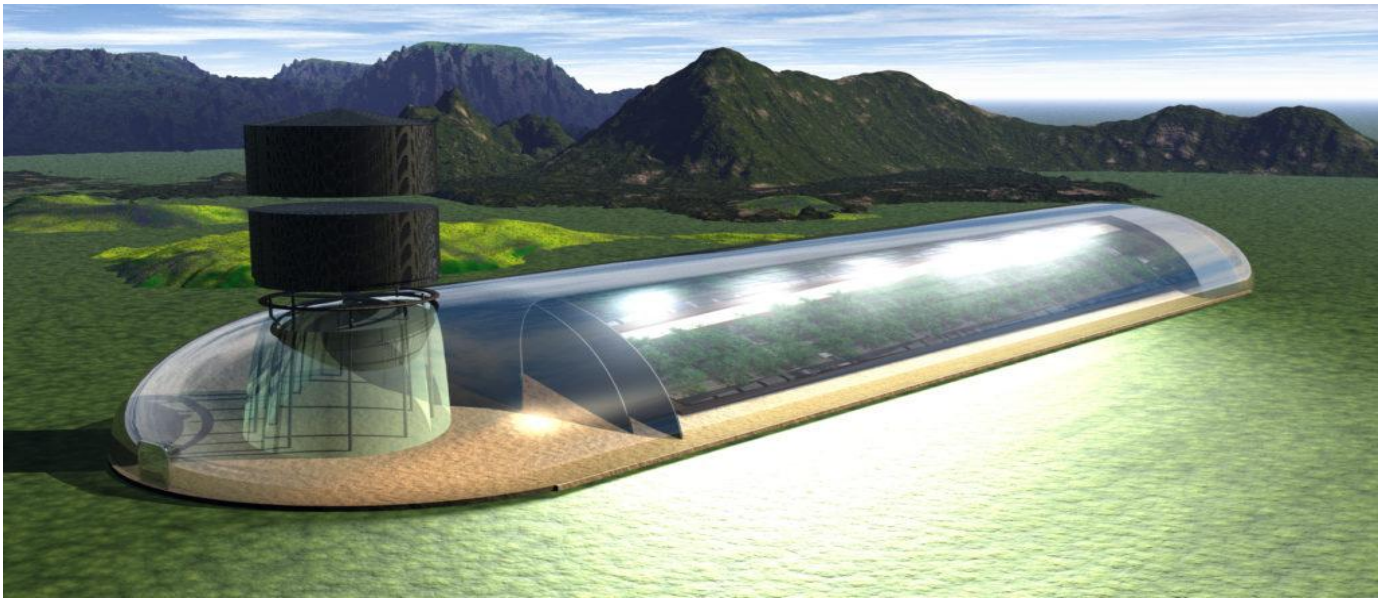


Airstream Mini-Series Greenhouses

Posted on March 25, 2017

SOLANA BEACH — Airstream Innovations is using their 3rd exhibition at the CannaGrow Expo in Reno to formally announce their new line of positive pressure greenhouses designed to meet the needs of Tier 1 and Tier 2 Cannabis growers. The new *Mini-Series* includes the *Mini*, *MiniMax*, and *MiniMaximilian* dual-skinned, wind-assisted, air-supported models. All three Minis offer the same benefits of Airstream's larger quarter and half acre production systems. In addition to the automated ventilation and pest protection of their larger models, Airstream's *Mini-Series* go much further by including a fully automated light deprivation/abatement sub-structure inside their patented inflated dome.

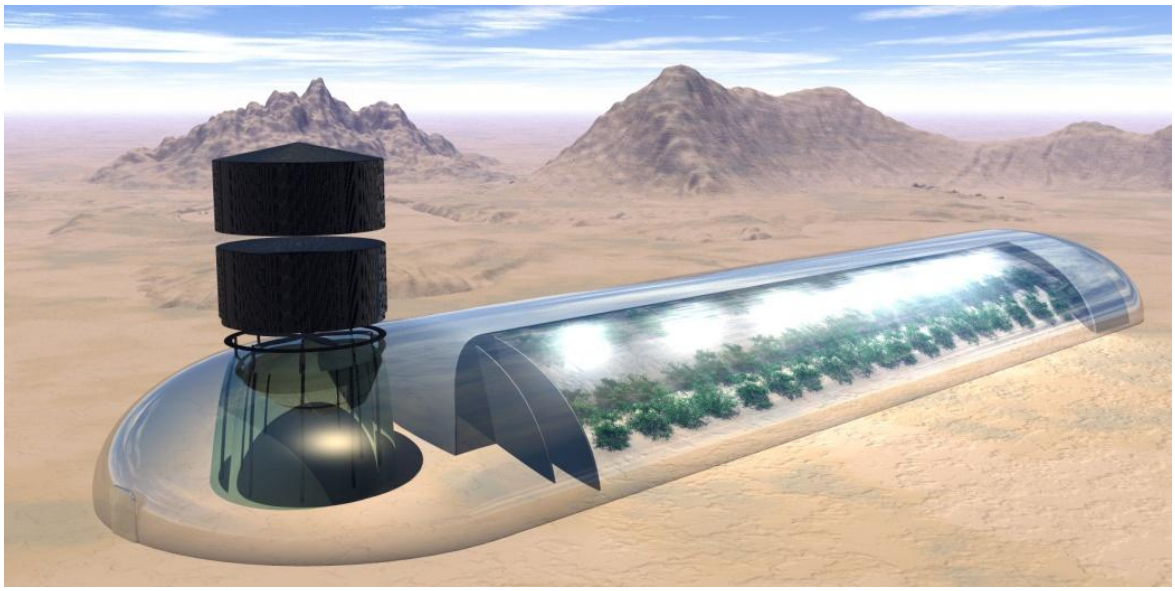
Literally a greenhouse within a greenhouse, a light-duty steel-hooped frame is erected within the superstructure that not only holds light fixtures but features a programmable automated roll out curtain. Curtain options include clear poly, black, or white or combinations thereof to maximize their intended use. This second (or even a third) skin provides growers the ability to pump heat between the two canopies to insulate their crop. Even without adding heat, field tests are showing temperature increases inside the substructure up to 30 degrees; saving costly heating bills. For the burgeoning cannabis market, this works as an automated blackout system (including light traps) required for many popular strains.



The *Mini-Series* greenhouses are all 22 feet wide with lengths up to 150 feet and feature a single wind-intake tower and industrial-scale variable speed fan at one end of the structure. The fan runs on municipal power and a backup generator is included in case of power failure. The internal pressure is automatically regulated up to 35,000 cubic feet per minute through a vent/access door at the opposite end. The door opens or closes based on an algorithm that maximizes plant transpiration by creating a 4 to 6 mile an hour airflow the entire length of the structure directly through the heart of the plant canopy. Once inflated, it takes only a 15 mile per hour wind to sustain structural integrity.

"I knew nothing could grow without airflow," Chelf explains. "And I thought if I could work with natural forces, like the wind, maybe I could create a structure that held itself up with very little energy."
Airflow is just as critical to photosynthesis as light, water, and minerals. If there's not enough, the leaves get too wet and disease and fungus can take hold. When they are too dry, photosynthesis slows or stops altogether. The right amount of moving air makes crops grow more efficiently, he says, adding that his organic strawberry plants use one-third the water and produce five times the berries compared to those grown in fields.

Another important feature Chelf includes in every Airstream greenhouse is his USDA certified pest protection solution. As air enters the structure through the "wind-catcher" towers, it is pushed through the finest thrip-proof netting available. Insects as small as .5 microns are captured before ever reaching the plants. In just the last four years, this has benefited a half dozen citrus nurseries who have installed over a million square feet combined of Airstream's greenhouses growing trees that can be sold anywhere on earth, not just within the quarantine areas — indefinitely sustaining their business model.



The fact that Airstream's existing clients use little if any fungicides or pesticides on their crops is a boon for cannabis growers who are under increased scrutiny for using suspect chemicals. In fact, well-established Arizona and Washington State medical cannabis Tier 3 licensees are already adopting Airstream's technology with over 80 thousand square feet in various stages of implementation. The Mini-Series busts the market wide open for Tier 1 and Tier 2 growers just now entering the market. With the "race to the bottom" for wholesale cannabis prices, Airstream clients benefit greatly from the lower installation, maintenance and production costs compared to conventional alternatives.

Many are realizing the current conventional methodology will become unsustainable when prices drop to $500 per pound. And for many growers, they are unprofitable at $1000 per pound. If growers don't go broke first they will be forced to sell, move outdoors (with all the risks and pressures) or invest in greenhouses. Those familiar with conventional greenhouses know how expensive they are and how ineffective they can be in dealing with airflow and fungal/pest protection. Airstream not only mitigates these disease and pest pressures, but dramatically reduces the entry cost. Even better, Airstream's greenhouses are considered temporary structures which in some cases land owners can avoid property taxes.

For clients growing in intemperate climates, Airstream offers automated heating and cooling/fogging solutions. The need for these add-ons vary depending upon region. For example, desert operations may require fogging at certain times of the year, particularly for young starts. Whereas mountain locations may require heating when temperatures drop precipitously low. While Airstream's greenhouses use natural light, many growers require supplemental lighting. Airstream meets this need with optional custom-designed solutions for each model.

With the addition of the *Mini-Series*, Airstream has expanded their customer base meeting the needs of nurserymen and boutique growers seeking affordable growing solutions. By offering smaller solutions based on their successful large-scale greenhouses, Airstream has dialed into the boutique organic and startup cannabis market by offering full turnkey solutions, including heating, cooling and lighting for as low as $75,000 USD installed.

Mini Series Typical Pricing

One 22 foot by 90 Foot Tunnel Greenhouse – High U.V. Light Transmission Film

Including:

- Internal Pressure Regulation
- 0-35,000 CFM air flow control
- High strength Greenhouse Film, 5 Year Life
- Intake air system with insect Thips control net
- 3 foot by 5foot auto controlled ventilation door
- Lighting fixture support frame, Light Deprivation Support frame
- Timer Controlled Double B&W Blackout Curtain System
- Rollout/Retractable Second (Doubled) Clear Poly Skin
- Light Deprivation Growing Area (20 feet by 60 feet)
- Link4 iGrow 1600 Greenhouse Controller w Temperature AND Humidity control
- Auto Back up Fan Generator
- 1-YearAirstream Component Warranty
- Freight

SUBTOTAL: $47,350.00

Installation Allowance – Location and Site Conditions not considered. $ 7,000.00

TOTAL: $54,350.00

COST PER SQAURE FOOT: < $28.00/Square Foot.

Optional Equipment

0-3 GPM Fogging Cooling System	$ 6,000.00
40 1,000 watt HPS Lamps with reflector and Ballasts	$ 18,000.00
Heater 440,000 btus Nat Gas with Temperature Control	$ 5,000.00

With Add-ons: $83,350.00

Square Foot Pricing; $42.00

AIRSTREAM INNOVATIONS GREENHOUSES BEAT THE ASIAN PSYLLID

By admin
September 22, 2015
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The Asian Citrus Psyllid and the HLB disease it carries continues its westward march leaving Florida and Georgia and the rest of the south with $3 billion in losses. California's $1 billion citrus industry is now under threat but there is hope for CA nurseries using new greenhouses by Airstream Innovations.

When the CDFA mandated only certified Psyllid/HLB-free trees may be sold or planted in California, this left citrus nurserymen needing someplace to raise future generations of citrus trees. On a chance encounter, they met David Chelf of Airstream Innovations who helped the nurserymen not only grow certified pest-free trees, but ended up boosting their plant growth and overall productivity over 30% and at a third the price of a conventional greenhouse.

Chelf appeared on the scene at just the right time in history. He perfected his technology over 10 years, receiving patents throughout the world. If you're not already familiar with the concept, it starts with air intake towers, set up at one end of the greenhouse. Around the entire perimeter a thick skirt is embedded into the ground. A very large, durable translucent cover is attached to the skirt and when the fans are turned on, the tunnel is inflated creating structures from ¼ acre up to 1.5+ acres. Once inflated, an automated vent door is added, and it's ready for planting. Installation runs about $5.50 per square foot and is typically completed within two-weeks upon start date without pouring a foundation or adding to the property tax.

California citrus nurserymen are not only receiving certifications, but more importantly they are reporting higher production rates including reduced water and pesticide use; seedling to budding 30 days sooner than expected; 30% more root and leaf growth; extended growing seasons and improved worker satisfaction.

Rob Brokaw of Brokaw Nursery of Avocado fame, expanded into the citrus industry with three one-acre+ units protecting 150,000 square feet. Sun Pacific, growers of the famous Cuties® brand, is installing two of Airstream's largest structures near Bakersfield totaling over three acres. Psyllid/HLB-free trees are also thriving at Willits & Newcomb and Mulholland Citrus in Riverside County and five one-half acre tunnels are going in for Young's Nursery in Palm Desert.

Meeting the needs of the CA citrus nurserymen is reaching one-million square feet in full production by year end. Chelf has proven his greenhouses can produce certified reliable safe product and has demonstrated productivity improvements over conventional alternatives. Airstream is working with growers interested in taking advantage of this technology.

SUN PACIFIC ORDERS LARGEST AIR-SUPPORTED STRUCTURE IN THE US

August 18, 2015

Simply Growing.

That's what Sun Pacific does best. Sun Pacific® has farmed California land since 1969. Keeping customers satisfied and providing high quality produce fresh from their fields everyday.

AUGUST 2015 – BAKERSFIELD, CALIFORNIA. Sun Pacific Nursery is one of California premier providers of citrus trees. In the Google map image above, the north end of the acreage just below (behind) the white-roofed structures, you will see two sets of twin wind-intake towers; their shadows pointing one o'clock. One of the two greenhouses tunnels are already up with the second installation pending (Google's last satellite photo is from March 2015).

Sun Pacific's tailor-made Airstream production systems are the largest air-supported, wind-assisted structures on earth spanning 136,ooo square feet or over 3 acres of crop. Sun Pacific's commitment to Airstream Greenhouses represents a maturing of their technology and should encourage even smaller growers to consider Airstream's less gigantic, yet industrial-scale production greenhouses.

Sun Pacific is using Airstream Greenhouses to ensure their brands like Cuties® thrive indefinitely generations by using Innovations to install the two largest air-supported, wind-assisted structures on earth.