



SYSTEM 420 HYBRID GREENHOUSES

White Paper

Maintaining Privacy & Security in a Cannabis Greenhouse

October 1, 2015

Background

Cannabis cultivation has largely been an indoor growing endeavor over the past 30 years. This approach was due to the illegal status of cannabis. Growing cannabis indoors does not make sense given the benefits of growing in a greenhouse. Vegetables or flowers are rarely grown indoors. Thus, why would cannabis be any different?

However, security and privacy is the focus of indoor growing. When cultivating indoors, neighbors, competitors, or the outside world does not see inside the grow operation. Without outside signage, the indoor cannabis grow remains a secret.

With a System 420™ hybrid greenhouse from [Nexus](#), the grower can receive both the security and privacy benefits of the indoor grow and the modern agricultural practices of the greenhouse. Cannabis crop efficiency, reduced operating costs, natural sunlight, and a healthier work atmosphere can be achieved without losing security and privacy.

As a greenhouse manufacturer, [Nexus](#) designs high quality, commercial greenhouses for the traditional horticulture and the emerging cannabis markets. The company partners with supplemental equipment providers, and manages the development of integrated greenhouses. This white paper outlines the various options for optimal cannabis greenhouse security and privacy.

Metal Side and End Walls

With traditional glass or polycarbonate greenhouse side and end walls, visibility from the outside world can easily occur. To improve this situation, hybrid cannabis greenhouses have insulated metal walls, which provide an additional layer of security and privacy. When an observer looks at the wall, they will see a metal structure without a standard greenhouse appearance. The structure will resemble an industrial warehouse, yet contain the benefits of a commercial cannabis greenhouse.



View of end wall with metal siding

These walls consist of a triple-layer combination of two corrugated metal sheets with a layer of insulation between the two metal layers. Inside metal includes a bright white reflective paint, which helps to reduce heat and reflect light back towards the cannabis crop. Outside metal can have a variety of colors. Beyond security, internal insulation provides extra energy consumption savings, which improves the overall financial structure for the grower in the competitive cannabis market. Metal walls are also an important part of the greenhouse light deprivation system that provides an opaque surface that light cannot penetrate. Greenhouse curtains need to be closed during dark photoperiod timeframes.

Polycarbonate Roofs

Polycarbonate roofs provide more privacy protection than glass or polyethylene coverings. In an urban environment, viewers from nearby multi-story buildings can often see through glass or polyethylene. Polycarbonate sheets, either in multi-wall or corrugated configurations, partially restrict the viewing capacity, and have become quite popular in recent years. This growth is due to the multi-wall sheets energy savings over glass and light diffusion capabilities that enhance the growing environment.



A look at corrugated polycarbonate roof coverings

Doors

Having strong and secure doors are an important part of cannabis greenhouse security. Steel walk doors are available for entry on the side or end walls along with standard door locks and the added features of key pads or key card locks, which provide additional security from unauthorized entry. Overhead doors provide large openings for loading docks, and can be functionally covered with metal for solid security. Automatic doors are useful in partitioning off conditioned areas inside the greenhouse. Selecting the best door option for a customized greenhouse can be vital to preventing theft and maintaining overall security.



Steel walk doors inside the greenhouse

Cameras

An additional tool for managing security is the use of cameras. Cameras can assist in preventing inside employee theft and outside burglaries as well as recording eavesdropping actions by competitors or curiosity seekers. Depending upon the geographical location of the cannabis grow operation, cameras may be necessary for state governmental compliance. For example, in the State of Washington, cameras have film resolution requirements, must be installed in every facility room, and run on a 24x7 basis.

Cameras provide extra peace-of-mind to cannabis facility owners and managers. Video viewing capability exists through online remote access including PCs and smartphones. In addition, cameras are essential to a comprehensive security effort through integration with alarm and law enforcement reporting systems.

Fences

Even though the greenhouse is a secure facility, many growers have a secondary fence to keep any unwelcome visitors off the property. This effort provides a double layer of security to ensure that the cannabis crops remain protected from any intruders. Plants or trees can be placed near fences to obstruct views. Growers may select guardian plants, which attract specific insects to reduce the number of those insects moving towards the greenhouse cannabis crops as part of an integrated pest management system.

About Nexus

Nexus Corporation has served the greenhouse industry as a top US manufacturer since 1967. With a corporate office and production facility in Northglenn, CO along with an advanced manufacturing plant in Pana, IL, the company brings innovative designs, high quality products, and exceptional customer service to its [System 420™](#) hybrid greenhouse systems.

Nexus has a team of engineers (licensed in 49 states), sales, project management, customer service, and operations professionals dedicated to managing a greenhouse development project from start to finish. The team has expertise regarding the customized design components, efficiency features, and cost management strategies necessary to maximize crop yields and return-on-investment.

For more information on greenhouses from Nexus Corporation, click here.

Sources

www.nexuscann.com

www.nexuscorp.com

www.nexuscann.com/files/Components%20of%20a%20Marijuana%20Greenhouse.pdf

www.supercircuits.com/resources/learn/buying-guides/video-security-systems-for-marijuana-growers

www.uvm.edu/~entlab/Greenhouse%20IPM/Workshops/2014/PlantMedIPMSystemsOverviewFinalNov13.pdf

