

# What's Happening With Structures?



For most growers, the greenhouse structure is the largest investment in their business, so it is critical to select the right greenhouse type for their respective needs. Read on to find out what is being offered from today's greenhouse manufacturers.

**By Jasmina Radjevic**

Every year, *GPN* corresponds with greenhouse manufacturers to find out what new trends are happening in greenhouse structures. Weather and climate, energy costs and the world economy all help determine what growers purchase from structure manufacturers. Although trends have not changed drastically in the past year, there is still a great deal of structure information that growers and manufacturers are talking about.

### Offering A Roof Menu

Several years ago, open roofs were introduced to the industry and have only grown in popularity. Now there is more variety in the applications of these roofs. "The open roof is by far the biggest movement in our industry," said Jeff Warschauer, vice president of sales, Nexus Corporation. Now that open roofs have been around for some time, manufacturers are beginning to experiment with them. There are many different

styles of open-roof greenhouses for different applications, according to Warschauer. "And that certainly eliminated the need, in most cases, for cooling fans," he said. Variations of the open-roof



*Top: Natural, open-roof ventilation is an energy-efficient and practical system for greenhouse production. (Photo: Cravo Equipment) Bottom: Half-open roofs offer some of the same benefits as 100-percent open-roof greenhouses. (Photo: Nexus Corp.)*

greenhouse are also available through some manufacturers. While many companies offer only the 100-percent open roof, there has recently been some competition among companies getting into half-open and quarter-open roofs, said Warschauer. "All those are different price points, and so it gives [growers] a menu in the world of open roofs — an opportunity to look at different options."

"When you have a 100-percent open-roof house, you have a lot of drive mechanisms and a lot of steel in the roof to operate all those opening roofs," explained Warschauer. "So if you do maybe a half-open roof, what we call an atrium, then you're opening 50 percent of your roof." He said he has seen almost the same humidities and temperatures in half-open roofs as full-open roofs. Using half-open roofs eliminates half of the gutters, which, in turn, reduces the number of shadows, and vent-drive mechanisms, said Warschauer. This all relates to cost savings. Most growers know that the price to

## structures

run an efficient greenhouse is not shrinking, especially with high energy costs, and it is imperative to cut costs where they can.

### Dealing With Climate

Everyone in the growing business is well aware of weather's effects on greenhouse production. Southern growers may be looking for something radically different than Northern growers, according to Chuck Sierke, sales manager for Cravo Equipment. "It's not just north and south. There are so many microclimates in the country," he added. So every greenhouse project needs to be looked at carefully and given special attention.

This winter's freezing temperatures in California, New Mexico and Arizona, states that

traditionally have warmer climates, have caused problems for growers. According to Sierke, most of the greenhouse growers in these areas have been able to get by without frost protection. "With the recent ice and snow storms that have been going on through the southwestern part of the country, a lot of growers lost their inventory," explained Sierke.

Sierke shared a story about one grower in Arizona who invested in a 300x216-ft. flat-roof house a few years ago and added several heaters. What seemed like a somewhat large investment at the time actually saved his business. "Everyone else was basically out of business, and he saved \$500,000 worth of product he had in inventory," said Sierke.

Another climate-related solution manufacturers offer is protection against hurricanes. Many growers

in Florida and nearby areas are looking at retractable-roof greenhouses because they allow wind to blow through the structure, said Sierke. According to Cravo, Kraft Gardens, Ft. Pierce, Fla., and Michael's Nursery, Boynton Beach, Fla., retracted their greenhouse roofs and walls before hurricanes hit, and neither operation sustained damage to the roof covering or drive system. Consequently, they were able to protect their crops from sunburn by closing the roofs the following day.

### Working With Nature

High energy costs absolutely have a great effect on the green industry as a whole. As for growers, dealing with these costs affects the bottom line the more the investment goes up.



**Left:** For many growers, a retractable roof offers protection for their crops in times of extreme weather conditions. (Photo: Cravo Equipment) **Right:** Greenhouse manufacturers are using different types of coverings to offer options for various applications and climatic conditions. (Photo: Nexus Corp.)

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"The more energy efficient you try to make your structure, the more costs you end up putting into your capital costs," said Bill Vietas, commercial division manager, Rough Brothers.

This is just something all growers must take into consideration when putting up a new greenhouse, though, because in the long run, growers can save a good amount of money off the electric bill, said Sierke.

Warschauer agreed: "We are in the industry of beauty and natural resources, so we should look at it and question, 'What could we do that would be more ecological and more energy friendly?'" He sees a trend in sustainability in the future. With awareness of sustainability increasing, manufacturers are trying to develop more ways for growers to be more sustainable through their businesses. **GPN**

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