

GROWERTALKS

Features

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A Time to Grow

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The green industry has seen tremendous growth in recent years. From hydroponic lettuce to blackout systems for cannabis, the possibilities for greenhouse growing are endless and the demand for greenhouse-grown products has exploded. This is great news for greenhouse growers and for manufacturers of greenhouse structures alike.

Chances are, your operation has been feeling the effects of this market success in the past few years and the time to plan for expansion has come. Taking on the task of expanding your business and adding new greenhouse structures can be a daunting task.

Here are some pointers from a few experts in the industry on steps to take to prepare for greenhouse expansion.

Establish your “what” and “when”

How much expansion is enough expansion? Analyze your productivity within your current greenhouse space and determine what your needs are for your specific growing industry. Blueprints and/or aerial images of your operation will aid in planning for structure size and space.

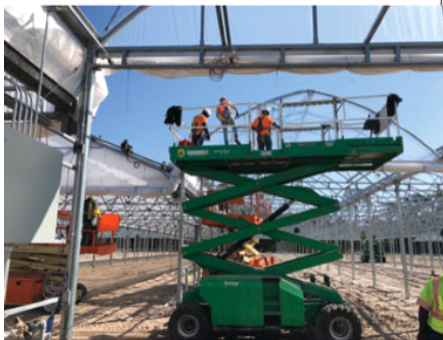
(For additional resources to aid in this process, turn to the [National Greenhouse Manufacturers Association \[NGMA\]](#) for direct connections to reputable and experienced organizations and individuals.)

Check with local authorities

Once the expansion plans have been established, it's time to review code requirements that may affect your site prep, greenhouse location on the property and type of structure that will be required for your application.

What permits are required? Are there setbacks from property lines? What wind and snow loads must be met? Are engineered drawings required? Is water runoff and a water retention area going to be required? These must all be answered before taking the next steps.

Whether or not your existing utilities can accommodate your expansion plans also needs to be addressed. Additional electrical supply and water supply may be necessary to operate the larger facility. For considerably sized expansions, the full process will entail site excavation, site preparation, coordination with your utility company, hiring a contractor to build and an electrician to wire your structure.



Determine the proper size

Calculating the size of the new greenhouses is a crucial step in this expansion process. To maximize efficiency, plan to allow for enough room for anticipated growth down the road.

Pinning down an exact number of square feet of the greenhouse will first require evaluation of your current operating space. The first step is to determine the amount of square feet of greenhouse space you'll need—not only for current demand, but anticipating future growth as well.

Plan for growth. Not only is overall length by width important, but also consider height, width of bays and how the structure will fit into the space that you have available to work with.

You'll also need to determine if your existing office space, warehouse space, germination rooms, seeding facilities, etc. can accommodate the additional growing space. Anticipate the space in your greenhouse and how it will be utilized. This can be a commonly overlooked problem.

Pictured top: Deciding between mechanical or natural ventilation is an important feature of your structure. Shown here is the Grand Peak Ridge Vent greenhouse from Atlas.

Center: Knowing that unexpected delays may occur at any point during the project, whether it's from production setbacks or unforeseen weather conditions, will help you plan your project schedule.

Bottom: Be sure there's an open line of communication between the greenhouse supplier, the installer and yourself.

Type of structure—Don't limit yourself

You may be content with the type of structure that you currently have and simply want to add more of the same. Before you make that decision, however, there are some things you should ask yourself: Are there crops not currently being grown that you may consider in the future for which your current greenhouses aren't suitable? Are there upgrades in equipment that may require a different type of structure, such as automation equipment, irrigation systems, bench systems, lighting, retractable energy curtains, etc.?

- **Roof design:** This is one aspect of a structure's features that's important to your geographic region and limitations from weather. The Quonset, A-Frame and Saw Tooth are a few popular roof designs. Your geographical location may dictate that one design is more suitable for your area or your specific application. Your ventilation options will also help determine the roof design that fits your needs.

- **Glazing/covering:** Will your greenhouse be best suited as a polycarbonate covered structure, acrylic, glass or poly-film? Depending on what you're growing, you may decide to match your existing structures and continue with polycarbonate glazing to maintain a thorough level of protection and environmental controls.

- **Ventilation:** Mechanical ventilation or natural ventilation? This is an important feature of your structure with consideration to temperate range that your greenhouse will experience through the year in conjunction with the sensitivity of your crop. Now is the time to also consider changes in ventilation and heating methods.

For example, if you're currently using mechanical ventilation and are considering natural ventilation, you may want to look for a structure with a taller sidewall height and one that will accommodate a ridge vent. Perhaps you're ready to move to a more efficient heating system and are planning to use hydronic floor heat or under-bench heat. Make sure to allow space for the boiler and piping needed. A side room may be a good option for housing this type of equipment.

Establish a schedule

Consider the timeframe of the entire project. This will be an important aspect of the process of seeing this project through to fruition. Allow ample time for each step of the process. Unexpected delays may occur at any point during the project, whether it be from production setbacks or unforeseen weather conditions. Aim for expansion completion in time for your busy season.

Purchasing your greenhouse

Now you're ready to narrow your selections and decide which greenhouse manufacturer and installer you'll be working with. It's time to finalize the purchase and plans of your greenhouse. Review the drawings and details with your installer and be sure there's an open line of communication between the greenhouse supplier, the installer and yourself. Good communication is the key to a successful project.

Protecting your investment

Your new greenhouse space is an additional asset to the success of your business. Just as with your initial set-up, this expansion will require the proper protocol in place for insurance. Check with your insurance provider to verify their demands for adequate and proper coverage. This can range from overhead sprinklers for fire protection, specifications on flame retardant covering and proper documentation of the wind/snow load certificates from your greenhouse supplier.

As with any construction project, there'll be many obstacles that occur throughout the process. Utilizing all available resources through each step of planning will help to avoid common oversights and avoidable pitfalls. **GT**

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