

The decision to move toward sustainability is an important first step in improving your greenhouse.

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Growers look at operating a sustainable greenhouse

THERE HAS BEEN no shortage of discussion about sustainability in the United States. Before you decide to change into a sustainable greenhouse, you need to know what it means to be a sustainable greenhouse. "Sustainable production" is defined as a program that aims to reduce environmental degradation, maintain agricultural productivity, promote economic viability, conserve resources and energy and maintain stable communities and quality of life.

Converting a greenhouse operation from conventional to sustainable doesn't necessarily mean that you need to become certified by companies like VeriFlora or MPS. Becoming sustainable doesn't happen overnight; it is a process.

Reduce environmental degradation

Everything we do has some impact on the environment. A greenhouse operation can have

many potential effects on the environment. Greenhouse crops require a large amount of inputs including fertilizers and chemicals. When chemicals are used in non-sustainable practices, they can lead to nonpoint source pollution.

The U.S. EPA defines nonpoint source pollution as: "Pollution caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters and even our underground sources of drinking water."

The major sources of waste in the greenhouse industry are plastic containers, packaging for shipping and polyethylene film used to cover greenhouses. Carbon dioxide emissions from heating greenhouses and shipping plants also contribute to environmental degradation. These are the environmental costs of doing business. It is unreasonable to think that growers can continue doing business if they stop using fertilizers, plastics and fossil fuels. However, if you're looking to reduce their use, then you're beginning to make the decision to operate a sustainable greenhouse.

Maintain productivity and economic viability

Our industry provides consumers with an aesthetic product. It is doubtful that the public is going to lower its expectations for plants. You'll need to assess the changes you make in your operation to become sustainable and evaluate how they affect the quality of your plants. One of the most important questions you need to ask is if becoming sustainable will also allow you to maintain or increase productivity and economic viability.

Sustainability may or may not be expensive to implement. The question becomes, can you afford to implement these practices or can you afford not to? Implementing sustainable



With the rising price of oil, the cost of plastic for containers and poly film is taking a bigger chunk out of a greenhouse's bottom line.

production practices may actually save you money.

As with any production shift, becoming a sustainable greenhouse has the potential of creating a niche market. Lifestyles of Health and Sustainability reports (www.lohas.com) that there is a growing concern among consumers about where the products they buy come from and how they were produced. Consumers may be more willing to pay a premium price or shop exclusively at one business if they know that the products are grown locally or in a sustainable way.

Resource and energy conservation

Talk to anyone involved in the greenhouse industry and within the first five minutes of the conversation the cost of energy will likely come up. According to the Energy Information

Administration, in May 2000 the price of a barrel of crude oil was \$26.93. In July 2008, the price of oil rose to more than \$140 a barrel. During that same time frame natural gas more than doubled from \$5.78 per 1,000 cubic feet to \$11.76 per 1,000 cubic feet, as did the price of propane, increasing from \$1.01 per gallon to \$2.60 per gallon. The rising cost of gasoline and diesel has also affected growers' bottom lines. Reducing fuel consumption is a sustainable practice that will save money.

Resource conservation does not begin and end with petroleum-based products. Water may not cost as much as petroleum, but it can be scarcer. During the last few years, most growers in the Southeast became well aware of the effect severe drought can have on their businesses. Even if growers in this region were able to irrigate their

crops and ship them to retailers, they probably found it difficult to find customers who would purchase those plants due to water restrictions imposed by municipalities.

Maintain quality of life

One of the major reasons why growers have already taken steps



Simple practices, including recycling containers and implementing recycling programs, can help a greenhouse operation become more sustainable.

Questions can help achieve the sustainable answer

When discussing sustainable production, it's important to weigh all of your options. Your operation can be certified as a sustainable greenhouse by a third-party organization. You can also evaluate your operation yourself and determine what practices to improve. You might be surprised to learn how sustainable your business already is.

If you are contemplating whether to make the effort to make your greenhouse sustainable, ask yourself these questions:

- Do you want to reduce the impact your operation has on the environment and reduce the amount of fertilizers and pesticides used and the amount of waste generated?
- Do you want to maintain or increase the productivity and viability of your business?
- Do you want to conserve natural resources by using less oil, propane, natural gas, electricity, plastic, paper and water?
- Do you want to ensure that the community you live and work in is a safe and enjoyable environment?
- Do you want your business to thrive and continue to grow in the future?

If you answer yes to just one of these questions, then you've already made the decision to make your greenhouse a sustainable operation.

toward sustainability is because it is the right thing to do. Many owners reside on the same property as their greenhouse operations. People want to live and work in an environment that is clean and safe. If growers can help contribute to maintaining a clean and safe environment, they will help improve their business' image.

Being sustainable is much more than being environmentally friendly. It can help a greenhouse business survive for future growing seasons.

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