



## Controlled Carbon Dioxide Atmosphere for Greenhouses



*Maintaining an optimal concentration of carbon dioxide benefits greenhouse productivity yields*

### **Cut Operating Costs, Increase Crop Production**

On average, there is between 400 and 420 ppm of carbon dioxide in the air around us. Inside a greenhouse where plants are consuming CO<sub>2</sub> for photosynthesis, the level may be lower than the optimal level for your crop. Linde's CO<sub>2</sub> systems help elevate CO<sub>2</sub> levels in a controlled, monitored fashion to ensure that you achieve excellent plant growth, improved yield, stronger stems and a reduction in overall operating costs.

### **CO<sub>2</sub> Improves Plant Growth**

Experience and industry results have shown that the amount of carbon dioxide a plant requires to grow may vary from plant to plant, but tests show that most plants will stop growing when the CO<sub>2</sub> level decreases below 150 ppm. Due to plant density and CO<sub>2</sub> consumption, many greenhouses experience sub-ambient levels of CO<sub>2</sub> leading to plant growth slow-down. While returning CO<sub>2</sub> concentrations to ambient levels will mitigate slow plant growth, increasing CO<sub>2</sub> levels to above 800 ppm can significantly plant growth, plant health and overall productivity.

### **Features of the Linde System**

- Directly inject liquid carbon dioxide
- Eliminate the need for vaporization, in most cases
- Uniform distribution throughout the greenhouse.
- Easily controlled levels of the CO<sub>2</sub> in the greenhouse atmosphere.
- Flexibility to accommodate a variety of plantings
- Installation without disruption to the growing schedule
- Practical know-how from the leading CO<sub>2</sub> supplier in North America

**Benefits of a  
Controlled CO<sub>2</sub> System**

- No major capital investment
- Maintains optimum CO<sub>2</sub> concentration for plant growth
- Produces more blossoms and fruit per plant
- Improves yield and revenue
- Increases growth rate
- Reduces need for winter ventilation
- Reduces operating expenses

**A Wealth of Experience  
and Support**

Years of research has shown that in most cases the rate of plant growth is directly related to the CO<sub>2</sub> concentration when all other growing conditions are identical. When you choose Linde, you're selecting more than the largest supplier of industrial gases in North and South America. You're also selecting a support team that includes:

- Food scientists and engineers with extensive CO<sub>2</sub> knowledge.
- An array of services including reliable gas delivery, site layout and survey, storage vessel and pipe installation all supported by Linde's Total System Approach process.

It's everything you need to improve the quality and yield of your greenhouse products.

**Contact Your Linde  
Representative Today**

For more information about carbon dioxide control and improved greenhouse operations contact your Linde representative or call us at **1-844-44LINDE**, or visit our website at [www.lindefood.com](http://www.lindefood.com).

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