

## **Greenhouse Gardening Humidity Tips**

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### **Greenhouse Garden Humidity Advice**

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Humidity in a [greenhouse](#) is very difficult to control. In fact it will be your biggest challenge in growing in your greenhouse. The levels of humidity vary with the change in air temperature and the moisture that plants can give off too. Even with all the automation of the systems today you still need a working knowledge of humidity and how it affects the plants to grow things effectively.

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#### **What is Green House Humidity?**

Humidity is a term used for how much water vapor is contained in the air. It is mostly talked about as relative humidity, which is the ratio of water vapor to the air compared to the saturation point. An example of this is that at 30% relative humidity there is 30% of the water vapor as the air can actually hold.

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#### **What Part Humidity Plays in the Greenhouse Growing Environment**

The leaves adjust to humidity by opening and closing their stomata. The stomata open when humidity goes up and closes if humidity gets too low. When the stomata closes it causes the rate of CO<sub>2</sub> exchange to decrease and it can upset the normal photosynthesis the plants do. This is why it is so important to not let the humidity go too low in the greenhouse.

#### Plant Growth

Many of the plants cultivated in a greenhouse environment thrive when the relative humidity is higher. But several problems can occur when the humidity is too high for the plants. They can have trouble absorbing the minerals they need, the plants roots do not grow as large of root systems and diseases can happen to mention just a few of the problems. Remember, all plants do not like the exact same humidity levels. There are some problems that can also occur if the humidity gets too low. Wilting, small leaves and leaf curl are just a few of the problems.

#### Inner Humidity Levels



In a greenhouse you want good humidity but not so high that it goes to the dew point. This is too high. Humidity this high promotes diseases happening to the plants. Even with careful control and monitoring sometimes the dew point can still be reached. So it is quite tricky to get the right humidity levels. This is where the ventilation system comes in to bring in drier air from the outside and swap it out for the moister air in the greenhouse. Also the heating of the air plays an important role in lowering the relative humidity too.

Now if humidity levels drop too low then measures need to be taken to raise them. This can be done through foggers, sprinklers or misters. Venting should be done on some level when humidifying the greenhouse to avoid too high of humidity being reached.

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**As you can see it is a bit of work to maintain the correct humidity in the greenhouse. However, when you succeed your plants thrive!**

This increases the size and health of your harvest. So learn all you can about controlling and maintaining the humidity level in your greenhouse for the sake of your plants.

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Recommended Websites:

1. [EPA Climate Change for Kids Gardening Club](http://epa.gov/climatechange/kids/links.html)- <http://epa.gov/climatechange/kids/links.html>
  2. [Complete Building Plans to Build A 32' x 10' x 10' Greenhouse](http://www.floridagardener.com/greenhouse/greenhouseillustration1.htm)-  
<http://www.floridagardener.com/greenhouse/greenhouseillustration1.htm>
  3. [The Hobby Greenhouse Building Guide from Oklahoma Cooperative Extension Fact Sheets](http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-2271/HLA-6705web.pdf)-  
<http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-2271/HLA-6705web.pdf>
  4. [Greenhouse Tomato Handbook](http://msucares.com/pubs/publications/p1828.pdf)- <http://msucares.com/pubs/publications/p1828.pdf>
  5. [Controlling the Environment in Greenhouses Used for Tomato Production](http://www.utextension.utk.edu/publications/wfiles/W017.pdf)-  
<http://www.utextension.utk.edu/publications/wfiles/W017.pdf>
  6. [Organic Greenhouse Tomato Production](http://attra.ncat.org/attra-pub/ghtomato.html)- <http://attra.ncat.org/attra-pub/ghtomato.html>
  7. [Dealing with the High Cost of Energy for Greenhouse Operations](http://pubs.ext.vt.edu/430/430-101/430-101.html)- <http://pubs.ext.vt.edu/430/430-101/430-101.html>
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