

DIY Greenhouse Cabinet for Happy Houseplants

By Carl Johnson, UConn Home & Garden Education Center

Plant enthusiasts have been creating microclimates for their most treasured specimens since the mid 1800’s. This practice was pioneered by Dr. Nathaniel Ward who published a book titled “On the Growth of Plants in Closely Glazed cases” in 1836. What Ward had discovered was that by creating a microclimate for his delicate ferns, he could protect them from the fluctuating temperatures and polluted air that permeated his apartment in 18th century London. Connecticut’s air quality is much better than London’s was at the end of the industrial revolution, but the fact remains that temperatures, and humidity especially, fluctuate greatly in any New England home throughout the seasons.

As a collector of warm climate plants, I have found that my collection flourishes with the increased daylength, overall temperatures, and increased humidity of the summer months. Even though they are mostly kept inside the whole year, the outdoor environment does have an effect on the indoors. My house tends to be a bit colder and drier throughout the fall and winter, not as cold or dry as outside but it is still a marked change from the summertime. A change that some of my more sensitive plants notice and reflect in the form of crispy leaf edges and stunted growth. This is a change that many indoor gardeners notice this time of year, especially when they begin to heat their homes as this usually results in a dyer climate. A solution that can house larger plants than most terrariums but still provide an opportunity to control your plants growing environment is a greenhouse cabinet. Google DIY plant cabinet for lots of tips on making one.

Almost any cabinet can be made into a greenhouse cabinet with a few relatively easy and cheap modifications. Some cabinets lend themselves to this purpose more readily than others. For my cabinet I started with the “Fabrikor” cabinet from Ikea. This model is a good option because it is somewhat weather and humidity proof (painted metal and glass construction). It also has clear glass panels on all sides so I can still enjoy my plants while they are inside. Any cabinet with some or all of these features would make a fine choice.

Once you’ve selected or built your cabinet, you can begin to outfit it to suit your plants’ needs. Some people choose to place their cabinet near a south facing window to give it a source of natural light. Another option is to install an artificial light source inside the cabinet. The same lights you might use for starting seedlings are an effective option, but the more popular option is to choose from the many different LED grow lights that are now available. LED lights now come in cleverly designed strips that can be easily attached to the ceiling of the cabinet.

Whether your cabinet is completely or partially sealed, having any kind of enclosure around a group of plants will lead to higher humidity levels. This can be a vast improvement over the microclimate found on windowsills and in living rooms where plants might normally be placed. Some cabinet growers add small humidifiers to their cabinet in order to keep humidity levels even higher. Tropical plants love this and reward growers with impressive flushes of new foliage even in the darkest winter months.

Humidity without airflow leads to stagnant water that is often followed by disease. A final component is added to the cabinet to combat this. Small fans desktop fans are a key component and can be easily added to a cabinet that’s already been outfitted with lights. These fans should be strategically placed in a way that is similar to circulation fans in a greenhouse. Keeping the airflow moving throughout the cabinet will help strengthen plants and provide more consistent environmental conditions throughout the grow space.

The brightness and active growth that a greenhouse cabinet brings is sure to brighten up any home throughout the winter. The ability to grow plants to their fullest potential despite the surrounding environment is sure to bring joy and fascination, brightening up the dark winter days and nights much like the Wardian case did for 18th century Londoners. I encourage anyone who is interested in tropical houseplants to give it a try and turn that dusty old cabinet into a thriving habitat and centerpiece in any room.

For questions about your houseplants and their care or any other home or garden topics, feel free to contact us, toll-free, at the UConn Home & Garden Education Center at (877) 486-6271, visit our website at [www.ladybug.uconn.edu](http://www.ladybug.uconn.edu) or contact your local Cooperative Extension center.

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