## **Light Stands**

African Violets became the most popular indoor house plant because they do well in windows. They like a lot of light but not a lot of heat so the best windows are eastern windows. North and south facing windows are good to but you may need a sheer in the afternoon. Western facing windows generally just get too warm in the afternoon to be good for violets. Rule of thumb for window sill grown violets is the plants should not be further than 12" from the light source.

African violets can be grown well in natural light but the best way to grow the beautiful show type plants is to use artificial light. There are professionally made light stands that can be purchased. IGS makes stands specifically for African Violets.

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-Professional light stands have a lot in their favor. The light fixtures have a wider

separation between the bulbs so that the distribution of light is more even. The light bulbs used are high quality wide spectrum bulbs. The displays come with removable permanest trays. They do have plastic covers that can be purchased to cover the whole stand. This adds humidity in areas that are very low in humidity. The only drawback. They are very expensive!!

Many light stands are home made. If you are going to make your own stand rule of thumb is that the shelves for standards should be between 10" to 12" from the top of the plant to the light source. For minis the separation should be 8" to 10". To keep the light consistent fixtures should be on a timer. The best type of bulbs are florescent. Fluorescents come in two basic sizes T12 and T8 bulbs. T12 bulbs are larger around and not as energy efficient. They are eventually going to be discontinued. However, they are still around and are very affordable. If you have or purchase a T12 fixture it needs to be on for 10-12 hours a day. T8 fixtures are soon going to be the standard. They are smaller around and are more energy efficient. They are also a lot brighter. When you first start out they should only be on for about 8 hours a day. As they age, they put out less light and you can increase the time to 10 hours a day. Also, when replacing bulbs never replace both at the same time. As with any new thing you expose your plants to listen to the plants. If the centers are too tight decrease the time your lights are on. If the plants are reaching and the centers are open increase the time your lights are on.

Probably the most common homemade set up is the wire stand with 48" florescent fixtures. Lowes has them for around \$75.00. I like a T8 fixture that Lowes sells, where there is a slight separated for the bulbs, and it is about \$18.00, utiltech 0420867. The fixtures come with metal hangers or you can use twist ties. You can add cracked ice covers for florescent drop ceiling lighting on top of the wire shelves for more stability. Front covers can also be added, using ½ plywood to cut to fit the front of the stand. This cuts the glare of the florescent lights.

Shirley bought her stands at yard sales and consignment shops. Cost \$29 - \$100.Items needed. Under counter, linkable, T-8 lights either 13" or 23". Purchased at Walmart, Cost \$10 for 13" and around \$15 for 12". Timers: Bought simple ones at Walmart - Cost \$7. You can buy timers with two plugs, but they are extremely hard to program. Some have an off/on button, so you could turn them on yourself and not buy a timer. Extension Cords. 6' - Cost \$6. I use this to connect more than one timer. Used plastic ties to hold lights on stands. One package of ties cost around \$2, and may do 2-3 stands with 4 shelves each.

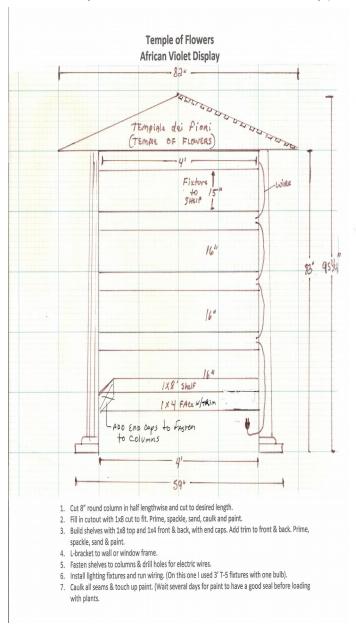
Bobbi put together stands made from plastic shelf units at big box hardware stores. The shelves are usually too close, so she buys some kind of sturdy PVC and uses as poles between shelves. They often do not fit the holes, so the pvc has to just rest on the top of each shelf, with the pole that came with the unit inside of it. She uses a length of metal pipe (conduit) or something sturdy (1 x 2, or thick plant stake) to run down the center of the pvc to keep it from going off the edge of the shelf.

For the slatted shelf type

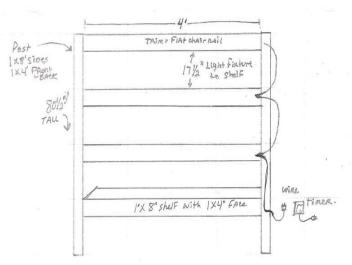
- 1) The Lights (4ft) are easy to hang from these shelves because there are many gaps in the shelf.
- 2) They hang out a bit from the unit, so you can put things on the side that do not need as much light...Leaf cuttings?
- 3) However, the gaps allow for uneven footing for smaller reservoirs, also dirt, etc. to fall thru to the next shelf. So she puts something down to stop that. Here she had found foam board cheap at \$ tree. It is not quite large enough, but close.

For her solid shelf one:

- a) Not as many options to hang from, so used soldering iron to make holes in the plastic.
- b) This shelf is only 3+ feet wide, so used some old 3 ft kitchen fixtures from our remodel.:)
- c) Can use clip on LED (Lowes) #352725 or something similar (not sure this would be enough for most plants, maybe leaves?)



## **Wooden African Violet Display Shelves**



- 1. Assemble columns 1x4 front & back, 1x8 sides. Prime, sand caulk & paint.
- 2. Assemble shelves 1x8 top, 1x4 front & back, trim on front and back faces. Prime, sand, caulk &
- 3. Install 4' florescent fixtures into shelves. Do not install two T-8 bulbs yet.
- 4. Locate where shelves go on columns, drill holes for electric wires.
- 5. Fasten shelves to columns using ends of light fixture flange.
- 6. L-bracket unit to wall leaving 4"space for plant leaves to hang over.
- 7. Caulk all seams from shelves to columns. Let dry.
- 8. Finish all trim, caulk & paint.
- 9. Run electric wires to each fixture and to plug. Install bulbs, set up on timer.

Note: New bulbs have a higher output, adjust your timer accordingly.

Check out the internet as well you are only limited by your imagination.