

# 2m DIY Shade/ trellis Specification

## Background and why

I initially constructed a bamboo trellis to grow tomatoes in this very space. \* This was done with bamboo laying around in the sun for ages.

At first it worked well, but then I noticed the weathered bamboo was breaking from the weight of the tomatoes, being thin they didn't lend well to being secured well in the soil, and the evening Western sunset beams were burning the fruit on the tomatoes.

So after a season of observation, I decided to upgrade. The total cost of a 2m shade / trellis structure can be around R 1000 - R 1200 if you have the necessary tools. But think outside of the box if you don't or call on a neighbour or friend for help. Note this is at June 2023.

Repurpose if you can to save money. This may mean your structure would need more maintenance in the long run or last a shorter time though.

If you purchase treated wood, opt for heat treated poles. Enquire from the store to make sure what the wood was treated with. Non treated wood may last a shorter time, but it will be safer if you don't have options here.



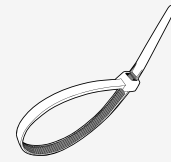
# Structure

- 1 6 x gum poles @2,5 m long
- 2 1 x 12mm x 1m threaded rod (cut to size at home)
- 3 12mm nuts to fasten gum poles with threaded rod
- 4 min 4 x 25mm wooden rods for top
- 5 6 wooden rods for trellis. add more for smaller gaps
- 6 Shade netting



# Tools

- Wooden drill bit (15 - 20cm) to drill through a gum pole
- Drill
- Screw driver
- 7 cm nails to nail wooden rods to gum poles
- Hammer
- 15 - 20cm cable ties to tie shade net to wooden rods on top
- Small angle grinder to cut threaded rods
- Wood saw to cut poles/ wood
- Measuring tape
- Shovel and spit
- Ladder
- Pliers
- Scissors to cut cable tie ends



Wood drill bit and portion of threaded rod.  
Use a drill bit that is the size of your threaded rod.

# Steps

- Procure everything you need
- Measure and lay out your gum poles
- Measure and cut steel rod pieces. If you don't have an angle grinder, buy them cut from the hardware store
- At this point do a check to see whether your shade netting and poles roughly align
- Measure and drill holes in the gum poles. 4 will have one hole and 2 that will run on top will have holes on either side to secure



- Examples of where you will drill holes. The top pole will have a hole on each side.

## Steps continued

- Dig 0.5 m holes for the poles
- place the 4 that are your vertical poles in the holes and tightly pack back soil
- Attach the horizontal top 2 poles with the steel rod and nuts on either side. Note you can have one side overlap further.



Visual of threaded rods with nuts fastened to secure gum poles

## Steps continued



- Nail a few wooden rods across the top of your structure to provide more structural integrity for the shade netting. Instead of cutting overlapping pieces, tie them together with cable ties. ★
- Run the shade net piece over and start attaching with cable ties. Adjust as needed as you go
- Cut ends of cable ties with scissors
- Treat wood with your sealant of choice (if you desire). Check for suitability in the vegetable garden.

# Helpful notes

- Most hardware stores will supply everything you need, including shade netting by the meter.
- For this structure I covered the top and West facing side portion of the structure (to provide needed shade in the hot summer afternoons).
- A 6 meter piece of shade net will fit on top and over, and give you leeway to fasten the bottom to an additional gum pole or some steel pins that are hit into the ground. You can roll this side up in winter and leave it on top of your outer structure.
- Try position gum poles in a way that shade netting fits over the outside edges. e.g. if your shade netting is 1.8m wide, position the gum poles 1.5/1.6m apart.
- Roughly check sizes as you go.
- If you don't have an angle grinder, pay slightly more for pre-cut threaded rod and nut sets. Just make sure they are long enough to fit through 2 gum poles with extra space for the nuts to tighten.
- For my net at the bottom end, I used an additional gum pole to secure the net to it (weight). A bent steel rod was used to secure it in place in ground. This bit is up to you on how you want to secure your shade net



There we go! I hope you find this guide helpful.

All the best!

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