BUILDING SEQUENCE OF A SHADE HOUSE

The basis

1. Level an area of at least 6.5 m x 4.5 m; kill any nutgrass or other penetrating grasses and clear the area of sharp points, rocks or sticks; use a cover of sand if need be.
2. Grind the edges off the corners of the star-pickets so they don't cut into the poly-pipe.
3. Drive the star-pickets in, four on either side (use a batten as measure) at 2.01 m intervals in an exact 6.05m x 4m rectangle; check that both diagonals are 7.25 m.
4. Leave exactly 1m of each picket above ground and make sure they are vertical. If you hit a rock, grind the picket off to the right size.

The arches and battens

5. Cut four lengths of poly-pipe to 7.15 m; mark the centres at the middle (3.575 m).
6. Place the poly-pipes over the star-pickets to form four arches.
7. Pre-drill the battens making sure the holes line up exactly with the star pickets.
8. Place one batten over the marked centres of the arches and secure with screws, photo 7. We use several lengths of stretch cord to hold the batten in place. Do the end arches first, then the middle ones.
9. Place two battens – one on each side at 87.5 cm distance – and secure with screws; again using the stretch cords to hold them in place.
10. Place the next battens at 90 cm distance, three on either side, the last at the bottom of the arch.

The uprights

11. Place wooden uprights under the centre of the front and back arches; use the metal strapping to fasten them to the poly pipe, photo 8, and use brackets to attach to the threshold or timber on the floor.
12. Place another upright as the second doorframe; the distance depends on the width of the door.
13. Cut and place a piece of timber across the top to finish the door frame, using two brackets.

The shade cloth

14. Cut several (6 or 8) 3-5 cm lengths of poly-pipe and cut them lengthwise once to use as clamps to hold the cloth onto the pipe, or use other clamps that fit around a 5 cm poly-pipe.
15. Cut two lengths of 6.4 m shade cloth, (about 17 cm to wrap around each poly-pipe).
16. Use the clamps to hold the first length of cloth onto the end arches; then attach the cloth temporarily with some tie wires to the centre batten and with a few staples to the end arches.
17. Similarly place the second length. Each should cover one half of the shade house from the centre to the ground. Make sure there is a 5 cm overlap in the centre.
18. Secure both lengths of cloth with cable ties to the centre batten, about 30 cm apart; work from the centre outwards. Each tie goes up through both cloths and then down through both.
19. Similarly secure each length of cloth with cable ties to the bottom batten.
20. Staple the ends of the lengths of cloth to the front and back poly-pipe making sure the cloth is tight; we don't staple the cloth to the two centre arches to allow flexibility during heavy winds.
21. Cut off the excess of the cable ties to make it look neat - not yet done in the photo.

The door and the ends

22. Place a piece of timber as the thresh-hold under the door opening.
23. In soft soils you may also need a piece of timber under the up-right at the back.
24. Cut a length of 4.3 m shade cloth; allow 10-15 cm excess at the bottom to cover with soil; staple it to the back arch, starting in the middle and keeping it tight, and cut the excess.
25. Cut a length of shade cloth to fit the half of the front-end that does not include the door, about 2.3 m; allow 10-15 cm bottom excess; staple it to the arch and the upright, and cut to shape.
26. Measure the width for the remaining part of the front, then cut that width plus15 cm of shade cloth; allow 10-15 cm excess; staple it to the poly-pipe and the door frame, and cut to shape.
27. Cut and fit shade cloth into the door if that has no mosquito gauze.
28. Attach the door to the centre upright at the front; make sure it closes; put the latch in place.
29. Close the gap above the door with shade-cloth.
30. Shovel loose soil onto the excesses at the front and back bottoms; unwanted excess can be rolled up and stapled to the arch. Fill any gaps between the bottom battens and the ground.

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