

Greenhouse cultivation guarantees the production of vegetables, fruit trees, herbs, and medicinal and ornamental plants throughout the year, protecting them from adverse conditions such as climate change or pest attacks.



## Components

The greenhouse frame can be made of wood, bamboo, metal, or a combination. Its walls and covering are made of antiviral micromesh and transparent plastic that protects from ultraviolet light and torrential rains.

### Materials

- 6 x 1-inch pipes
- 14 x 3/4-inch pipes
- 100 self-tapping screws
- 5 pounds of No. 12 galvanised wire
- 50 metres of rubber or old hoses to use as rivets
- 85 metres of antiviral micromesh
- 2 bags of cement
- Gravel
- Labour for 8 days of work
- Sand
- Irrigation system: water tank, hose, nipples, valves, etc.

Training processes are an important part of successful management. People from each group must be clear on the responsibilities and benefits that they'll obtain from starting a community greenhouse.



## Benefits

These small-area investments meet the need of producing enough food to feed a family, improving the quality of life and nutrition of farmer families and generating surplus crops that can be sold.



Interior temperature and humidity are important to create a favourable environment for the crops.



## Key points

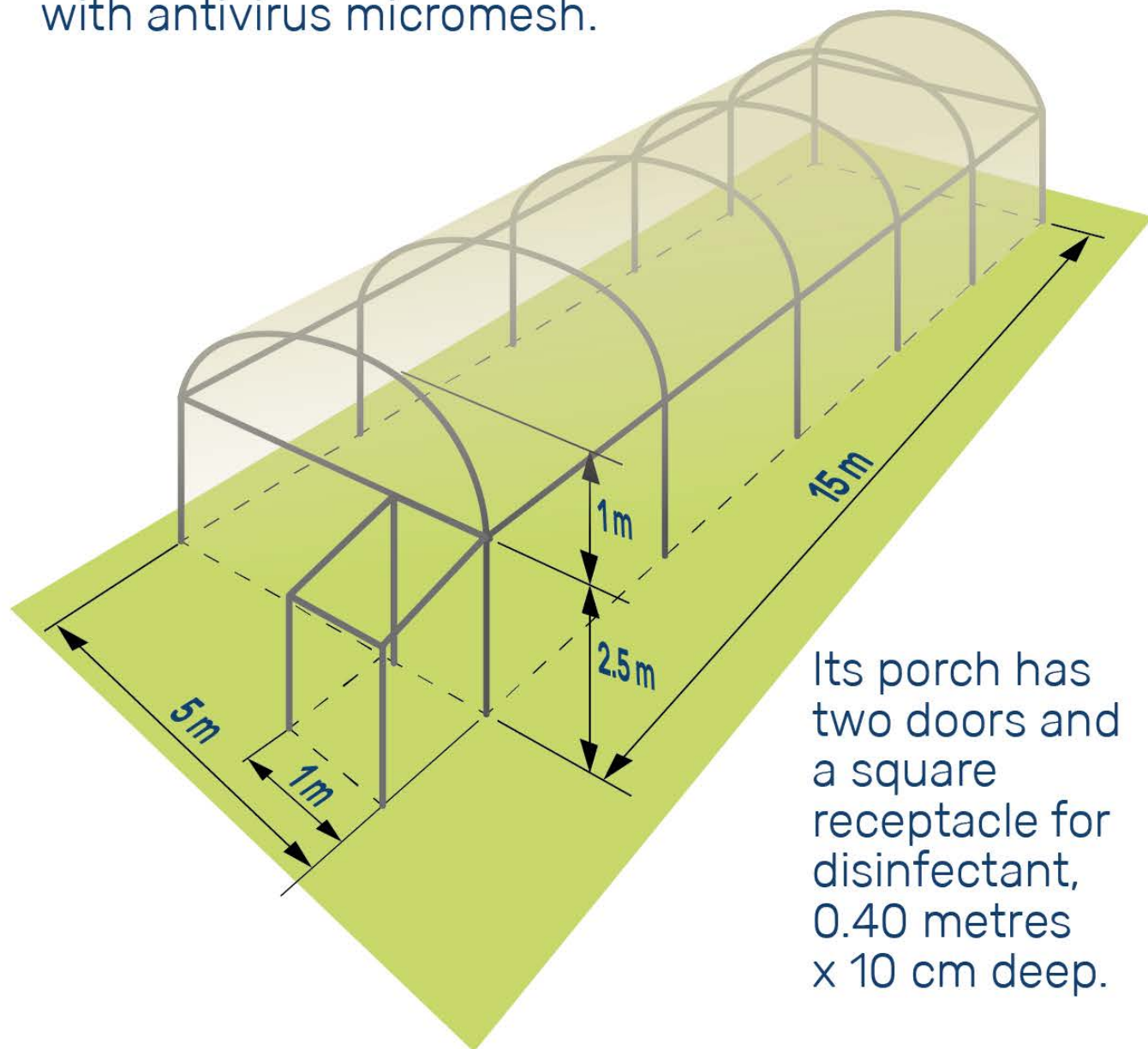
- Select ground with very little slope.
- Build along the course of the sun to take advantage of light (North-South) or make it parallel to wind direction in areas with strong winds.
- Select the model type and type of construction materials you are going to use.
- Determine what kind of irrigation is available and how crops will be managed with companion planting and crop rotation.





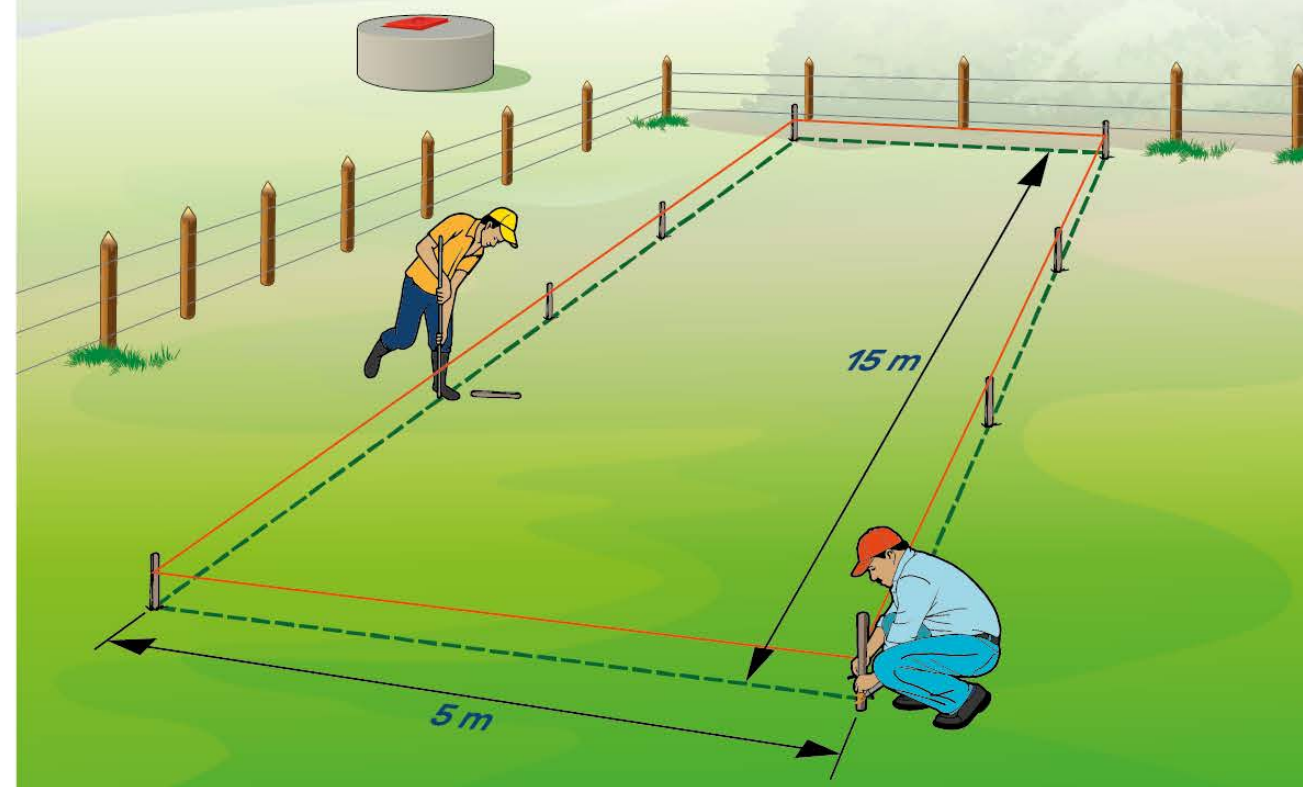
# Step by step: Setting up a greenhouse

This greenhouse has a metal tube frame, covers 75 square metres (m<sup>2</sup>) and is covered with antivirus micromesh.



## Step 1

- **Select and prepare** flat terrain near a chlorine-free water source for irrigation.
- Fence the area in to avoid animal damage to the structure.
- Delimit the area with tape, string, stakes and a hammer.



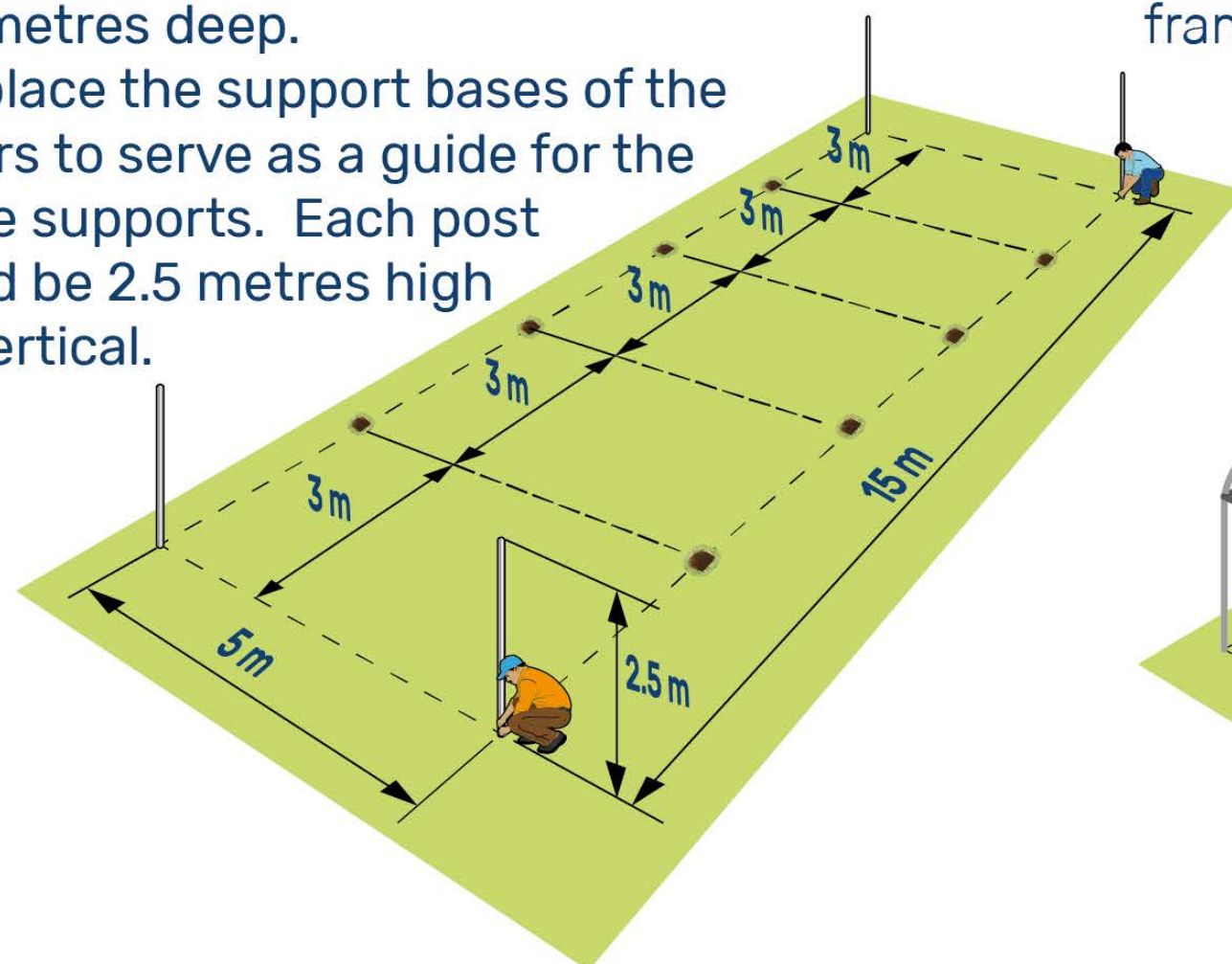
## Step 2

- **Prepare the twelve support bases and anchoring**
- Cut the 6-metre pipes in half.
- Weld 2 half-inch rod pieces to each 3-metre pipe in a cross-shape, for anchoring.



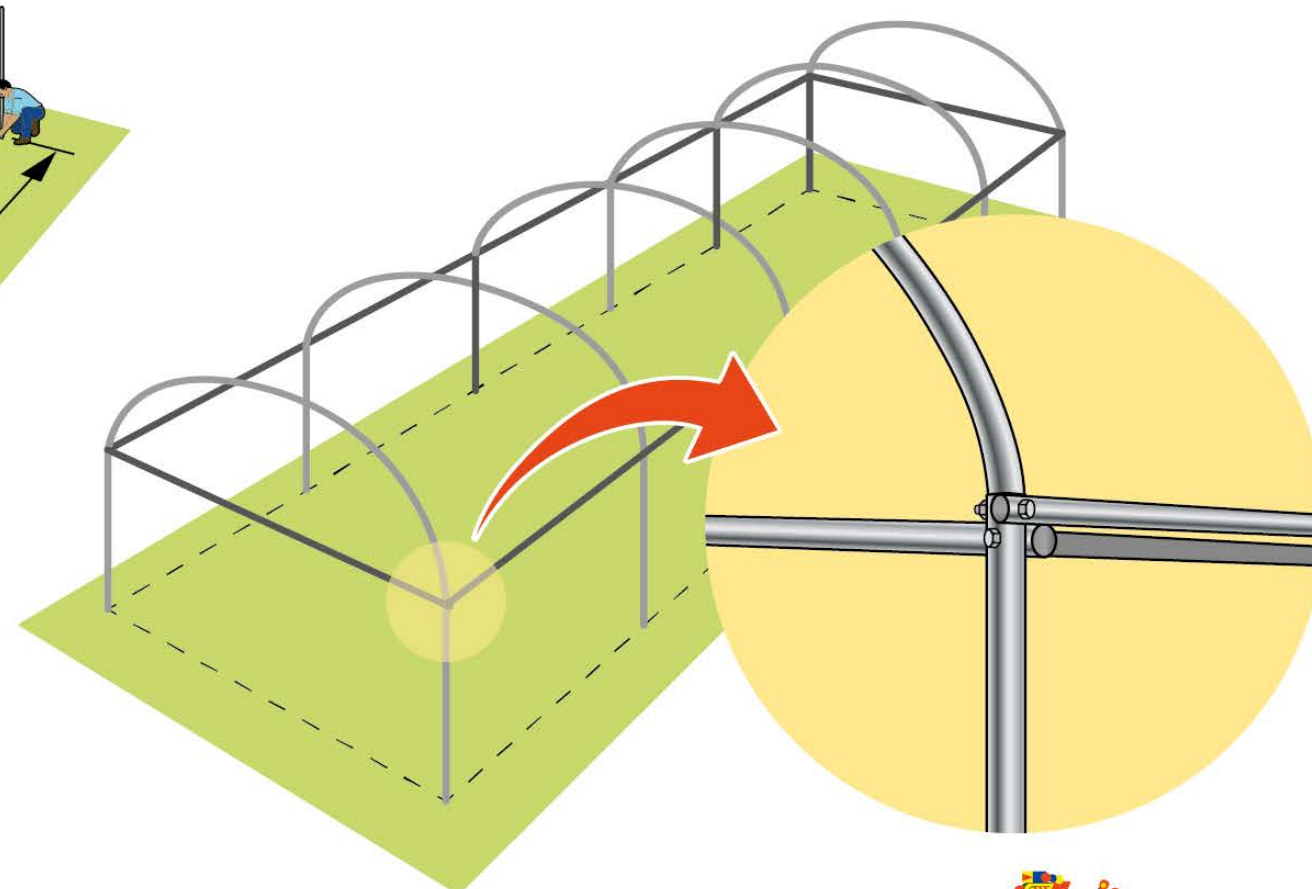
## Step 3

- Make a hole every **3 metres** for the support bases. Each hole is 40 centimetres wide by 50 centimetres deep.
- First place the support bases of the corners to serve as a guide for the middle supports. Each post should be 2.5 metres high and vertical.



## Step 4

**Bolt down the frame** in order to stabilise the support bases. Weld five 3/4-inch pipes around the frame where the bases fit into the arches.



## Step 5

**Lay the tensors** on each post using No. 12 wire to give the structure stability against wind and rain.

