

## **Fodder Tent: Tray Pooling vs. Shade-Cloth Shelves (Drainage & Hygiene)**

### **Abstract**

We encountered pooling water and slime on rigid fodder trays. Standing water led to biofilm and smell. We replaced trays with tensioned shade-cloth shelves so water drains through and surfaces dry faster. This paper records what happened, why, and how better drainage and ventilation solved it.

### **Introduction**

Our plan was to remove pooling by design: switch to drain-through shelves, keep steady airflow across mats, and light-proof wetted paths.

### **Body**

What happened (signs we saw):

- Water pooled at tray edges; edges grew slime and smelled.
- Mats stayed shiny-wet for hours after irrigation.

Why we encountered it:

- Poor drainage extends surface wetness and invites biofilm/fungi. Fodder systems benefit from fast drainage and good ventilation (WRC, 2025; CTCN/UNEP, 2022).

How we solved it (step-by-step):

1. Switch to shade-cloth shelves: Tensioned fabric let water pass through fast; no lips to hold puddles.
2. Airflow: Clip-fans and extractor moved air across mats to dry surfaces.
3. Clean cycle: Short, regular cleans between batches; remove seed husks and debris.

## **Conclusion**

We kept shade-cloth shelves (no pooling), continuous light airflow, and routine cleans. Mould risk and smell dropped sharply.

## References

Climate Technology Centre & Network / UNEP (2022) *Hydroponic fodder production technology (Annex 1)*. Available at: <https://www.ctc-n.org/sites/default/files/2022-09/Annex%201%20Hydroponic%20fodder%20production%20technology%281%29.pdf> (Accessed 25 October 2025).

Water Research Commission (2025) *Evaluating the potential of hydroponic fodder production*. Available at: <https://www.wrc.org.za/wp-content/uploads/mdocs/3218%20final.pdf> (Accessed 25 October 2025).