



Experience by Young Africa Agri-Tech

In Mozambique, Dondo, Macharote, Sofala



Bacterial wilt is a common disease in tomatoes, especially in the humid tropics. The soil bacterium *Ralstonia solanacearum* rapidly kills tomato planted in the field or greenhouse. Several times, the tomato crop already failed completely, especially when crop rotation was less than the recommended 4 years.

The **solution** was to experiment with planting within greenhouses (plastic tunnels) in repurposed sacks filled with clean soil and compost. The entry of *Ralstonia* bacteria could be prevented with a plastic sheet placed between the contaminated soil and the sacks. So far plants stayed healthy.

Experience description

Tomato plants infected with bacterial wilt has been a severe problem for the training centre Young Africa Agri-Tech. In order to overcome the problem a trial was initiated to analyse, if growing tomatoes in bags would work on a larger scale. The results did show positive effects, but the percentage of infection was still too high. After running a few more trial variations, now the tomatoes are planted in bags on a slightly raised soil bed that is covered with a thick plastic sheet. The bags are filled with a soil/compost mixture and closed with a needle and thread. Furthermore, the bags are placed flat on the plastic sheets. Three holes are cut out to insert one tomato plant each. Three further holes on the opposite side make drip irrigation possible. The plants are later pruned and supported by a trellis wire and a string.



Other characteristics



IMPACTS

- Income generation for the Agri-Tech centre
- Higher resource efficiency (labour, seeds, fertiliser, pesticides)
- Potential to reach other farmers in the area



CHALLENGES

- Low bag supply (= repurposed packages for animal food)
- Plastic sheets and bags might pose a hazard to the environment once discarded (can be reused though)
- High labour input



LESSONS LEARNED

- Growing tomatoes on contaminated soil is possible
- High labour input is required
- It is easier on small scale, as it doesn't require high amounts of resources