

Overview

Growing media greatly influences quality of seedlings and this in turn affects the crop stand and eventually limits agronomic performance after transplanting. Hence in East Shoa zone, Ethiopia, farmers who produce hybrid tomatoes enter into contractual agreements with flower producing companies which produce high quality seedlings using imported peat moss as a growing media. However, imported media is expensive and smallholder producers cannot afford to buy and use it. In addition, farmers have no access to buy the media and grow their own seedling because commercial importers are not available in Ethiopia. This study evaluates the potential of locally available materials to substitute imported peat moss as a growing media for seedlings of hybrid tomatoes.

Objectives and methods

- The objectives of this study was to evaluate the potential of locally available materials to replace the imported peat moss as growing media for seedlings of hybrid tomatoes.
- The study was conducted in Dugda district of East Shoa zone, Oromia regional state in a green house constructed on farm.
- LIVES prepared tomato seedling growing media (**LIVES tomato seedling media**) which comprises of locally available peat soil from Lake Koka, commercial compost from Debreziet-Genesis farm, sugar cane bagasse from Wonji sugar factory and red ash from Meki town. These materials were mixed as follows 25% local peat soil, 50% compost, 12.5% sugar cane bagasse and 12.5% red ash.
- Data on selected agronomic parameters were collected and analyzed using descriptive statistics.



LIVES-Tomato seedlings growing media



Major findings

- Overall, there is a strong similarity between seedlings grown on imported peat moss and the alternative 'LIVES tomato seedling media' in terms of selected agronomic parameters as illustrated on the Figures above.
- Germination days from the alternative hybrid tomato seedlings growing media was delayed by 3 days compared to the imported peat moss.
- Seedlings from alternate hybrid tomato seedlings growing media was delayed by 7 days to attain transplanting stage compared to the imported peat moss.
- The cost of preparing alternate hybrid tomato seedlings growing media is cheaper than the imported peat moss. Preparation of 60 kg 'LIVES-Tomato seedlings growing media' cost 82 ETB, while the same amount of imported peat moss costs about 320 ETB.
- The results suggest that any smallholders who is producing hybrid tomato can prepare and use alternative hybrid tomato seedling growing media (LIVES-Tomato seedlings growing media).