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Overcoming seasonality in the tropics by growing tomato (*Lycopersicon esculentum* Mill.) varieties under cooled conditions

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ABSTRACT

The main objective of this work was to overcome seasonality in tomato production under hot tropical summer conditions, as well as to evaluate the adaptability and productivity of cherry and normal size indeterminate tomato varieties. The tested varieties were the standard varieties, Chanoa, Merel, Sensie and Yusra and the cherry varieties, Tomi and Elitro. The cherry variety Elitro recorded the highest plant height followed by the normal Merel. The cherry varieties over-numbered the classic varieties for mean number of fruits per cluster and mean number of fruits per meter square. There was no significant difference between the best yielders, the classic varieties Chanoa (25.63 kg/m²) and Yusra (24.13 kg/m²) and the cherry variety Elitro (24.00 kg/m²). Yusra recorded the highest fruit diameter (60-70 mm). The classic type tomatoes are well known and of high demand in Sudan that give Chanoa and Yusra better adoption chances. Our results clearly indicated that production of summer tomato under cooled plastic house conditions is a new technique that has the potential to overcome the seasonality of tomato production under Sudan and similar tropical condition.

KEYWORDS

Indeterminate Tomato; Cherry; Cooled Plastic House; Off-Season; Sudan; Tropics

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