



## Study on yield and quality of okra [*Abelmoschus esculentus* (L.) Moench] hybrids

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### ABSTRACT

Ten okra hybrids were studied for yield and quality parameters under Parbhani conditions at Department of Horticulture, Marathwada Agricultural University, Parbhani during *Kharif* 2009. Syngenta 016 recorded highest marketable yield (171.60 q/ha) and total yield (211.15 q/ha), while lowest unmarketable yield (39.91 q/ha) showed minimum loss of 18.90 per cent over total yield. It had highest weight of fruit (10.50 g), number of fruit per plant (35.76), seeds per fruit (33.57), length (11.93 cm) and keeping quality (10.50 days). Weight of fruit, number of fruits per plant and seeds per fruit were significant on yield parameters, whereas diameter and ridges were non-significant.

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**Key words :** Okra hybrids, Quality, Yield

Okra [*Abelmoschus esculentus* (L.) Moench] is cultivated on an area of 409.00 thousand ha with production of 4192.80 thousand tonnes and in Maharashtra, it is cultivated on an area of 26.30 thousand ha with production of 165.40 thousand tonnes. Presently productivity of okra in India is 10.30 tonnes/ha and in Maharashtra State it is 6.3 tonnes/ha (Anonymous, 2008). Yield obtained from local and conventional varieties in this region is not upto the national level. There is heavy loss in yield due to major pests (Jassid, aphid and fruit borer) and also due to diseases (YVMV). However, there is a substantial scope for the improvement of yield earning hybrids to ideal climatic conditions. Hence, there is an immediate requirement to standardize hybrids and varieties, which yields more per unit area and well suited in the cropping system and climatic conditions prevailing here.

### MATERIALS AND METHODS

The experiment was laid out in a Randomized Block Design with three replications at the field of Department of Horticulture, Marathwada Agricultural University, Parbhani during *Kharif* season of 2009. The treatments under study were : T<sub>1</sub> (Mahabeej-913), T<sub>2</sub> (Mahyco-10), T<sub>3</sub> (Syngenta 016), T<sub>4</sub> (Rasi 20), T<sub>5</sub> (Sleek), T<sub>6</sub> (Soh 136), T<sub>7</sub> (Prerna), T<sub>8</sub> (Rashmi), T<sub>9</sub> (BSS 828) and T<sub>10</sub> (Parbhani Kranti). The recommended package of practices were adopted to raise the crop successfully. Observations on

weight of fruit, number of seeds per fruit, number of fruit per plant, marketable yield per plot and hectare, unmarketable yield per plot and hectare, total yield per plot and hectare, length, diameter, ridges and keeping quality of fruits were recorded. The mean data were subjected to statistical analysis following standard procedure (Panse and Sukhatme, 1967).

### RESULTS AND DISCUSSION

Analysis of variance carried out for all the parameters revealed significant differences among yield and quality and reflected genetic variability among the test material (Table 1).

Syngenta 016 recorded maximum weight of fruit (10.50 g) followed by Mahabeej 913 (10.20 g) and BSS 828 (10.00). Highest number of seeds per fruit was found in Syngenta 016 (33.57) which was statistically at par with Mahabeej 913 (31.40). Maximum number of fruits per plant were recorded in Syngenta 016 (35.76) followed by Mahabeej 913 (35.27) and BSS 828 (32.06). Similar type of results were reported by Neeraja *et al.* (2002), Tewari and Singh (2003), Singh *et al.* (2003) and Sachan (2006).

Number of fruits per plant have direct influence on yield parameters. Highest marketable yield (171.60 q/ha) and total yield (211.15 q/ha) was found in Syngenta 016. Due to pest and disease attack there were yield losses which counted in unmarketable yield. It was