Egg plant (*Solanum melongena* L.) is one of the most important vegetables grown in almost all parts of the country except at higher altitude. It is very popular among the people of all social strata and hence, it is rightly called as vegetable of the masses. However, its productivity is very low because the grower uses old varieties/land races. Existence of immense variability in this crop, provides an opportunity to develop plants with good quality and higher productivity. The hybrids have good yield potential and quality produce. So the evaluation of large number of genotypes/hybrids is a need for selecting desired variety. Keeping in view the above facts, the present investigation was undertaken to assess relative performance of hybrids.

The investigation was carried out at permanent vegetable research farm of Bihar Agricultural College, Sabour, Bhagalpur during rainy season 2007-08 and 2008-09. The experiment was laid out in a Randomized Block Design with four replications included 6 hybrids. The healthy seedlings were transplanted at 60 x 60 cm spacing under plot size (3.6 x 3.0 m²). All the operations were carried out as per standard recommendations. The check Pusa hybrid – 6 was at the top with yield of 421.93 q/ha. Higher yield in Pusa hybrid – 6 was attributed due to cumulative effect of large fruit size, highest fruit weight, higher number of branches and more number of fruit per plant. From the above finding it is concluded that Pusa hybrid – 6 was the best for the East Bihar.

A perusal of data (Table 1) revealed a significant difference in different hybrids with regard to plant height. The tallest plant (85.52 cm) was noted in KS – 224 and shortest (74.21 cm) in ARNH – 200. Pusa hybrid – 6 produced the highest number of branches/plant (7.40) which was at par with NDBH – 1 (6.97) and the lowest was HABH-08 (5.98).

The hybrids differed significantly in number of days taken to 50 per cent flowering. The earliest flowering (36.00 days) was recorded in Pusa hybrid – 6 which showed parity with NDBH – 1. While ARNH – 200 flowered very late (48.00 days). The maximum fruit set (61.38%) was also recorded in Pusa hybrid – 6 which was statistically at par with NDBH – 1 (6.97) and the lowest was HABR-08 (5.98).

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Variable performance of round fruited *F₁* hybrid of egg plant (*Solanum melongena* L.) in East Bihar

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ABSTRACT: The present experiment was undertaken to assess the performance of 6 hybrids at permanent vegetable farm of Bihar Agricultural College, Sabour, Bhagalpur during rainy season 2007-08 and 2008-09. The experiment was laid out in a Randomized Block Design with four replications included 6 hybrids. The healthy seedlings were transplanted 60 x 60 cm spacing under plot size (3.6 x 3.0 m²). All the operations were carried out as per standard recommendations. The check Pusa hybrid – 6 was at the top with yield of 421.93 q/ha. Higher yield in Pusa hybrid – 6 was attributed due to cumulative effect of large fruit size, highest fruit weight, higher number of branches and more number of fruit per plant. From the above finding it is concluded that Pusa hybrid – 6 was the best for the East Bihar.

KEY WORDS: Varietal performance, *F₁*, Hybrid, Egg plant