Evaluation of Baby Corn Hybrids on Varying Plant Population and Nutrient Levels

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Introduction

India is a largest producer country of the milk with largest livestock population in the world. Main herds of cow/ buffalo exist in surrounding areas of town and cities for supply of milk. The animal productivity directly depends on the availability of good quality green fodder. At present, the country faces a net deficit of 35.6% of green fodder, 26% of dry-crop residues and 41% of concentrate feed ingredients (www.dare.nic.in/nodel/87). To overcome this problem, there is a need to shift from sole food and fodder crops to the dual or multipurpose food cum fodder crops. Under this situation, baby corn can be a good option as a dual purpose food cum fodder crop that can maintain the supply of fodder to the burgeoning livestock population of the country. Baby corn (*Zea mays* L.) refers to the whole, entirely edible cobs of immature corn, harvest just before fertilization at silk emergence stage. It is a dual purpose crop which provides green cabs for human consumption and fodder for livestock within 45-60 days after sowing. Therefore, a field experiment was conducted during *kharif* 2014 at Agricultural Research Station Banswara to evaluate performance of hybrids at plant spacing and nutrient levels.

Materials and Methods

The experiment was comprised with two nutrient levels (150:50:60 and 200:60:80kg NPK/ha) in main plots and plant spacing (60x20cm and 60x15cm) in sub plot and four hybrids (Vivek hybrid-27, HM-4, seed tech-2524 and HQPM-1) in sub-sub plots with three replications.

Results and Discussion

The results revealed that the application of high fertility levels (200:60:80kg NPK/ha) significantly increased the plant height, green fodder yield, cob's yield with husk and without husk of baby corn hybrids in the tune of 4.48,6.40 and 8.47% over low nutrient levels (150:50:60kg NPK/ha), respectively. The close plant spacing of 60x15cm recorded significantly increased plant height, green fodder yield, baby corn yield with husk and without husk in tune of 2.91, 16.41, 15.48 and 8.87% higher over wide spacing (60x20cm), respectively.

Among hybrids, HM-4 observed tallest (200cm) that was found statically at par with HQPM-4 and significantly 9.95 and 7.35% superior over Seed Tech-2324 (181.9cm) and Vivek hybrid-27 (186.9cm), respectively. The maximum green fodder yield (244q/ha) obtained in Vivek hybrid-27 which was found significantly 38.64, 22.00 and 8.44% higher than HM-4 (176q/ha), Seed Tech 2324 (200q/ha) and HQPM-4 (225q/ha), respectively.

The maximum baby corn yield with husk (121.52q/ha) produced in Seed Tech-2324 which was significantly 84.32, 45.27 and 5.95 % higher over HM-4 (65.93q/ha), Vivek hybrid-27 (83.65q/ha) and HQPM-4 (114.73q/ha), respectively. The maximum baby corn yield without husk (20.13q/h) also obtained with Seed Tech-2324 which was significantly 63.39, 27.41 and 4.73% higher over HM-4 (12.32q/ha), Vivek hybrid-27 (15.80q/ha) and HQPM-4 (19.22q/ha), respectively. A significant enhancement in yield of baby corn hybrids recorded with high nutrient level and close spacing.

Conclusion

This experiment concluded that baby corn can increase the animal's productivity and farmer's profitability in urban area by using high producer genotypes at lower plant spacing with high nutrients level.

References

http//www.dare.nic.in/nodel/87