ABSTRACT: A field experiment was conducted at the College Agronomy Farm, Anand Agricultural University, Anand to find out the response of Rabi maize (Zea mays L.) varieties to different levels of nitrogen for green forage yield under middle Gujarat conditions during Rabi season of 2012-13. The experiment consisted of twelve treatment combinations comprised of three varieties (African tall, GM-3 and GM-4) and four nitrogen levels (80, 100, 120 and 140 kg N ha\(^{-1}\)). Significantly the highest green forage (543.62 q ha\(^{-1}\)), dry matter (125.29 q ha\(^{-1}\)) and crude protein (6.56 q ha\(^{-1}\)) yields of forage maize were recorded by African tall variety over the variety GM-3 and GM-4. The green forage, dry matter and crude protein yields were significantly influenced by nitrogen levels. Application of nitrogen at 140 kg ha\(^{-1}\) produced significantly higher green forage (543.40 q ha\(^{-1}\)), dry matter (113.53 q ha\(^{-1}\)) and crude protein (6.25 q ha\(^{-1}\)) yields as well as crude protein content (5.53 %). The higher net realization of 21282 Rs. ha\(^{-1}\) and higher B.C.R. value of 1.09 were recorded in variety African tall. Among different nitrogen levels, application of 140 kg N ha\(^{-1}\) resulted in higher net realization (Rs. 19129 ha\(^{-1}\)) with B.C.R. of 1.05.

KEYWORDS: Rabi maize, Nitrogen, Green forage


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