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5 H V S R Q V H R I S R W D W R Solanum Tuberosum / 9 D U L H W L H V W R S O D Q W L

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**P**otato is a temperate crop requiring low temperatures for growth and yield. Production of potato in the semi-arid lowland Nigeria is restricted to periods of low temperatures that prevailed from early November to late February. The general approach for potato in this region is to relate the planting date to coincide with the period of relatively low temperatures, as high temperature inhibits growth and yield. Based on the above, field experiments were conducted in two locations at the Teaching and Research Farm of the Kebbi State University of Science and Technology, Aliero, during 2016/2017 dry season. The aim was to determine the most appropriate planting date and most suitable variety in the study area. Treatments consisted of factorial combinations of four Planting dates (1<sup>st</sup> November, 1<sup>5</sup> November, 1<sup>st</sup> December and 1<sup>5</sup> December 2016) and four potato varieties (Bertita, Diamant, Lady-christl and Nicola). The experiments were laid out in a Randomized Complete Block Design with three replications. Results revealed that stand count, plant height, number of leaves per plant, shoot dry weight, number of tubers per plant, weight of tubers per plant, mean tuber weight, mean tuber diameter and fresh tuber yield were higher when planted on 1<sup>st</sup> + 1<sup>5</sup> November. Bertita proved to be the most robust in terms of growth; and with Nicola, in terms of yield compared to the other varieties. Based on the results of this study, it could be concluded that, planting of potato from 1<sup>st</sup> November to 1<sup>5</sup> November coupled with either Bertita or Nicola give the highest potato yield in the study area.

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