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Economic assessment of weeds management methods in bambara groundnut (*Vigna subterranean* (1) verdc) at Sabon Gari in the northern Guinea Savanna of Borno state, Nigeria

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 $\mathbf{B}$  ambara groundnut though cultivated majorly by women remains a crop of high value to some local communities. Field trials were conducted in the rainy seasons of 2010 and 2011 to assess the effect of weed control methods on the yield and profitability of bambara groundnut (Vigna subterranean (L.) Verdc) at Sabon Gari in the Northern Guinea Savannah of Borno State, Nigeria. The experiment was made up of 8 treatments (weedy check, pendimenthalin only, pendimenthalin followed by one hoe weeding, butachlor only, butachlor followed by one hoe weeding, hoe weeding once, hoe weeding twice and hoe weeding thrice) all arranged in a randomized complete block design (RCBD) and replicated three times. The weedy check and the plots that were treated with pendimethalin only supported statistically similar weed dry matter in both years, which was significantly higher than the other treatments. In 2010, all the hoe weeded plots produced significantly grain yields than the weedy check and the herbicide treated plots except pendimethalin followed by hoe weeding once. None of the herbicide treatments out-yielded the weedy check. In 2011, however, all the hoe weeding once and hoe weeding twice treatments outyielded the hoe weeding trice treatment, although the difference was not significant. The result shows that bambara groundnut production was profitable in the two years of the study. The mean of the two years experiment shows that pendimethalin followed by one hoe weeding had the highest net benefit of N60,875, while the least was recorded by butachlor followed by one hoe weeding (N17,494). The mean MRR indicate that hoe weeding once recorded 1.56 as the highest while the least was observed in hoe weeding thrice (0.42). It was therefore recommended that the weeds management methods be tried in larger field for economic impact, the application of pendimethalin herbicide followed by one hoe weeding be studied further on bambara groundnut weeding practices.

## Biography

Dr. Ayuba La'ah Banta who was born in 1959 in Kaduna State, Nigeria; joined the service of Nuhu Bamalli Polytechnic Zaria in 1986 and rose to the rank of Chief Lecturer, Head of Department of General Agriculture and Director of School of Agricultural Technology in 2011 – 2012. He is a holder of BSc. Agriculture (1984), MSc. Agricultural Economics (1999) and Ph.D Agricultural Economics (2011) from Ahmadu Bello University, Zaria – Nigeria. Dr. A. L. Banta joined Kaduna State University in 2013 as Senior Lecturer and remains the current Head of Department of Agricultural Economics and Extension. He specialises in Farm Management and Production Economics. He has been teaching Statistics, Agricultural Economics and Agricultural Cooperatives. He has undertaken research on aspects of resource use efficiency, sustainable production system, organic farming, agricultural marketing, vocational and technical education, technological advancement in agriculture with numerous articles published in reputable journals within and outside the country. He is happily married to Mrs. Anna Mercy Ayuba and they are blessed with children.

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