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contacto@agriculturarecnica.net.mx

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Arellano Vázquez, José Luis; Galicia Franco, Jorge Alberto  
Rendimiento y características de planta y panoja de amaranto en respuesta a nitrógeno y  
cantidad de semilla

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### Abstract

In order to mechanize the harvest of amaranth, short plants of thin stalk, uniform height and of high yield are needed. The objective of this research was to determine the effect of nitrogen dose and seed quantity on yield and plant and panicle traits of amaranth *Amaranthus hypochondriacus* L. An experiment was conducted at Ayapango, state of Mexico, Mexico, under rainfed conditions in 1998. A randomized complete blocks design with four replications and split-split plot arrangement was used. Nitrogen doses 0, 80 and 160 kg ha<sup>-1</sup>, seed quantities 2, 4 and 6 kg ha<sup>-1</sup> and the cultivars Nutrisol, Revancha and Rojita were tested. Nitrogen rates showed significant effect on yield and panicle width ( $p < 0.01$ ). Seed quantity showed no effect on yield, but on most of the plant and panicle traits recorded. Average yield was 1696 kg ha<sup>-1</sup>. The highest yield of 2922 kg ha<sup>-1</sup> was observed in Nutrisol, significantly superior to Revancha and Rojita. On the basis of its characteristics: 145 cm plant height, 13.6% lodging, 7.9% of infested plants and 20 cm panicle length, cv Nutrisol is suitable for sowing and mechanical harvest at the Ayapango area in the state of Mexico, Mexico.

### Keywords

*Amaranthus hypochondriacus* spp.,  
*Macrophoma* sp., grain weight, lodging.

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