

HIGH-QUALITY PRODUCTIVITY OF GREEN ASPARAGUS MALE HYBRIDS IN BUENOS AIRES PROVINCE, ARGENTINA

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Asparagus (*Asparagus officinalis* var. *altilis*) represents a perennial diversification production alternative for Argentina. With the aim of commercially evaluating seven all-male genotypes (Italo, Zeno, Eros, Ercole, H-668, Marte y Giove) versus a North-American conventional-hybrid control (UC-157), a trial was initiated in 2006 in the Experimental Field of the Faculty of Agronomy, UNCPBA (36°48' lat. S-59°51' long. W). In the ninth production year, 39 harvests were carried out and the following characters scored between 19/8/2016-17/11/2016: total fresh commercial productivity (TFCP), long and short turion fresh commercial productivity (LTFCP, STFCP), total commercial turion number (TCTN), long and short commercial turion number (LCTN; SCTN), mean turion weight (MTW) and calibre distribution, CD (J: Jumbo; XL: Extra-Large; L: Large; M: Medium; S: Small y A: Asparagina). Turions were cut, selected (long: 22cm, short: 17cm), weighed, counted, washed and measured. Data were analysed by ANOVA-LSD ($P \geq 0.05$). Overall mean values were: TFCP: 4.41 t.ha⁻¹, TNCT: 267189 turions and MTW: 17 g.turion⁻¹; LTFCP: 2.77 and STFCP: 1.63 t.ha⁻¹; LCTN: 148817 and SCTN: 118375. The genotypes gave the following values for TFCP, Giove: 5.53^a, UC-157: 5.32^{ab}, Ercole: 4.95^{abc}, Eros: 4.46^{bc}, H-668: 4.43^{bc}, Italo: 4.24^c, Zeno 3.22^d y 3.10^d. The following genotypes exceeded the mean for LTFCP: Giove: 3.66a, Ercole: 3.21ab, Eros: 2.92ab y Italo: 2.81ab and for STFCP: Giove: 1.87a; UC-157: 1.84ab; H668: 1.79abc y Ercole: 1.74abcd. The harvested turions gave these values: for TCTN, Giove: 306501^a, UC-157: 304005^a, H-668: 283998^a, Ercole: 310986^a, Eros: 286494^a, Marte:193011b; Italo: 231504b; and Zeno: 221013b. The following exceeded the mean for LCTN: Giove: 190499^a, Ercole: 184540^{ab}, UC-157: 178000^{ab}, Eros: 164498^{ab}, H-668:152502^{bc}, and for SCTN, H668: 131500a; ERcole: 126500ab; UC-157: 126001ab; EROS: 122000ab. For CD, 41% were larger calibres and 59% shorter. For DC, Giove and UC-157 production was equally divided between larger and smaller calibres (50%:50%); after these, the following order was obtained for larger calibres: Marte, Italo, Eros and H-668: 40%, and Zeno: 30%. The main defect found was ear sprouting (93%, mainly in the case of Zeno, due to it being a white hybrid cultivated as a green one (95%), followed by OD (4%), DTC (2.6%) and DP (0.2%). The productivity achieved for Giove, UC-157, Ercole and Eros was encouraging.