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Título artículo: Inter-cultivar variability in the functional and biomass response of garlic (*Allium sativum* L.) to water availability.

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RESUMEN: Increased water scarcity can seriously threaten crop productivity worldwide. Therefore, the search for better adapted cultivars to water limitation is needed. Extensive sexual sterility of garlic limits traditional breeding programs and the study of physiological traits provides valuable information for crop selection to stressful conditions. Variability in the functional response of garlic to well-watered (WW) and water deficit (WD) conditions and its relationship with biomass components was analysed in five garlic cultivars ('Fino de Chinchon', 'Gardacho', 'Purple from Las Pedroñeras', 'Violet Spring' and 'White Spring'). Significant differences in bulb biomass were found between water treatments, among cultivars and the interaction of the two factors. The observed cultivar variability in yield components was reflected in the variability patterns of functional traits, especially when the plants endured the peak of water deficit. This variability conformed to different adaptive strategies with regards to the plant water economy (i.e. drought escape; drought avoidance through water saving; or water spenders). Inter-cultivar variability should be considered and further explored in garlic selection and future crop improvement.

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