



つくば機能植物イノベーション研究センター  
形質転換植物デザイン研究拠点研究セミナー  
(81)

日 時 : 2025 年1月 10 日(金) 15:00-16:00  
場 所 : 生農棟 F506 室

タイトル : **Unveiling the potential of an Italian tomato landrace under severe abiotic stress**

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Osmotic stress impairs growth and physiological performance in tomato, which is one of the most economically important vegetables worldwide that is cultivated in arid and semi-arid areas. Plant landraces, which are heterogeneous and local adapted of domesticated species, offer a unique opportunity to valorize available germplasm, thus underpinning the productivity, resilience, and adaptive capacity of staple crops in vulnerable environments. Our group investigated the response of tomato seedlings and plants to salinity and drought, including commercial varieties, an ancestral wild relative, and a landrace. The ability to recover upon cessation of stress was also of our interest. The heterogeneous panel evaluated in these studies revealed different adaptive strategies to cope the stresses. The results obtained have allowed us to understand, at least in part, the mechanisms employed by the Italian tomato landrace to better counteract osmotic stress related to the climate change pressure.

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