

[P4] Crop Genetics and Physiology

2021年9月9日(木) 12:15 ~ 14:00 Room 4 (Poster) (Crop Genetics and Physiology)

13:15 ~ 14:00

[P4-20] Assessment of *Indica* Rice Cultivars for the Use of Whole Crop Silage

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Whole crop silage (WCS) is a fermented roughage for which the whole plant of grass species, including panicles, leaves, and stems, are harvested at the late ripening stage and used for silage preparation. In Japan, the cultivation of WCS rice (*Oryza sativa* L.) has been promoted from the viewpoints of more efficient use of paddy field, improvement of self-sufficient ratio of livestock feed, and promotion of integrated farming system of rice cultivation and cattle raising. Thus, breeding of new rice cultivars for the use of WCS has grown attention to researchers and breeders. In particular, it would be useful to select genetic resources on the basis of WCS-related traits. Here we report an assessment of two *indica* rice cultivars, 'Calotoc' and 'Anjana Dahn', as for the use of WCS. These two *indica* cultivars and existing WCS cultivars, 'Tachiayaka', 'Tachisuzuka', and 'Leafstar' were grown in paddy fields in the Institute for Sustainable Agro-ecosystem Services, The University of Tokyo, Japan, and compared in light of biomass production, lodging resistance, spikelet number, sugar content, and water content, all of which are traits related to WCS aptitude. From the results, we found that 'Calotoc', rather than 'Anjana Dahn', has some traits suitable for WCS, and could be a genetic material for WCS breeding.