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CAES SEMINAR SERIES

"Assembly Processes of the Bacterial and Fungal Microbiota of Wild and Domesticated Wheat Species"

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Dept. of Plant Pathology and Ecology, CAES

Wednesday, October 6, 2021

12:00 noon to 1:00 p.m.

Food and coffee will be available at 11:45 a.m.

Jones Auditorium
The Connecticut Agricultural Experiment Station
123 Huntington Street, New Haven, CT

Domestication has led to substantial changes in plant physiology. How this anthropogenic intervention has contributed to altering the wheat microbiota is not well understood. In this study, we have investigated the role of ecological selection, drift, and dispersal in shaping the bacterial and fungal communities associated with domesticated wheat *Triticum aestivum* and two wild relatives, *T. boeoticum* and *T. urartu*. Our results show that the bacterial and fungal microbiota of wild and domesticated wheat species follow distinct community assembly patterns. Further, we revealed a more prominent role of neutral processes in the assembly of the microbiota of domesticated wheat and propose that domestication has relaxed selective processes in the assembly of the wheat microbiota. In the second part, I will briefly touch on recent efforts to study the biosynthetic potential of *Zymoseptoria tritici*, a wheat fungal pathogen, to produce secondary metabolites.