



2020-108: Identifying mycorrhizal fungi to enhance field crop and forage salinity tolerance

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Mycorrhizal fungi allows for better nutrient uptake in plants, through a symbiotic relationship with plant roots that takes advantage of the larger reach of fungi within the soil. While you might have purchased soil that contained mycorrhizal fungi, it's important to note mycorrhizal fungi have unique ecologies adapted to regional conditions, and much more varied than those on the market.

As some mycorrhizal fungi could have adapted in saline soil conditions, Dr. Jon Bennett will identify mycorrhizal fungi that increase salinity tolerance in plants. He will collect soil samples from saline areas in different soil zones to isolate and culture, then create conditions to create more mycorrhizal fungi spores and growth. Finally, mycorrhizal fungi in saline soils will be compared to marketed fungi. Various crops will be tested to evaluate whether they grow better with the collected mycorrhizal fungi than commercial mycorrhizal inoculants in saline soils