The effects of experimental drought on plant growth, photosynthesis, and arbuscular mycorrhizal colonization on corn (Zea mays), sorghum (Sorghum bicolor) and wheat (Triticum spp.) are investigated. It is projected that the province will see an increase in annual temperature with longer summer droughts by 2050. Arbuscular mycorrhizal fungi form symbiosis relationships with plant roots. It enhances plant growth by delivering nutrients such as phosphate to plants from the environment, and in return gets sugar from plants. Drought can lead to plant growth inhibition and yield loss. Mycorrhizae are found to be able to increase drought tolerance of some crops, suggesting that might be the solution to sustainable crop productivity under climate change. Therefore drought effects on plant performance and mycorrhizal colonization, and the relationship between plant performances and mycorrhizal colonization of major food crops are investigated. Results of this experiment will lead to further experiments on investigating the relationship between drought, arbuscular mycorrhizal fungi, plant hormone and plant performance.

Themes:

Check (highlight) the most applicable theme according to the abstract.

| Innovation and Technology | Health and Wellness | Culture and Society | Sustainability and Conservation |

Comments: Typical abstracts will include an introduction sentence, thesis or objective statement, methods, results, major findings and the conclusion, which can include future directions. The author should work on reducing the background information and providing more information on how the data will be collected and analyzed. Even if no results are present now, the author can give predicted results and talk about implications of research findings.