

Developing Agronomic Practices for Cowpea Production in Colorado

1. Faculty Mentors

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- (4) Ron Meyer, Area Agronomist, Colorado State University Extension. Email: R.F.Meyer@colostate.edu

2. Other Mentors

- (1) Jason Webb, Trinidad Benham Corporation. Email: jwebb@trinidadbenham.com

3. Study Region

Northeast Colorado. Study will take place on the U.S. Central Plains Research Station at Akron and ARDEC at Fort Collins, with trips to the study region.

4. Project Background

Alternative crops for both irrigated and dryland production in NE Colorado are limited. Cowpea is a warm-season legume that is well adapted to hot and dry conditions, and poor soils. Recent research data together with current experience of several cowpea growers in Colorado indicates that cowpea has enormous potential as an alternative crop for both irrigated and dryland systems in the state. Little is known about the functionality of cowpea within the region on irrigation management. Dry beans such as pinto beans have been an alternative crop available for irrigated production. However, that production has moved north over the years with declining acres within Colorado. Irrigation management of pinto beans was typical full irrigation management. However, cowpea show characteristics that are not conducive to full irrigation management. Utilizing a rainout shelter, we will utilize irrigation strategies to look at timing of limited irrigation strategies to maximize water and yield.

5. Internship Objectives

The main objective of this internship is to develop irrigation management strategies for an alternative crop of cowpea for NE Colorado. A secondary objective of this internship is to assist in variety selection for dryland cowpea for the region.

6. Stakeholder Groups the Intern will Work with

A local company has been interested and promoting cowpea as a dryland and irrigated alternative crop.

7. Student Learning Outcomes and Opportunities for Professional Development

The intern will learn firsthand of applied agricultural research in alternative crop. They will also learn about the collection and analysis of data needed to determine water use efficiency for irrigated systems. The intern will also have the interaction with industry as we work on the overall management of cowpea as an alternative crop option. The intern will also learn about the role and workings of extension agents and programming that is put on by extension. The intern will also learn about developing alternative crop options for producers in Colorado.

8. Mentor Style

The mentor style that we have implemented in previous interns is to help them develop the plan of work as related to the goals of the project.

9. Availability of Travel Funds

Travel funds are available for field data collection and stakeholder engagement.