General accomplishments for the year - Any real exciting news or discoveries that you want to share?

➢ Second year of the dryland cover crops project. We are starting to get a sense of what works and what doesn’t.

➢ Second year of the industrial hemp trial
  • Earlier planting, better stand, higher yields
  • Still many unknowns and opportunities
2016 Industrial Hemp Variety Trial

- **Stem Yield (lb/ac)**
- **Seed Yield (lb/ac)**

Varieties:
- Tiborszallas
- Eleta Campana
- Felina 32
- Feronon 12
- Futura 75
- Monoica
- Carmaleonte
- CS
- Fedora 17
- Bialobrzeskie
- Diana
- USO 31
- Santhica 27
The Feasibility of Cover Crops in Dryland Cropping Systems in SW Colorado and SE Utah

http://drylandcovercrops.agsci.colostate.edu/
Winter Peas, Berseem Clover, Sorghum-Sudan, Proso Millet, Teff, Nitro Radish, Purple Top Turnip, Sunflower, Buckwheat

- Preliminary results: Increased infiltration & microbial mass / Less water and less NO3-N
- January 18: Farmer appreciation and mid-term review
- February 9: Soil health workshop
Overview of staffing – key people and give us a sense of full time versus temps.

- Jerry Mahaffey—Technician III, full-time
- Courtney Roseberry—RA I/Cover Crops Project
- Neeta Mahaffey—Admin. Assistant I, 1 day/wk
- Summer help (2016): Dennis Pottorff
- New manager soon!
What are the major things that limit your operation? What are the key vulnerabilities?

- **Staffing:** Limited staff, difficulty hiring qualified personnel
- **Ideally there should be a manager and separate faculty/research staff**
  - Farm manager, 1-2 RA, 1-2 Faculty or RS
  - 1-2 Extension Specialists housed at the SWCRC such as forage/grazing, specialty crops (apples, wine grapes, other)
- **Alternative:** Western Colorado Research & Outreach Center with a YJ outpost to reach a critical mass of faculty & support personnel
  - Importance of farming, ranching, and hunting in SW Colorado
What are the major things that limit your operation?

What are the key vulnerabilities?

• Difficulty attracting graduate students due to distance. Housing would help.
• Aging equipment (center pivot, combines, planter, etc.)
• No lab or greenhouse facility
General update on facilities and advisory committee - what would you change?

• Facilities update: Nothing new to report
• What would I change?
  – Get some sort of housing to attract graduate students.
  – Upgrade the farm/research equipment (e.g., combine with yield monitor, no-till planter, better sprayer).
  – Get a small but well-equipped lab to do basic soil & plant analyses.
  – Build a greenhouse to supplement field research. We have a long winter!
General update on facilities and advisory committee
What would you change?

• Advisory Committee history & activities
• What would I change?
  – A representative core group (6-8) of stakeholders/advisors (NOT Board of Directors!) that meets 2-3 times/year to help CSU-SWCRC with well-defined role and rules (e.g., elect chair person and members every three years)
    • Help shape the mission of the Research Center
    • Be an advocate for the Research Center
    • Reach out to stakeholders
    • Review progress and provide feedback
    • Help secure resources to meet goals
Connection to campus? How important to you and your team? What needs to improve?

- Fairly well connected to campus [Scott Hailey, Mark Brick, Jerry Johnson, Jessica Davis, Mary Stromberger, Joe Brummer, Steve Fonte, Meagan Schipanski, Jim Ippolito, Gary Peterson, Dwayne Westfall, Grant Cardon, Israel Broner, Ardell Halvorson (USAD-ARS), John McKay, Try Bauder, Tim Gates, Luis Garcia…]

- Very important to work and make connections with on-campus faculty as well as with regional faculty and extension specialists

- Challenges: Distance, tenure/graduate students
Connection to campus? How important to you and your team? What needs to improve?

- Joint projects ironed out with faculty, department head, and AES with unequivocal time/effort commitments and expected outcomes.
Scientific challenges and pathways to address them?

- Dryland and irrigated agriculture
  - Low & erratic precipitation
  - Relatively short growing season
  - Relatively low crop yields & returns (dryland) → Sustainability
- Soil erosion
- Limited water supply

- Long distance from consumers/markets (shipping cost)
  - Add value to locally grown crops

- Address climate change (Climate Smart Agriculture)
Meet the needs of the community and produce scientifically sound results that are relevant, impactful & publishable?

Identify the needs & resources

Prioritize

Cultivate partnerships

Develop clear goals and objectives

Plan & design scientifically sound studies

Execute, evaluate, disseminate
Looking Forward (5-10 years)

- Develop crop varieties that are adapted to SW Colorado
  - Challenges: dwarf bunt, unique environment, etc.
  - Collaboration with Utah & Idaho
- Continue assessing cover crops as a way to enhance the sustainability of dryland cropping systems and develop BMPs.
- Design and execute a program that meets the needs of irrigated agriculture, in collaboration or partnership with:
  - Ag producers in Dolores and Montezuma counties
  - The Dolores Water Conservancy District
  - The Southwestern Colorado Water Conservation District
  - USDA-NRCS
- Alternative or Specialty Crops—Apples, wine grapes, malting barley, hemp (agronomics, genetics, uses, added value, economics, markets, resources)!